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THE WAREHOUSE AND THE FACTORY IN ARCHITECTURE.

THAT is a warehouse? When the present writer was a student in Germany, a comrade of his—one of those polyglot Poles, who were present in every polytechnical school, art school or university course on the continent of Europe—a man who spoke every language in use among his contemporaries—asked one day what was the English word for "such a building as that." The word warehouse being furnished and explained to him, he expressed the greatest delight, finding sufficient reasons for the belief that no other modern language of Europe possessed an equivalent term. Probably that is true, for as far as contemporary evidence goes no language has the equivalent term of any word in any other language. Translation is falsification (and that phrase comes closer than most translations do to their originals, to the ancient saw: Traduttore, Traditore). What is called the "translation" of a foreign author implies, or should imply, the restating of that author's thoughts in such terms as may express them aright. Beyond the simple every day words "wet" and "dry," "cold" and "hot," there are no interlingual synonyms; and even thosewords may be found to be used in a larger or a narrower sense as you go from one tongue to another. But the warehouse, as the great eities of America know it, we may take to be a building which is devoted to industrial purposes, involving the safe keeping of a large quantity of goods. A six-story building in use as a manufactory, with huge, bare, relatively low halls, full of shafting or, in these modern days, with the less bulky contrivances of the electrical plant, is not a warehouse; but then it is a "Factory," and thus we reach the definition of the second term of our title. Without splitting hairs too minutely, we come to the conclusion that anything is either a warehouse or a factory which is devoted to the rougher kind of business enterprise; that is to say, not primarily to offices where professional men

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sit quietly or clerks pursue their daily task, but one where the goods are piled up, where the unloading and loading, the receiving and the shipping of such goods goes on continually, where the floors are to a great extent left open in great "lofts" and where in consequence the general character of the structure within and without is the reverse of elegant. It may be costly, it may be thoroughly built, it may be, as we shall have reason to find in the course of this very paper, an architectural monument; but it can hardly be minutely planned, with many refinements in the way of interior arrangement, nor can it be the recipient of elaborate exterior decorative treatment of any kind. The windows can hardly be grouped in extraordinary combinations—the external walls will put on the appearance of a tolerably square-edged, flat-topped box, nor will the external masses anywhere break out into porches or turrets. Delicate stonework is not for the warehouse or for the factory. Sculpture is not a part of its architectural programme. Color, if applied, and it is apt to be applied rather freely, is of the nature of large and somewhat boldly treated masses of natural material supposed to contrast agreeably one with the other in their not very positive hues.

This being our subject, it is found to be a rather interesting subject in view of the really attractive buildings of this sort which New York and other cities have seen erected during the past quarter century. Some slight attempt at verifying dates has ended in confusion; nor is the writer able to say, at present, which of all these buildings which he has been considering is the first, or which are among the first. To whom is due the credit for the introduction of that type of building which is perhaps the most common among them-which is, at least, the most notably characteristic of the whole group? Is it the building at 175 Duane street (Fig. 1) or (Fig. 2) the De Vinne Press in Lafavette Place? Those two buildings are the work of the firm of Babb, Cook & Willard, of New York, and they are of the years between 1877 and 1885. Perhaps they were the first to present the character which we wish to insist upon, here, as being the most marked among all these warehouse buildings. The massive structure of rough brickwork with no highpriced material—no face brick of any sort used anywhere about the building (except where actual castings in terra cotta are the order), the effect produced by very deep reveals, a natural result, by the way, of that relegation of the lower stories to mere groups of piers with larger openings between them; the absence of a projecting cornice, indeed of any wall cornice whatsoever and the substitution for it of a parapet of one kind or another, very often a mere brick wall pierced with open arches; the use in some cases of a roof cornice, that is, of boldly projecting eaves which, however,

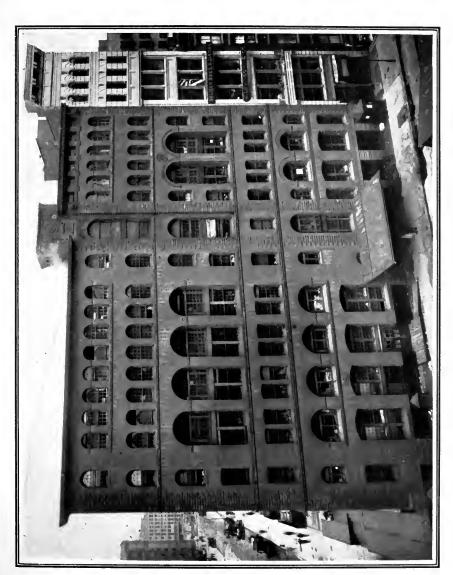


Babb, Cook & Willard, Architects. FIG. 2.—THE DE VINNE BUILDING. Lafayette Place and Fourth Street, New York City.

are but small as compared with the height of the wall or the mass of the structure; the prevalence of a roof so nearly flat that it does not in the slightest degree affect the external appearance of the building; this architectural problem is the one proposed and to a very great extent successfully solved by the designers of these now rather numerous structures.

The building, Nos. 173 and 175 Duane street (Fig. 1) is of simple character and has only one street front to show us. It cannot be compared to its rivals, the buildings of the same class which are to be mentioned with it. The combined windows, two, two and a lunette, under one arch are a poor and cheap device, and the filling with brick walling and arches of the space within the larger opening tends to prevent the use of deep reveals. The pair of simple round-arched openings below each of those great recesses cannot be thought more original or more significant. The double superstructure—the two arcades of seven and thirteen openings, some filled with glass, some open to the sky, that is a brave thought, if you please! It is so that designs are made, if they are to be really designs! The invention of such a pierced parapet as this might almost be thought to date from this facade, it is so obviously called for here. And there are some well-placed and admirably designed bands and archivolts of terra-cotta; the ornamentation kept down to the severe, conventional patterns, the platted and twisted band, "strap-work" and "knot-work," such as befits a workbuilding. It is, however, the De Vinne building which shows what this style is capable of; and for this we have the fixed date, 1885.

Of this building (Figs. 2, 3 and 4) it is to be said that no photographs give the full sense of its bigness, its breadth and its mass, More than once visitors on their way to see it have been pulled up suddenly by a sudden sense of its large presence; it is not quite what they were looking for, but much more broad and ponderous. Now, does this point to any fault in design? Is it of necessity a fault, if your masses are larger and the general "scale" of the building greater than usual? If so, it is a fault shared by every Greek temple bigger than the Theseion. If the Greeks had possessed the photograph it would have altered their style, once for all; for who would have built the temple of Zeus at Olympia, 90 feet wide, or either one of those at Selinus or Akragas, 75 feet wide, in such a style that the little shrine at Rhamnus, 33 feet wide, would have shown itself, in the sun-picture, as big and as imposing as the building of twenty times its mass and its cost? No, it is not a fault, if a building proves to be greater in its whole and in its parts than the faithful portrait had shown it to you! You had lost nothing, you missed nothing, while you studied its image; and you gain much, now that the building itself confronts you.

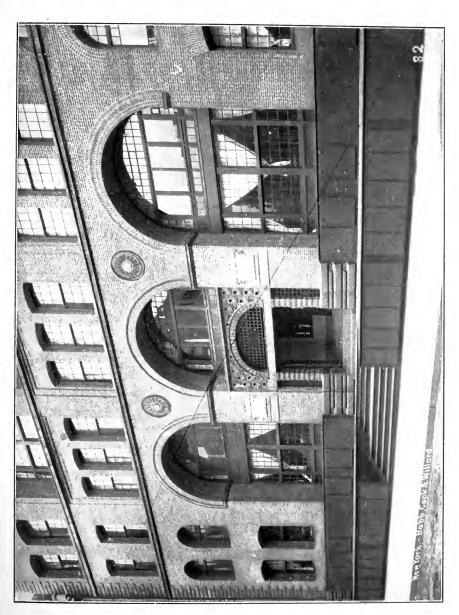


Babb, Cook & Willard, Architects. FIG. 3.-THE FAÇADE OF THE DE VINNE BUILDING, ON FOURTH STREET. Lafayette Place and Fourth Street, New York City.

The three doorways on Lafayette Place have a reveal of forty inches, less the slight lap of the wooden moulding. The three great arches above have the same reveal, and, as to those combinations of many windows under one window-head, let the difference be noted between them and what seems the same motive in the Duane street building, Fig. 1. That is always a doubtful thing to do, to exert yourself to make three tier of windows look like one; but as attempted in the smaller building it is feeble and without apparent purpose. Here, in the De Vinne Building, the great arched opening, sixteen feet wide and three times as high, has no subdivisions more massive or more constructional than slender window-bars and thin panels of light material. The four large openings on the side on Fourth street are built with twenty-four-inch reveals. The smallest windows have their jambs sixteen inches wide.

So much for ponderable realities; and thereto must be added such considerations as the admirable treatment of the segmental arches of the ground story—their extrados stepped off and so fitted to the courses of brick; and the breaking of the deep jambs by a very small and thin rebate, a mere twinkling line, adding marvellously to the effectiveness of the massive reveal. The extension on Fourth street, shown in Fig. 3, is just enough varied in design from the original and larger mass to express the idea of a kindred structure of a later period, and the zone of separation between them is most ingeniously managed. As for the delicate ornament in relief which surrounds and invests the main doorway of entrance, it is to be judged fairly well as it is seen in Fig. 4; and it serves as an almost perfect example of how ornament may be concentrated at one point, while still serving well the general purpose of the building as a whole.

To be compared with these is the building in Centre street at the corner of White street, the work of the firm already named as singularly successful in this attractive, this worthy method of design (see Fig. 5). That building, which we will call by the name which is given in relief, in dark-red terra-cotta upon a sign on the corner pier, and of which the initials H and S occur in highly decorative panels elsewhere on its Centre street front, is unlike the De Vinne Building in that the great uprights take precedence even of the most important—the largest—the most significant arches of the exterior. The piers, three feet square and from that to four feet on the face, are carried up in unbroken line from sidewalk to skyline. They grow thinner, of course, as they ascend, but they keep what may be called their "face value." Where it has been the wish of designer to use small windows as if for the sake of employing sash of a more usual and certainly more handy size and character, these piers serve merely as pilasters to divide up the wall into bays, which



Babb, Cook & Willard, Architects. FIG. 4.—THE LOWER STORIES OF THE DE VINNE BUILDING. Lafayette Place and Fourth Street, New York City.

wall at the same time they stiffen in the way which all primitive and unsophisticated wall-building is done. Again below, on the ground story, where the whole surface of the exterior wall is to be broken up into doorway and window-opening with as much glass as possible, only the barest necessity being allowed to govern the size of the masonry wall, the piers are isolated pillars. In one story alone the system of semi-circular arches is carried out for the whole extent of one story and surrounds the building with a belt of similar openings differing somewhat in size and in detail, but altogether similar in treatment. Here is what no other one of our warehouse buildings has, the archivolt of a great arch disappearing into the plain brick reveal of the square piers. This suggestion of the "Roman Order," this hint at the supremacy of the post over the arch, is not to be found anywhere else; for all these buildings are of a character which might be called Romanesque if the name of an ancient style were to be attached to them; nor is it clear that it is a happy result in this case or that the treatment of the smaller arches in this story—those in which the width of the archivolt is retained throughout the vertical impost until the sill of the windows is reached, is not a better architectural motive. That is hypercriticism, however. The Centre street front of the Hanan Building is one of the most striking and effective and one of the most sincerely designed of all the warehouse buildings which we have to consider; but the reader should study our photograph; for the building is now (October, 1903) so covered up with signs that its charm is lost.

Very soon after this was built, by the firm of McKim, Mead & White, the Judge Building (Fig. 6) in Fifth avenue, at the corner of West 16th street. It is confessedly studied from the buildings which we have named already; but its treatment with a much more decorative system of design—with a much closer approach to the modern office building, tends to separate it from our category. It is easy to see that another selection might be made from which this building should be excluded as being very much too "architectural." The very unexpected and effective rounded corner where the two principal facades meet; the repetition of the treatment of those very large and highly developed quoins on the two other corners, especially that treatment which is to be seen at the extreme western edge where there is a large offset in the wall, and where the mass which is in retreat comes into sight beyond the main corner, as to emphasize effectively the chainage of the main structure; the refined group of mouldings like a classical entablature which marks the springing line of the greater arched openings and the smaller group of mouldings at the spring of the arches below: these, and more especially the wall cornice with the heads

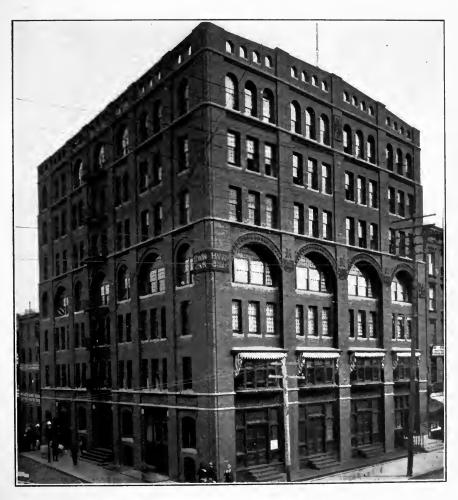


FIG. 5.—THE HANAN BUILDING. Babb, Cook & Willard, Architects. White and Centre Streets, New York City.

which pass for gargovles, whether they serve as such or not, are all of them claims upon our attention as taking the building out of the Factory-Warehouse group into a more generally recognized class of architectural design. The pilasters and even the columns of the entrance front are of less consequence; they might be added to the De Vinne or the Hanan building without impropriety; and the admirably conceived string course which is carried across a part of each of the two façades, namely that which separates the groups of three among the windows of the fourth tier from the larger pictures of windows just above, are also admissible, even in a ware-The same thought is carried out in the moulded sill-course of the uppermost row of windows. The artistic thought involved in putting those two broken sill-courses in and stopping them where their need exists no longer, stopping them with a simple return, is one of the most charming things to be seen along our greatest thoroughfares.

And so it is that if the student of such things dissents entirely from the plan of including this among warehouses, he is not to be villified for his opinion or even for the bold expression of it. It can only be urged that this seems to give the most interesting example which is possible of the warehouse treated in a grandiose way, treated in a way to fit a Fifth avenue corner. And let the reader study our photograph, for the building it represents has perished. Even now, in October, 1903, the top of it is taken off; it is in the way of being altered out of all recognition. So it goes in a modern city of approved business habits. Wight's best building, the unique Academy of Design, has gone; the two best things that Eidlitz built are, both of them, swept away. Haight's admirable Columbia College library and halls are all destroyed: and this in the lifetime of their creators. And all this has been deliberate.

There is much architectural significance in the design of the lost Tarrant Building (see Fig. 7) which once stood in Warren street, two blocks west of Broadway. This was destroyed by fire; it is one more little custom of the American considered as citizen, to burn up his buildings at intervals—self-congratulatory, if only the occupants escaped death. The warehouse was the work of Henry Rutgers Marshall; and if this subject of ours will allow of such extension of its limits as to include some of the buildings which are not warehouses and yet have received this same architectural treatment, we shall find that Mr. Marshall has done other things in the simple brickwork which challenge comparison among modern designs. All that we can give of the Tarrant Building is a reproduction of the author's drawing. It appears that no adequate photograph of the structure was taken while it still existed; and this mainly because of the obstructing mass and confusing hori-

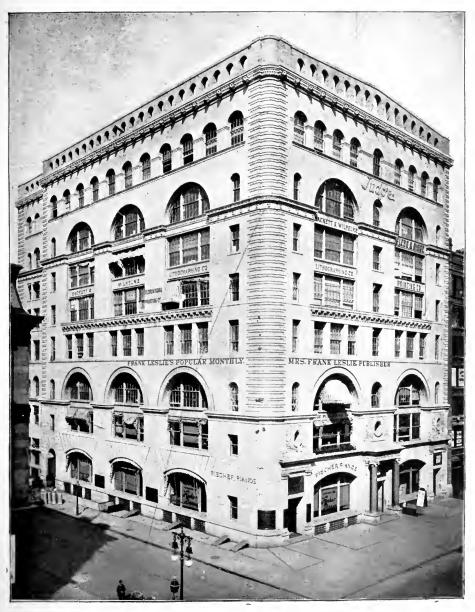


FIG. 6.—THE JUDGE BUILDING. McKim, Mead & White, Architects. Fifth Avenue and 16th Street, New York City. (Now in course of reconstruction.)

zontal lines of the elevated railway. Nor is it well to spend much time in analyzing a building which has perished. The admirable treatment of the brickwork in two colors is all that the present writer clearly remembers in the building as it stood and it is better to look for even that attractive motive to more recent and still existing buildings.

The Tarrant Building was of about 1890. Of the same age, or thereabout, is the warehouse at the corner of Spring and Varick streets, the design of Charles C. Haight. This building is shown in Fig. 8; and he is not to be blamed who thinks that it is the best, because the most suitable, design of all. Let any one note the peculiarities of the design and consider them together, and separately, and decide whether they do not embody nearly everything which goes to make up an admirable design of a simple character. The high basement, faced with cut stone, and with all its openings closed at the top with flat arches, with enormous voussoirs accurately cut and doing their work perfectly, represents two stories of rooms within. A moulded and dentilled string-course acts as a surbase for this basement story. A brick wall, six stories high, broken only by two slight sill-course bands of brick work corbelled out, course beyond course, in the simplest possible fashion, the windows small and especially low for the mass of wall around and above them (in which characteritic the openings of the basement story share), the arches whether segmental or flat, very deep in proportion to their span and telling their story of abundant strength, color introduced in horizontal bands at the sill, at the top of the jamb and half way up the pier of each row of windows and again half way between each horizontal belt of openings; all that is wanted to make a design of this is just that which every design needs as a primary requirement, grace. But grace is exactly what this design contains. It is a rather favorable instance of elegance used so as to be the most marked characteristic of a very simple exterior. The proportions of openings to wall space are fortunately better than those which must of necessity follow from the requirements of office work or residence. More wall surface is allowed than is generally practicable in city building. Of this fortunate circmustance the best use has been made; nowhere is there a more perfectly successful design of extreme simplicity, nowhere a better spacing of square openings in a plain wall. And that the openings are not all square—that some of them have segmental arches; or else, if you please, that they have not all segmental arches, that some are thought to do better with the horizontal soffit and others with the curved intrados, is to the hypercritical the most serious fault, if there is any serious fault, about the building. Why should some of the windows be thought to need



FIG. 7.—THE TARRANT BUILDING. Formerly at the corner of Warren and Greenwich Streets, New York City. Henry Rutgers Marshall, Architect.

a segmental arch? That fidgetty kind of questioning is very disagreeable to some students of modern architecture; but it is so very natural to others—it comes so inevitably to the front whenever we are thinking about the why and the wherefore in a design which is worthy of our notice, that it is to be given a place. Should we prefer the building if all six courses of windows had segmental arches? Yes—or at least we should prefer it, probably, if all except the top story were so treated. The uppermost row of windows, as forming almost a terminal frieze, and with the tops of the windows cut off by the preparation for the wall cornice (which is somewhat larger than so simple a building requires) are entitled to be square if they will, even if all the other windows in the brick wall had rounded heads.

In all this there has been no mention of the recessed wall on the left, on the Spring street front, with the bits of corbelling which bring the recesses out again to the main surface of the wall. In like manner nothing has been said of the very simple and effective porch of entrance. Nor is it practicable to dwell upon the details of the color system as one would be glad to dwell upon it if this building were the only subject of our inquiry. Assuredly the De Vinne building is greatly more architectural in character, the creation in itself of a new style; but as certainly this Garvin building is the typical work of low cost and obvious utility.

Some of the newer warehouse buildings are still more simple in character. It is one of the delights of this particular inquiry that one sees in the treatment of these recent and very plain-very utilitarian-structures, a wholesome architectural influence, coming, without doubt, from those buildings which we have named already and which seem to be, on the whole, the prototype of the movement. One of those new buildings is the prodigious pile which fills the whole river front, and indeed the whole westernmost block, between West 26th and West 27th streets. Our view, Fig. 9, is taken from the south, and shows the 26th street flank and the comparatively narrow front on 11th avenue, although that front itself is of 200 feet. There is a far away, unpretending, unsophisticated look about the building. The designer has felt and has wished to express his feeling that he is not anywhere near the world of residence, of the life of the city, as that is generally understood; that nobody who is likely to look twice at a building for its own sake will pass his way unless he is so very earnest a scholar that he hunts it up because of its subdued and quiet reputation. The building is the warehouse of the terminus of no matter what great railway; it is called the "Terminal Stores," but it is announced as being the property of the Terminal Warehouse Company, the office of which you enter by the little round-headed door just beyond the



FIG. S.—BUILDING OF THE GARVIN MACHINE CO. Corner of Spring and Varick Streets, New York City. C. C. Halght, Architect.

broken telegraph pole and the lamp-post which stands near the corner. The reader is asked to enjoy the brick cornice on the avenue front, built with long, thin corbels and little arches. He will indeed see the same study of mediæval fortification in other storage warehouses, but it is so natural and obvious a device that he has a right to enjoy it afresh every time it occurs.

The long front on West 26th street is one of those walls which could not be altogether spoiled except by the most wanton "uglification," by the senseless addition of misunderstood ornament, and yet it has a charm given to it by the simple device, which is also a good one, for the protection of the building against fire on the



FIG. 9.—THE TERMINAL STORES.

11th Avenue, from 26th to 27th Streets, New York City.

G. B. Mallory, Architect.

exterior—the device of setting the fireproof shutters four inches in from the face wall. It can be understood what that signifies. It is evident that with the shutters fitting into a rebate, made by the four-inch offset of brickwork, the tongue of flame from across the street cannot so conveniently find its way inward, following the draught of air. It is greatly to be regretted that this simple improvement has not been repeated on the river front, where the shutters come outside of and upon the brickwork of the wall without the rebate.

As for the avenue front, it was practicable to leave that so very solid, to pierce it so little with windows, that two most attractive things were possible. One of these is the enormous doorway, the huge, semi-circular arch with short imposts. The fitness of it, the

obvious necessity of having an entrance to the central—street-like passage way—so ample that the largest loaded truck can enter it readily, is not the only reason for admiring this great arched doorway. The other attractive feature is the "staggered" arrangement of the windows in the projecting masses at the two ends of this façade. They are not staircases, though the disposition of the windows makes one think of that possibility, they are arranged in that way, apparently, for effect alone; but the effect has been secured.

Russell Sturgis.

 \boldsymbol{A} second paper upon later buildings of this class will appear in the February number of this magazine.



DETAIL NEW AMSTERDAM THEATRE. Herts & Tallant, Architects.



"GORDON HALL," THE HOUSE OF DAN R. HANNA, CLEVELAND, OHIO.

HE adaptability and fitness of the style of building prevalent in England in the early days of the Renaissance, to our domestic conditions and modes of living, are perhaps the most notable reasons for its adoption and extensive employment in America. Particularly is this true in the designing of country establishments. Here, where the very nature of the work makes it incumbent upon the architect to arrange harmonious relations between buildings and neighboring conditions, this style of dwelling is found peculiarly suitable, because of its well-known picturesque qualities; and any style less congenial-except when deftly treated, becomes undesirably conspicuous and unpleasant. The extent of its use, however, implies no necessary disparagement of buildings designed in an Italian manner or to splendid schemes whose lines are drawn under the present French influence, for as the reader will readily understand upon a little consideration, the question of comparison is to a great extent of an economic nature. The Italian villa and French chateau are indeed beautiful and impressive, but only when they are carried to their fullest consummation. The Italian lends itself beautifully to the landscape under certain conditions, while the building of French lines, with all its imposing elements, its proportions and elaborate details, imperatively demands a continuity, on the same grand scale of richness and decoration, throughout the entire fabric, and extending to its setting, so as to leave no mark of incongruity. Without its statuaried garden, peristyles, and fountains, the Italian villa is incomplete; and discloses a picture containing an element discordant with surroundings that would better adjust themselves to a less formal design.

But place the house built essentially in an early English spirit, modest in its outline, quiet, pure and dignified in its several features; with broad, simple, bricked surfaces, exquisite in texture and color values, the whole bearing a consistent and congenial expression—place this kind of a house in any spot where there are trees and probable lawns, and you have a picture. There is no need of adding subordinate features for the purpose of neutralizing effects. The house demands no more of the setting. It is satisfied, and still it will happily tolerate ornamental accessories possessing the same restraint that is peculiar to itself. It will bear extensive gardens more or less formal. It will welcome the introduction of almost any embellishment in the matter of landscape art, but it remains independent in its beauty, always implying an idea that its accessories are not indispensable, and that being simple in itself, it requires

but a simple setting. It becomes apparent that of the three, the English—the early English it must be borne in mind—is comparatively the most liberal in its extent of adaptability, surpassing even our own colonial, which, like the later Renaissance, involves a setting of considerable stateliness to bring about consistent effects. Economically considered, it is most generous in the extent of its fitness. It can suit a patron of wealth, availing itself judiciously of his means, or, if skillfully handled, it can successfully comply with conditions imposed by a moderate purse. The success of the other two can hardly be attained except by patrons of great wealth—



THE LODGE OF GORDON HALL.

Residence of Dan R. Hanna, Cleveland, Ohio.

Jarvis Hunt, Architect.

whose liberality make it possible to employ materials, with which to rear a work of magnificence, sufficient to bring these styles up to their highest standards.

The people of no other country have been and still remain, more devoted to country life than Englishmen. They have not only loved its advantages, but have in consequence studied its possibilities so as to leave them almost authorities in the disposition and treatment of its various appointments. The question of his abode—at any rate from an artistic point of view—has never received the least of his attention. There is ample testimony of his artistic ability and his keen sense of the picturesque in the many fine old

examples scattered about the British landscapes, and although these buildings of early days may appear in the eyes of the austere academician architecturally imperfect, measured upon his narrow scale of truth in rudimentary elements as to its parts and details, no one can resist the entrancing beauty of the harmony that is invariably disclosed between the great house, the garden, and the surroundings. Details are secondary items, and if they play their part well in the general ensemble, what matters it if a column is short a diameter or two of Vignola, or a moulding is incorrect according to established rules, or, if some other detail is not just



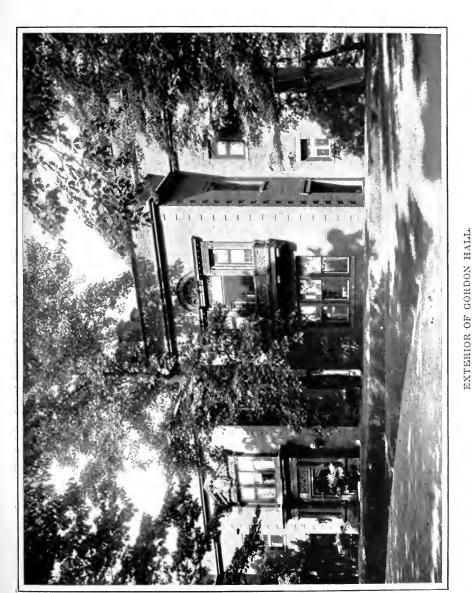
STABLE OF GORDON HALL.
Residence of Dan R. Hanna, Cleveland, Ohio.

Jarvis Hunt, Architect.

right, for which the builders in those days failed to obtain the proper pattern. A more important principle dominated their minds, a principle worked out self-evidently in these old designs with admirable success, and this harmony of treatment with respect to the whole, creating almost a kinship between the house and its surroundings is the pre-eminent feature of the efforts of these old builders, in which their descendants, or rather their disciples, have willingly and irresistibly, but not always successfully, followed. The failures hinted at are accountable in many ways. It is well known that the departure from simple themes to those elaborate conceptions to which developments of the Renaissance gave birth,

is due entirely to the perfecting of architectural standards in England upon-if we may state it so-Italian models, which in turn were based upon the works of ancient Greece and Rome. As the purity and refinement of classic art became better known and its principles better understood and more widely used and applied; as appreciation of the beauty of form increased and a higher conception was acquired of the laws governing composition, it is true a more correct kind of building became current; but the picturesque characteristics of earlier and less informed times were too often cmitted in the eagerness to adopt the possibilities of the new art. While buildings became more ornate, their possible affiliation with surroundings of the old order became less perfect, and an absurd contrast is often to be noted, in the work of this period, between the house and its situation. There was, indeed, no blindness to the picturesque effect attained in earlier works, as quite the contrary is evident in a perfect willingness to retain it in the incorporating of new ideas, and consequently there is apparent once in a while a vain effort to reconcile the two. The earlier buildings "fell in" beautifully with their surroundings. The later ones, howeven, of foreign origin, necessarily required foreign treatment in the way of some intermediate medium to break an abrupt contrast and make them appear to their best advantage, and hence followed the introduction of appropriate accessories borrowed also from continental neighbors. Instead of the old-fashioned English garden sufficing, it was essential to render the grounds adjoining the house in a progressive break of style—using a long process of transition in crossing the breach between the house, the garden and its decorations and the natural features of the landscape.

Modern architects of England, and a few in this country, that have distinguished themselves in handling the English motives (sometimes in a very original manner) have readily benefited by the lessons of profit and loss offered by the architectural history of the Renaissance. No other domestic models offer such a wide field for original development, none so elastic in opportunities to express the individuality of the designer, and none better upon which to conceive a picturesque design than those old buildings of the period, when the influence of Italy was but slightly felt in England, and not yet strong enough to eradicate the romantic enthusiasm of its builders, which is so thoroughly stamped upon their works. Availing himself of the incentive found in principles and detail, the architect can, in his design, produce an exceedingly attractive composition. With this conception a singular fulfillment is discovered in the design of Gordon Hall. The photographs accompanying this article, with all their shortcomings, show us an engaging example of the outgrowth of this significent



Residence of Dan. R. Hanna, Cleveland, Ohio.

Jarvis Hunt, Architect. Decorations by the Brooks Household Art Company of Cleveland. theory directed by an instinct truly artistic. The keen sense of the picturesque which materially holds a paramount interest in all of Mr. Hunt's work—especially in country houses—found a ready and sympathetic ground to work upon here, for Gordon Hall occupies a beautifully situated site, full of the handsomest trees to be seen anywhere, with broad stretches of greensward to the west, besides its own well-kept lawns immediately adjacent. That such conditions irresistibly invited sympathetic treatment in the mind of the architect is scarcely to be wondered at, but such an accomplishment is not always an easy matter, and particularly under the



THE VERANDA; GORDON HALL.

Residence of Dan R. Hanna, Cleveland, Ohio.

Decorations by the Brooks Household Art Company of Cleveland.

circumstances that governed the planning of our subject. The lot, by the nature of its boundaries, being narrow and long in the direction North and South, and the grade virtually level, with a general appearance of uniformity everywhere, carried a condition that decreed a certain uniformity in the scheme of building. A home of a rambling nature in plan and irregular in composition, no matter how poor its architecture, usually presents itself favorably in a picturesque light, a result which is almost inevitable under such conditions. But how rarely is picturesqueness a concomitant of uniformity and symmetry! Gordon Hall forms an instance of



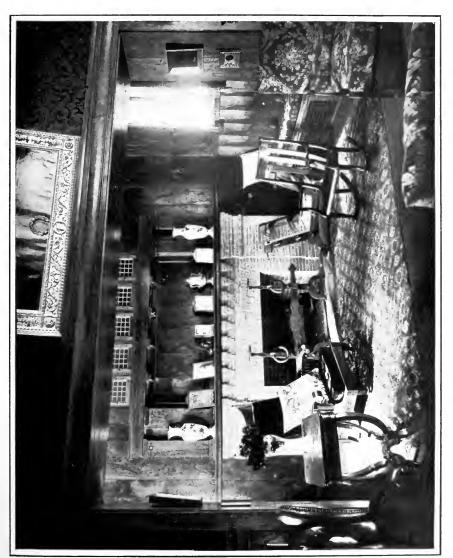
THE LIVING-ROOM OF GORDON HALL.

Decorations by the Brooks Household Art Company of Cleveland.

Jarvis Hunt, Architect.

this combination which makes it doubly worth appreciation. It has been the labor of the architect to accomplish this one prime object, and that he has done it, and done it well, is evident in the photographs, and more so in the actual building. The house is neither domineering nor subordinate for so skillfully are lines and materials handled and disposed that perfect relations with surroundings have been established and the harmony of the picture is complete. As to its architecture, the photographs disclose that it is good and refined. The whole composition bears an air of dignity and repose, and its features are appropriate and all in due relation to the whole, possessing the same refined and quiet restraint, well detailed, and serving well their decorative purpose.

The lot upon which the house and its appurtenant buildings stand is not very large, extending a thousand feet along Bratenahl Road, with a depth of about four hundred feet, and an L extending obliquely northeast, some three hundred and fifty feet, where are located the servants' lodges, gardener's house, the kitchen gardens, poultry yards, and other appendages convenient to an establishment of this kind. But fortunately the situation of the Hall facing west, as it does, commands acres of beautiful park land by virtue of its being closely united to Gordon Park, whose great sweeps of green and graceful drives in combination with the beauties of the actual private grounds form an estate of enviable proportions. Bratenahl Road divides the grounds from those of the public park, but the division is not perceptible to the ordinary observer, for one indeed appears to belong to the other. A very low hedge lining the simple cinder walk along the front of the lot is the only thing that gives a suggestion of privacy—a gentle notice to wanderers in the park that to go beyond this line would be intrusion. One of the photographs taken from the park side of the road shows well the attractive nature of the approach to the house from the main drive. It is following this avenue which swings gracefully in a semi-circle from the right to the front door and out again to the left that the house is reached and from which, as we walk up to it, a clear view of the house itself is offered. What kind of design could more befit this beautiful place! The presiding character of the house-namely, its fitness-immediately prepossesses and detains the eye. Its easy and tranquil outline is impressive because it betrays a profound sense of comfort in its position, snugly set upon the ground, and surrounded as it is by those noble trees and a broad terrace of turf elevated some three or four feet above the road level. There is almost a human expression of contentment revealed in the restful brick walls that display soft tones of dull reds, grays and blues, heightened here by sunlight and here again variegating in shadows and reflexes, that blend quietly with



Jarvis Hunt, Architect. MANTELPIECE IN THE LIVING-ROOM OF GORDON HALL. Residence of Dan R. Hanna, Cleveland, Ohio.

Decorations by the Brooks Household Art Company of Cleveland.

the natural tones about the house—effects peculiar to the brick of which the walls are constructed. The bricks used are a New Jersey variety known well to the profession as rain-washed, and these laid up with horizontal joints deeply raked out, and consequently plainly continuous around the house, and the inherent quality of color in the brick, impart, also, a delightful vesture of age. In short, the effect of it all upon the beholder and written plainly upon these warm brick walls is summed up in the one significant word—Hospitality.

The design is, as a whole, symmetrical—with only the north extension, comprising the service portion of the house, and the nook projection at the south end, as features somewhat irregular; still counterbalancing each other in general effect and thereby not disturbing the precise balance maintained in the principal part of the house by the jutting out of two wings beyond the central surface, from which there is another projection emphasized by the treatment which the entrance receives. This central projection is distinct by reason of the duplication existing in the other two facades. The quoins at the corners play their part well in securing the appearance of stability, and the simple terra-cotta cornice, very narrow but deeply under-cut, giving a well defined shadow line with the brick parapet above it simply coped; and the bold spheres of terra-cotta at the angles confer all that is needed to give a finish to the outline. The triple arrangement of windows in the wing elevations receives, in the second story of each, a strong accent in the shape of a treatment common in the later days of the Renaissance and to our colonial work. The proportions are carefully studied and the balcony with its three panels carved in Elizabethan open pattern forms a proper base for this interesting feature of each wing. The entrance is flanked by pairs of Doric columns of terra-cotta upon brick pedestals surmounted by a cornice purely classical, forming an imposing portal which makes one instinctively feel that passing through it will disclose an equally imposing and generous interior. A detail that may appear somewhat incongruous to many is evident in the Gothic frame around the doors. It happens to be a license freely indulged in from the time that classic forms were first indiscriminately grafted around Gothic shapes, down to the present time, jarring the sense of historical consistency because of the thought of conflict, more abstract than real, between the styles. Consistency, however, is a shiftless, unstable, element in human nature, varying in its impression upon individuals, and in this case the architect was warranted by his own principle to believe that this frame would serve his purpose best in decorating the space between the columns and the doors. The effect is not displeasing. The legitimate use of the decorative

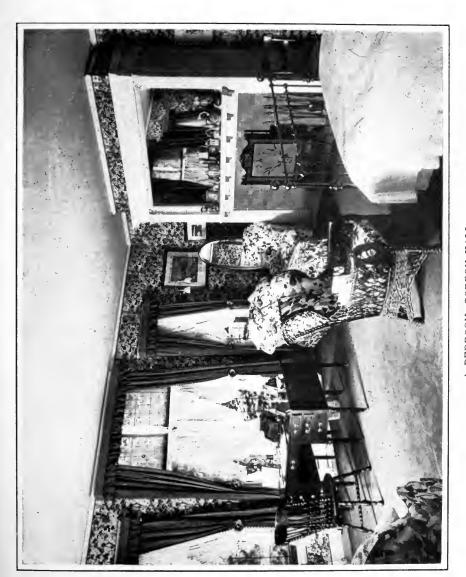


Residence of Dan R. Hanna, Cleveland, Ohio.

Decorations by the Brooks Household Art Company of Cleveland.

panel over the door, however, is more doubtful, as it was a feature commonly employed in England to display the arms of a household. In our democracy it need not apply to such a purpose, so that this finely modeled panel is meaningless, but not a blemish. Going around to the south, this dimension of the house follows the line of the lot. From this point on the house is extremely plain and severe. A distinguishing feature in the south end is the external treatment of the chimney nook whose walls are carried up a trifle higher than the coping of the main house, and by its toothed parapet suggesting a type of building current in the border times of England. The rear of the house owes its charm to the exquisite texture of the brick, for it consists of only a broad surface randomly punctured here and there by a window. There is an evident purpose, however, that explains its present barrenness and want of some relieving feature, for, in the ripeness of time, this broad, naked surface is to be completely covered with vines or ivy.

Passing into the interior, the pictures given herewith can serve our purpose better than verbal description. The spaciousness of the house and its generous hospitable arrangement in plan are most striking. Like the exterior, the interior of the house is freely and vigorously handled and a paramount fact is that here, as well as externally, Mr. Hunt shows himself in favor of texture and color rather than mouldings and carvings. The rooms being large and generous, all admit of the broad spirit of treatment and the arrangement of the woodwork in the hall and living room is designed well with the object of bringing out the inherent qualities of the grain in the wood. The hall, which is of enormous size, has a wainscot eight feet high, consisting of broad oak slabs of beautiful grain and some twelve to fourteen inches wide with a square open joint between each slab of depth just enough to secure a strong vertical line. The effect of this wainscot, which is stained black, with just a simple cap that also forms the door heads, is admirable and accomplishes its object of appropriately finishing the room. Opposite the door as one enters is a great open fireplace with a breast fully twelve feet wide, built of the brick that is used in the outside walls and forming the central feature in this interesting room. Recesses from which coat rooms are accesible are placed on either side of the fireplace and under a common landing formed by the stairs ascending from either end of the room in somewhat grand proportions. Though a trifle more ornate than the detail in the rest of the room, the staircase is not out of keeping in general effect, as its newels and rail are massive and heavy. The panels formed by the construction in the ceiling are rough plaster-untouched by the decorator-and the beams themselves are encased in oak treated the same as the wainscoting.



Jarvis Hunt, Architect. Residence of Dan R. Hanna, Cleveland, Ohio.

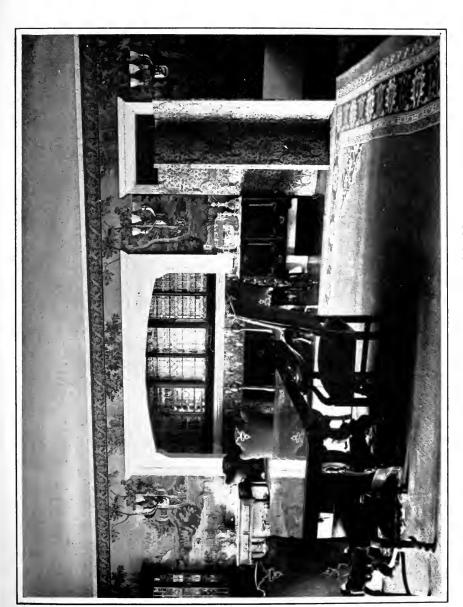
Decorations by the Brooks Household Art Company of Cleveland. A BEDROOM, GORDON HALL.

Jarvis Hunt, Architect.



3

Jarvis Hunt, Architect.



THE DINING-ROOM, GORDON HALL. Residence of Dan R. Hanna, Cleveland, Ohio.

Decorations by the Brooks Household Art Company of Cleveland.

All in all, the hall is extremely interesting in the way its various features are mutually related and conspire sympathically to give a smooth continuity of effect. The low-toned tapestry that fills up the small wall space above the wainscot, the dull Venetian red in the rugs, the generous furniture, the hangings, of Genoese velvet and dull red in color, are all appropriate and harmonize successfully with the architectural spirit of the room. One disappointing impression received, however, is given by the superfluous amount of small furnishings and bric-a-brac strewn around which only disturbs the perspective that would otherwise be a great delight. But perhaps it is not our place to speak of it here for their introduction is due to matters of sentiment that appeal strongly to the family and therefore are rightly justified in their presence.

To the left of the hall is the living room, interesting in many ways, with its beamed ceiling, its panelled wainscot and bookcases, its cosy nook finished solidly to the ceiling in wood and its simple fireplace of gray brick. One is fairly captivated by the beautiful silky texture of the Circassian walnut used in the finishing of this room, and treated skillfully in mouse gray that works well with the tone of the decorations which are in general quiet, barring the pictures with their clumsy gold frames, of which there are too many, and which almost completely cover the deeptoned brocaded velvet that is hung upon the walls. But the picture gallery evidently must be maintained and the room suffer in losing the beautiful effect the decorated surface would give in its changeable tones according as the light strikes it. The east French windows of this room lead into the spacious piazza, a comfortable and attractive retreat and not an unimportant feature in this house.

The dining and sun-rooms are practically in one, as only a glass partition separates them, which is arranged eleverly in connection with the oval lines in the sun-room and the serving tables of the dining room. The two enjoy a floor space, like the living room, almost equal to that of the hall, which is thirty by sixty feet, and it is to this generous arrangement of plan and size of the rooms which merge into one another through wide openings that the airiness and cheerfulness of the house are due. These great rooms comprise the living part of the house—and livable and comfortable do they frankly look—pleasant in the prospects from the windows, especially towards the west, and in the cheerful light the sun sends into them. One distinguishable feature in the dining room is its color scheme. The walls are hung with Brabant tapestry whose predominant tone is a dull Antwerp blue and rather light, and the floor is covered by one of the handsomest rugs I have ever seen. Its color is a fathomless blue with a narrow border of Indian pat-



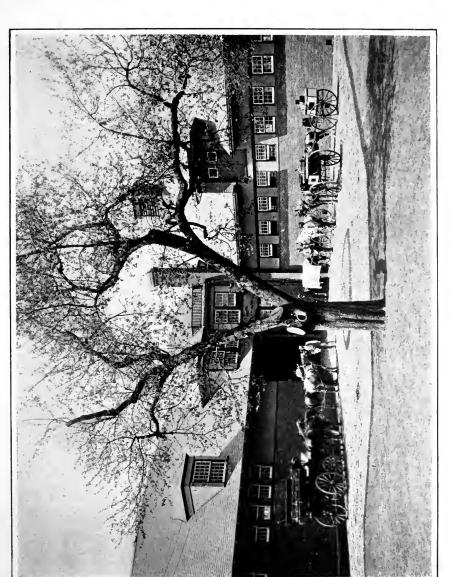
Residence of Dan R. Hanna, Cleveland, Ohlo.

Decorations by the Brooks Household Art Company of Cleveland. BEDROOM, GORDON HALL.

Jarvis Hunt, Architect.



STABLE INTERIOR, GORDON HALL.



EAST ANGLE OF THE STABLE, GORDON HALL. Residence of Dan R. Hanna, Cleveland, Ohio.

Jarvis Hunt, Architect.

tern, a rug which, as it is gratifying to know, is of domestic manufacture. This glorious color is followed well in the curtains and the coverings of the furniture, all in Padua velvet, rich and regal in appearance. It is most unfortunate that photography should fail us in color values, for this room cannot boast of any architectural features, being extremely plain in white enamel, and therefore from our picture wins small appreciation. The sun-room, however, is just the opposite in conditions, for here is an interesting room in point of detail which is refined and done in white enamel. By the very nature of its being a sun-room there is more glass than wall space. The east windows arranged in two groups of three and a casement between, with three-quarter fluted columns serving as mullions, afforded a view down a quaint brick walk, running directly east to the point where it turns, taking the nature of a lane which leads to the north end of the lot where the outbuildings are situated. There is a skylight of oval shape whose glass is of pretty design, against which the cove of the ceiling springing from the cornice abuts, making a dome. The full columns on the side towards the living room are arranged to complete the oval shape of the room, leaving spaces between that are found happily useful for palms and ferns.

The second story is divided into large, generous bed chambers and their necessary appurtenances, which need not be dwelt upon further than that they are well arranged, cheerful and appropriately decorated.

The stable, which is complete in its appointments, the cosy servants' and gardener's houses together with the fine arrangement of the grounds complete one of the finest establishments to be found in the West—convenient, beautiful, and above all, perfectly homelike, a description which would not apply to some found elsewhere.

Charles Bohassek.



DECORATION IN THE EMPIRE THEATRE.
William D. L. Dodge, Painter. Carrère & Hastings, Architects.

THE NEW THEATRES OF NEW YORK.

EW YORK has not of recent years been very fortunate in the architecture of its theatres. It has rarely happened that they have been entrusted to really competent designers, and the consequence is that the design of theatres, both so far as interior and exterior are concerned, has not exhibited the same general progress as has the design of other important types of buildings. There have, of course, been individual cases of good work; but these cases were both infrequent in themselves and were practically without effect upon subsequent designs. Thus, the exterior of the Casino is a very brilliant and successful experiment in a somewhat outlandish style, and has found many admirers but no imitators. The architect of the Casino has also designed other theatres, which, while less successful, lived up to a very respectable standard. As to the interiors, that of the old Lyceum endeared itself to many New Yorkers by its pleasantly restful feeling and the warmth of its general tone; but here again the better thing had no general influence—which in this case was just as well, for the Lyceum, with its soft, pleasant, quiet appearance, was in the way of being a "boudoir" rather than a theatre. Of all playhouse interiors of New York, the most correct and eligible design has been that of the Garden Theatre. While it was not in itself a very attractive performance, it had the advantage of being in a good style and approaching the problem from the proper point of view. With the interior of the Garden to work upon, and with a proper appreciation of its merits and defects, the designers of subsequent theatres could have reached a wholly admirable result; but unfortunately for the ten years following the erection of the Madison Square Garden, the majority of the new theatres were erected



42d and 43d Streets, near Seventh Avenue, New York City. V. Hugo Koehler, Architect.

V. Hugo Koehler, Archi ect.



42d and 43d Streets, west of 7th Avenue, New York City.

by a playhouse speculator, who had neither the money to pay for a good thing nor the instinct to have it made; and the result has been deplorable—not merely in design, but in the mechanics of good and safe theatre construction.

Fortunately, however, that is all an affair of the past. The development of the hotel and amusement section of Manhattan, which began in 1900, has resulted in the erection of six new the-

atres. In all of these more or less intellibeen made to preand better appearthan had been the tres previously æsthetic standards. noticeable a feature pensive buildings ed in New York, fluence on the playthe truth of this trated as much by which has been the older theatres. of the new designs. New York, the Manhattan have and redecorated, which have been visible in fully oneof the better class the total effect of architecture has give the public a ing interiors which



EMPIRE THEATRE DECORATION.

new buildings some gent attempt has sent both a braver ance to the public case with the theaerected. The higher which have been so of all the more exrecently constructhave had their inhouses also; and statement is illusthe reformation. effected in some of as by the character The Belasco, the Empire and the all been remodeled so that the changes taking place half of the theatres in Manhattan; and the new theatrical been not only to number of interestthey can observe

and discuss between the acts, but also to establish a standard of playhouse design, which will have its effect hereafter.

Certainly from the point of view of its effect on popular taste, there is no class of building in which good designing is so necessary as in the theatres. The public, or at least the American public, attend the theatres in a gay and exhilarated, if irresponsible, frame of mind, and all the circumstances of a theatrical performance tend to make them very much alive to their surroundings. While the curtain is up, their eyes are, of course, fixed upon the stage, which alone is made visible, but between the acts the audience has plenty of leisure to take in its surroundings, and is in a peculiarly favorable situation to give them lively attention.



V. Hugo Koehler, Architect. DETAIL OF THE PROSCENIUM ARCH, LYRIC THEATRE. 42d and 43d Streets, west of 7th Avenue, New York City.



EXTERIOR OF THE MAJESTIC THEATRE.

Grand Circle, New York City.

John H. Duncan, Architect.

Thus it is peculiarly important that these surroundings should repay the attention they receive; and the opportunity is one which the better American architects are excellently qualified to turn to good account. What is needed is an interior æsthetically bold and effective, with good telling lines, with lively but harmonious colors and with an abundance of appropriate detail—all of this at once restrained by good taste and tied together by the

prevailing forms A theatre is the last for the display of ment or for any treatment. It is a playroom, and and boldly treated

Whatever the inthe different archithe jobs of designatres or redecoratthey have assuredly ent views of the most appropriate In fact, no six inmore unlike than this number of the ord. They vary all the frankly classical Empire, and frankdesign of the New any man who would the value and force American Archimaking, on the one telligent and effect-



EMPIRE THEATRE DECORATION.

of a definite style. place in the world ineffective refine-modest reticence of showroom and a should be frankly as such.

dividual success of tects who have had ing our new theing the old ones, taken widely differcolors and forms to their purposes. teriors could be those illustrated in Architectural Recthe way between design of the new ly unconventional Amsterdam, and like to compare of the motives in tecture, which are hand, for the the inive use of the old

forms and on the other for the more enterprising introduction of new ones, could not have better material for comparative study than is afforded by the interiors of these two buildings.

The new Empire is an adaptation of the interior of the theatre at Versailles, and a very admirable piece of Louis XIV. work it is. The outer vestibule, as is proper with a passage that makes the transition from the street to a rich and striking interior, is finished in Caen stone, a cool, fair gray material, admirably adapted to precise classic treatment, and one of the few unpolished stones which are fitted for interior use. In the foyer the note of the whole interior is struck. The color scheme is light red and gold as a transition to the richer red and gold of the theatre itself.



PROSCENIUM ARCH OF THE MAJESTIC THEATRE.

The pilasters, cornices, ceilings, and other architectural features, as well as all ornamentation are treated in gold, the wall panels in silk brocades, and the floors with red carpets. The barrel vault of the ceiling has been decorated by Mr. William D. L. Dodge with paintings, which, whatever their other merits, harmonize with the general effect and enhance it. The theatre itself differs from other New York theatres, in that the old-style proscenium arch treatment with columns and entablature has been adopted, but the galleries have been handled according to the modern practice-even to the extent of eliminating all the columns and permitting an unobstructed view of the stage from all points of the house. The color scheme of the theatre is also red and gold, the wall surfaces being treated in red, while pilasters, box and balcony fronts, the cornices and mouldings are of a dull, rich gold. Over the proscenium arch are paintings also by Dodge, the effect of which from the seats below is gav and appropriate. All the draperies and curtains in the house, including the stage curtain with its lambrequin, the hangings of the boxes and the like are in different shades of red.

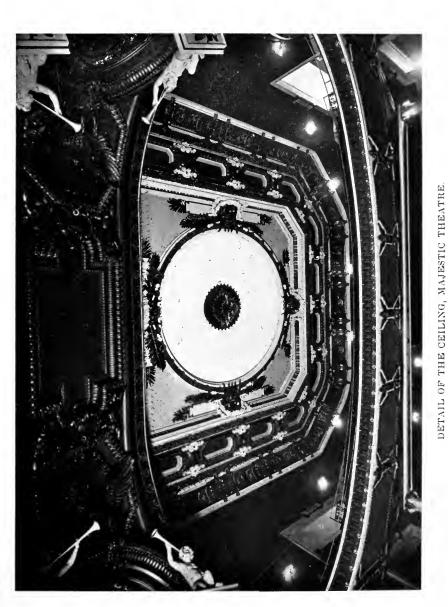
It is not too much to say that this room is one of the most consistent, most appropriate, and cleverest pieces of interior decoration in this country. Every disposition and every detail shows the work of designers, who know the value of the forms and materials they are using and who are perfectly capable of adapting these forms to novel conditions without any loss of effect. The great success of the theatre consists in the propriety with which the striking and telling colors are used, the admirable scale of the detail, which always gets its effect without overdoing it, and the total impression it gives of being rich and gay without being gorgeous or trivial. No better example could be desired of the proper way to translate a classic style into a sufficiently modern equivalent.

Turning to the New Amsterdam, it is to be remarked immediately that one's judgment of its architectural value will be very much influenced by one's opinion as to the need or desirability of the introduction into American design at the present time of any effort after originality. If one believes that it is extremely desirable to break away from the historic styles, one would naturally welcome any attempt in that direction, even if the enterprising designers were not yet entirely sure of their footing. On the other hand, if one believes that at the present stage of American culture, and popular appreciation of the fine arts, a conservative use of well-established forms is the safer and more fruitful course one would not look with so much leniency upon experiments.









which must at the beginning have their dubious aspects. Certainly the New Amsterdam experiment has its dubious aspects, but its most dubious aspect does not consist, as might be supposed, of an extravagance of design or an excessive splurge of color. Its most dubious aspect consists precisely in the absence of bold and effective color treatment. The color scheme of the auditorium is mother of pearl, violet and green, which, even if crudely applied, is a harmonious combination, but is too neutral and delicate in tone for the large surfaces, the long distances, and the necessary showiness of a theatre. It is one of the misfortunes of any attempt to reach novel effects in the fine arts that the classic styles have already appropriated the primary colors and the most suitable forms, so that the would-be original designers are forced to fall back upon secondary colors and less suitable forms.

The greatest need of contemporary American architecture is not so much originality as propriety, consistency and carefulness of design, and the reason for welcoming such a building as the New Amsterdam Theatre is not that its architects have tried to break precedents so much as that they have made a careful, laborious and intelligent attempt to design a building that is finished in every detail; and it is excellence of much of this detail, particularly in the smoking and other subordinate rooms of the theatre, which is the best achievement of the architects. These gentlemen stand for a very high technical standard; and their work is never merely bizarre and crude. On the contrary, notably in a residence which they have designed at 1053 5th avenue, and which is also published in this issue of the Architectural Record, is restrained and informed by a sense of proportion, and the kind of architectural values most closely related to the classical styles.

The new Lyceum Theatre, which is designed by the same architects, as the New Amsterdam, has, however, a very different order of defects and merits. Although framed on more conventional lines, it is, if you please, a much more energetic piece of architecture. The facade is dominated by an order, which, if anything, counts rather too much than too little; and, since the building is situated some hundreds of feet from Broadway, it was a very happy thought to make its situation and front conspicuous at night by means of flaming lanterns, which glare from the balcony over the cornice. The auditorium, also, is more boldly treated than it is in the other theatre. The detail is designed on a much larger scale and is, in certain instances, particularly in that of the garlands, which overhang the boxes, both misplaced and coarse. The repellent masks upon the curtain offer another conspicuous case of a somewhat romanesque imagination. On the other hand, the lobby is treated with a rather conventional reticence, which, however,



BACK OF THE AUDITORIUM, HUDSON THEATRE.

J. B. McElfatrick & Son, Architects.

44th Street, New York City.



J. B. McElfatrick & Son, Architects. AUDITORIUM OF THE HUDSON THEATRE. 44th and 45th Streets, New York City.



Carrère & Hastings, Architects. DECORATION IN THE EMPIRE THEATRE.

William D. L. Dodge, Painter.

flowers very pleasantly in the wall paintings which Mr. James Finn has placed over the doors. The color scheme of the auditorium, in which Mr. Finn also had a hand, is well-combined, but rather morose than gay; the upholstery, the gallery and box fronts being a metallic green and a metallic gold, and the ceiling chiefly a dull blue.

The interior of the Hudson Theatre, on the other hand, while the effect of it is pleasant and quiet, errs on the side of understatement. The façade is simple and dignified, but the means which have been taken to make it conspicuous from Broadway are neither so successful or so interesting as in the case of the Lyceum. In the interior, the effects which the designer have sought are more appropriate to domestic than to theatrical architecture. The fover whose dimensions are pleasantly spacious,—decorated in bronze, green, ivory and gold, and with Louis XIV, mirrors and sofas covered with green velour—is a sufficiently elegant and good-looking apartment, but the scale and feeling is that of a private house. This effect is less conspicuous in the auditorium; but the treatment of this interior is an excellent example of that modest refinement of appearance, which is wholly unfitted to a theatre. failure of the interior in this respect has been so well expressed in one of the daily papers that I cannot do better than quote it here: "There is a general tendency," says the writer, "to subdue and be quietly elegant in the color scheme; but the result is quite lacking in character. One wishes for a few notes of virility, and for some big, strong masses of color somewhere in the ensemble. In brief, the theatre is pretty, but it is very tame."

From this brief view of the theatres which have recently been erected in New York it will be seen that the danger from which the better designed theatres of New York suffer is less that of being vulgarly showy than that of being excessively refined. It looks as if the architects had for the most part been so desirous of escaping the ostentatious crudity of some of the former theatrical interiors that they had fallen into the other error and pitched the scheme of their interior on too low a key. This would not be true of the Empire and the new Lyceum, it would be true of the New Amsterdam only in the special sense, indicated above; it would not be true of the Majestic theatre, which is a vigorous and well composed piece of interior decoration, but it would be true of the other theatres, and it is the fault against which the designers of similar buildings hereafter should be very much on their guard. A refinement that does not count—a weak refinement—has as an unfortunate effect upon taste as a coarse ostentation; and the one character which theatres in New York or elsewhere particularly need is a sort of a good gaudiness. A C. David.



DECORATION OVER PROSCENIUM ARCH, NEW AMSTERDAM THEATRE.

Blum & Wenzell, Painters. Herts & Tallant, Architects.

INDIVIDUALISM IN ARCHITECTURE,

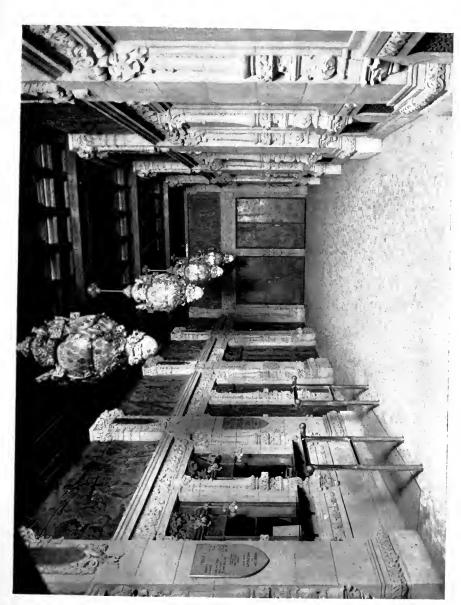
The Works of Herts & Tallant.

T is always difficult to arrive at a correct estimation of contemporary conditions. A moderate perspective is neccessary to obtain an even approximate idea of relative proportions, yet he who runs in this age of hurry cannot fail to observe one salient point which will stand with posterity as the main characteristic of our times. We are living in a period of transition such as never before has occurred in the history of mankind.

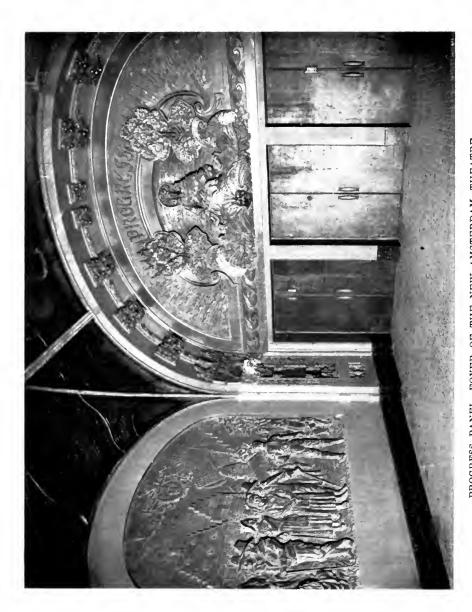
In no field of activity is this fact more prominent than in that field of architecture and the allied arts. Clarence Cook may have been somewhat radical when he wrote that "for three hundred years not a single building has been erected in Europe or anywhere else that has an original claim to admiration or that could occasion the least regret by its loss except on grounds of convenience or utility." Yet, certain it is that the principle of literal adherence to preceding styles, inaugurated during the Rennaissance, has run its logical course to its predestined conclusion. Increasing servility of imitation has resulted in increasing sterility of imagination. During the last ninety years we have had very little in the way of original artistic product. Yet, even this comparative barrenness involved in itself the seeds of reaction. Here and there signs of original inspiration have become again visible. These outcroppings have been for the most part confined to the smallest and least important fields of art, to jewelry, to bibelots, furniture and textile fabrics. Yet, in the face of much adverse and often justifiable criticism the desire for originality and the effort to obtain it has been



FAÇADE ON 42D STREET, NEW AMSTERDAM TREATRE. 42d-41st Streets, near 7th Avenue, New York City. Herts & Tallant, Architects.



Herts & Tallant, Architects. ENTRANCE FOYER, NEW AMSTERDAM THEATRE. 42d-41st Streets, near 7th Avenue, New York City.



42d-41st Streets, near 7th Avenue, New York City.



Herts & Tallant, Architects.

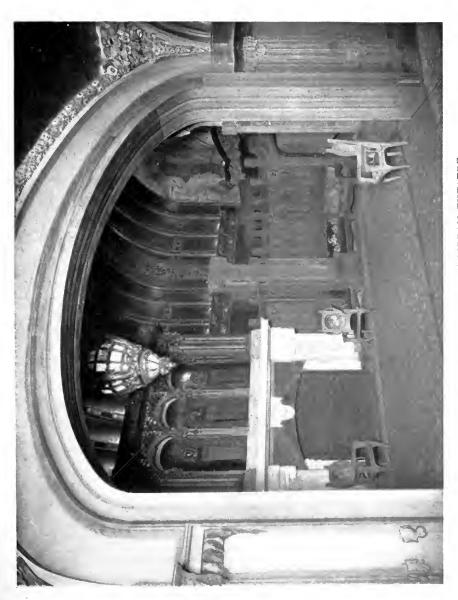
growing stronger, and wherever it appears it should be welcomed, even though the somewhat experimental works in which it is first embodied may not be acceptable to prevailing standards of taste.

In the New Amsterdam and New Lyceum theatres, there have recently been erected in New York two important public buildings, in which the architects, Messrs. Herts & Tallant, have tried to substitute for the current routine a certain originality of conception and treatment; they have tried to give their individual powers of



DETAIL OF NEW AMSTERDAM THEATRE.
42d-41st Streets, near 7th Avenue, New York City. Herts & Tallant, Architects.

design a freer expression than has been customary. This individuality of expression, exhibited in absolute freedom in the New Amsterdam Theatre, under self-imposed restraint in the New Lyceum, is evident in all the work of this firm. They did not, however, permit themselves such complete liberty of expression until they had schooled themselves to avoid the excesses of their good qualities, first by as good an art education as the world affords, and second by the execution of several important buildings designed along the standard architectural lines. They appreciated that vastly more



Herts & Tallant, Architects. THE LADIES' BOUDOIR, NEW AMSTERDAM THEATRE. 42d-41st Streets, near 7th Avenue, New York City.



AUDITORIUM, NEW AMSTERDAM THEATRE. 42d-41st Streets, near 7th Avenue, New York City. Herts & Tallant, Architects.



AUDITORIUM, NEW AMSTERDAM THEATRE. 42d-41st Streets, near 7th Avenue, New York City.

productive of artistic discord than even the exact reproduction of authentic classic styles is the ignorant application of, for instance, the so-called "Art Nouveau" to architecture and mural decoration. To create a style it is not necessary merely to give ductile expression to the most soaring ideas and the most deeply seated feelings, but a systematic and perfectly digested knowledge of every rule of composition must be acquired before the transition can be made and before the architect can be allowed to embody his imaginative vision in a free creative fashion. Thus the work of Messrs. Herts & Tallant is a vehement denial of the right of any man to disregard the discipleship and even the tyranny of set form, unless



DETAIL OF NEW AMSTERDAM THEATRE.

42d-41st Streets, near 7th Avenue, New York City. Herts & Tallant, Architects.

the individual point of view offered in its stead shall righteously meet a present and future need. It is only the achievement of technical mastery that gives even the lightest talent the legitimate means of showing its power. The architects took no forward steps without a knowledge of the ground they already occupied and made no radical departures without previous tests on a smaller scale. Before, however, calling attention to this carefully planned line of progress as exemplified in the illustration, it will be well to give some idea of the course of preparation to which the two partners of this firm underwent and to note some general characteristics of all their designs.

Mr. Herts, who comes of a family of decorators, has received an education which enables him to deal with practical contractors as well as imaginative artists and sculptors. As a boy he at-



STAIRWAY, NEW AMSTERDAM THEATRE.

Herts & Tallant, Architects.

42d-41st Streets, near 7th Avenue, New York City.

tended a public grammar school and in course of time entered New York City College. Here he became restive under the restraint of ordinary tuition in large classes, especially as he was continuously reprimanded by the class instructor for sketching on the fly leaves and covers of his books. At a very early age he left the City College and entered the office of Mr. Bruce Price. had worked there but a few months when Mr. Price remarked a display of unusual talent on the part of young Herts and he persuaded his family to insist upon his entering the School of Mines at Columbia College. This he did after a period of preparation at the Woodbridge School and in 1892, while still an undergraduate at Columbia, he justified Mr. Price's prediction by winning the competition for the Columbus Arch, a competition entered into by forty of the most prominent practicing architects in New York, the competition being decided by John La Farge, Richard M. Hunt, Augustus St. Gaudens and Stanford White. Mr. Herts was at that time not quite twenty-one years of age. After four years at Columbia he settled in Paris and entered the Ecole des Beaux Arts, where his work was always commented upon by the masters and especially by his particular patron, M. Deglane, for its originality and individual quality. The Parisian critics seemed to value Mr. Herts' work at the Salon, where he frequently exhibited, chiefly for its elevation and poetic suggestion. In particular a painting of Ely Cathedral exhibited in the Salon of 1898 called forth great praise for its imaginative power and its expression of atmospheric effects. marked contrast to the earlier career of Mr. Herts is that of his partner. While Mr. Herts never received a diploma from any college, never won a prize or medal at any school, and invariably stood at the foot of his class in the institutions of learning he attended, Mr Tallant gained every prize at both school and college, thus making an interesting balance in the history of the two men. Mr. Tallant's first tuition was received at the Roxbury Latin School, where for six years he stood at the head of his class. In 1887 he entered Harvard College. Here he devoted himself largely to engineering and mathematics, graduating in 1901 with both the A. B. and the A. M. degrees, this being the first time in the history of the college that both degrees had been simultaneously conferred. Besides his purely academic work he contributed illustrations to the Lampoon, of which he was an editor during the entire four years. In addition, he was awarded several prizes for literary essays, and was also known as a remarkable athlete, a reputation which he maintains to this day. After a year spent in the office of Shepley, Rutan and Coolidge, he was awarded the Kirkland fellowship from Harvard, which enabled him to go abroad in the fall of 1892. He entered the Ecole des Beaux Arts the following February and

graduated in the fall of 1896 with the "Prix Jean Leclare," the highest prize open to any foreigner. During his course he received

fourteen medals, covering every line of study from pure mathematics to free hand drawing, modeling, and architectural designing, and was also awarded the Grande Medaille d'Honneur for the year 1896, indicating his graduation at the head of his entire class. It was during their first year at the Ecole des Beaux Arts that Mr. Herts and Mr. Tallant met, and after working together on several important projects their patrons did not hesitate to pronounce them an admirable team. While Mr. Herts has more largely developed the faculty of suggestion, Mr. Tallant possesses that of ex-Mr. Herts is a pression. capable business and executive head, Mr. Tallant is an unusually able engineer. Thus both partners are young men, in the early thirties, who have in all probability a quarter of a century or more DETAIL, NEW AMSTERDAM THEATRE. of artistic work and development ahead of them. Prominent among the characteristics of their work is that it is very scholarly. This is shown, among other things, in their familiarity with the laws of artistic composition. They are not restricted to abso-

lute symmetry, because they possess a sufficient apprecia-

tion of balance; they exhibit no incongruities of scale, because they possess a developed sense of proportion, and where they vary from the standard details of the classic orders, they do not offend good taste. Another well-marked characteristic is their insistance upon the truthful expression in design of the structural requirement, the conformity of the raiment to the skeleton, the demands that all ornament shall form an integral and even necessary part of the design adopted. They hold that new constructural methods and new practical requirements cry out for a new artistic expression, new contents demand a new outward form, and they hold it to



GROUP ON THE FAÇADE OF NEW AMSTERDAM THEATRE.

42d-41st Streets, near 7th Avenue, New York City. Herts & Tallant, Architects.

be nothing less than a mark of subserviency that the forms which issued from the imperative conditions under which the early architects worked should be seriously adopted by their imitators as absolute law.

The effectiveness of the complete diversity of the New Amsterdam and New Lyceum Theatres lies in the well-defined fact that the architects have stamped the significance of each playhouse with distinction. The former, gay and whimsical, properly lends itself to the production of large pictorial effects, the latter in its quiet elegance appeals eminently to a more cultured audience and stands as a fitting frame for the conservative works of the most distinguished living dramatists. The New Amsterdam is throughout picturesque, playful, teeming with movement and color; the New



CHAIRS IN THE NEW AMSTERDAM THEATRE.

42d-41st Streets, near 7th Avenue, New York City. Herts & Tallant, Architects.

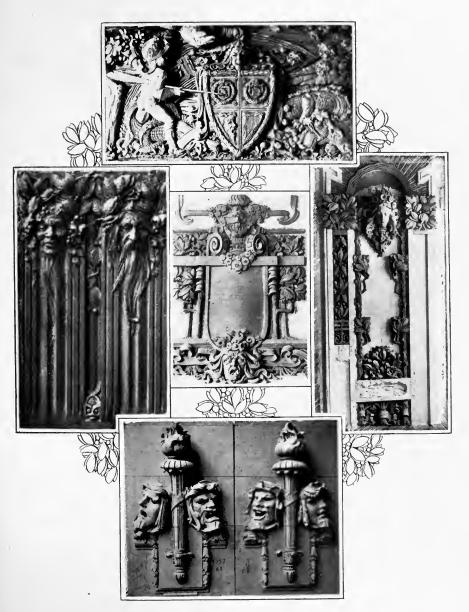


DETAIL IN THE NEW AMSTERDAM THEATRE.

42d-41st Streets, near 7th Avenue, New York City. Herts & Tallant, Architects.

Lyceum Theatre is quietly rich in tone, and, while individual, at the same time displays the strictest regard for the essential groundwork and grammar of architecture.

While the artistic creed of Messrs. Herts & Tallant is largely traced through Jean Francois Millet's words "Le beau c'est le vrai," they do not fall into error of absolute realism, for in their ornamental details they never make an exact or slavish reproduction of nature. It is true that in their present work and particularly in the New Amsterdam they revert for their inspiration directly to floral and animal forms, but at the same time they never insert these forms in their decoration without first subjecting them to a careful and at the same time personal conventionalization. The ladies' boudoir in the New Amsterdam Theatre has for its entire scheme of decoration the tea rose, but the flower is here studied and utilized in a fashion more real and logical than the manner in which flowers were ornamentally employed by our Italian predecessors. Even. a cursory glance at their wood carvings and marble and stucco relief will show a use not merely of the blossom, the fruit, or the leaf, but of the stem, the bud and even the thorn harmoniously embodying a complete scheme of decoration, entirely individual,



DETAIL OF THE NEW AMSTERDAM AND NEW LYCEUM THEATRES.

Herts & Tallant, Architects.

yet eminently satisfactory. In this departure their method finds its closest artistic parallel in the work of William Morris and Walter Crane, for these men always gave a fair and captivating form to a mood of their own time, which struggled for expression and



LANTERN, NEW AMSTERDAM THEATRE.

which the cravings of mere naturalism had not been able to satisfy. The purely artistic result of their work was as important as the historical. The art of the nineteenth century had begun with a decayed idealism which could only keep its ground by leaning upon the old masters, principally the Greeks and the fifteenth century Ital-By opposing this imitative and eclectic art these men blazed a path to a new, independent, and wholly personal view of nature. Rossetti especially stamped that clear perfection of form which belonged to the classicists with the imprint of his own personality, although he never underestimated the teachings of his master. Botticelli.

In this way, Messrs. Herts & Tallant impresss the stamp of their personality upon every department connected with their work.

While a great number of artists, sculptors and general decorators have been employed in the work of the New Amsterdam Theatre, the whole bears the sharp imprint of the architect's personality.



Herts & Tallant, Architects. AUDITORIUM OF THE NEW LYCEUM THEATRE. 45th Street, near Long Acre Square, New York City.



THE FAÇADE OF THE NEW LYCEUM THEATRE.

45th Street, near Long Acre Square, New York City. Herts & Tallant, Architects.



THE NEW LYCEUM BY NIGHT.

45th Street, near Long Acre Square. New York City. Herts & Tallant, Architects.

This is strikingly noticeable in Blum's large decoration over the proscenium arch and in Perry's important panel representing the Drama of the Ancients. Both of these compositions possess the same decorative quality, the same feeling for mystery, the same fertility of intellectual resource. A similar romantic and picturesque element of form and color is remarked even when the artist employed falls short of good execution as in the case of the two large lunettes in the waiting room, where the color scheme and general artistic feeling are admirable, but where the drawing and technical execution are worse than mediocre. Yet these things are not of sufficient moment to mar the general effect which is one



DETAIL OF NEW AMSTERDAM THEATRE.

42d-41st Streets, near 7th Avenue, New York City. Herts & Tallant, Architects.

of almost consistent harmony throughout. The same characteristics are carried down to the design of the furniture, and even the match safes in the smoking room.

A great capacity for taking pains with even the smallest detail is also a characteristic of the work of Herts & Tallant. In the case of the New Amsterdam Theatre in order to attain the desired result the architects were compelled to make most minute and accurate drawings of every detail down to the smallest point and in many cases were obliged themselves to model on the very clay to give the workmen an idea of their requirements and of the end they had in view. The technical incapacity of the wood carvers is painfully evident in the carving of the wooden transoms over the entrance door. On the other hand, the greater part of the plaster relief is admirably executed. I understand that many of the workers in plaster improved sensibly after two months instruction, and that



45th Street, near Long Acre Square, New York City.

Herts & Tallant, Architects.

the lighting fixtures were executed almost without supervision by the same modeler who had general charge of all the plaster ornament. If this is true, it shows how quickly it is possible to obtain good results where intelligent men are given the keynote and then allowed to develop their own ideas. Individualism in architecture ought to be one of the important means toward the end of establishing in our city a great school of artist artisans, stone cutters, wood carvers, and workers in metal and mosaic. When such a class of men, opportunely weeded from the mass of American craftsmen shall be educated, the purely commercial architect will find it difficult to get sufficient workmen to take any interest in the reproduction of the same stupid molding in tens of thousands, or to add here and there without cause or reason the same cartouche. The craftsmen will be above producing work which is fit only for a machine, and this state of affairs lends hope that we may at a time not too far distant find the commercial imitator an outlander in a city where intelligent individualism in the marriage of the allied arts is understood and appreciated.

The illustrations to this article will give a better idea than can any description of the peculiar individuality exhibited by the work of this firm. In the Bates College library we have a balanced, strictly classical design, of the dignified character appropriate to its requirements. The residence of Mr. Rice shows a similar purity of style applied to a private residence. Here the formality of the detail is neutralized by the picturesque treatment of the general masses of both house and terracing, which exhibit balance without absolute symmetry. The iron work in the façade of the Aguilar Library shows the first real attempt of these architects to develop a decorative effect out of modern structural requirements.

The residence at No. 1053 5th avenue is a further logical step toward the complete artistic liberty displayed in the New Amsterdam Theatre.

Specific description of the latter is hardly necessary in view of the numerous illustrations. The absence of the meaningless cornice usually encumbering the tops of our tall buildings is a refreshing feature of the exterior. Similarly the omission of the columns and entablatures which usually encumber the proscenium arches of our theatres lends originality and lightness to the design, and at the same time serves the practical end of affording a better view of the stage from the boxes and the extreme sides of the house. Much of the effect of the interior is unavoidably lost through the failure of the photographs to indicate the beauty of the different materials employed. At the same time the color scheme, while in general excellent, exhibits many defects in the smaller details. The beauty of the entrance is marred by the bilious



BOXES OF NEW LYCEUM THEATRE.

45th Street, near Long Acre Square, New York City. Herts & Tallant, Architects.

color accorded to the bronze work, a defect which could be easily remedied. A similar criticism might be made of the tinsel domes in the curved lobby immediately in the rear of the auditorium, and while the general scheme of the main house is exceedingly pleasant, the lack of development in the color details occasions a certain crudeness of contrast between the different tints. This last, however, is probably the result of too great haste in the completion of the painting; and, indeed, certain spaces are apparently unfinished, as, for instance, the two small triangular spots just above the proscenium arch at either side. Other lapses from grace, such as the awful pinkness of the laidies' waiting room and



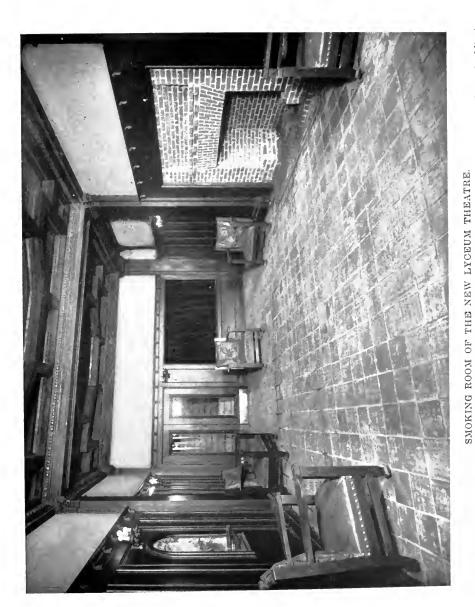
DETAIL OF NEW LYCEUM THEATRE.

45th Street, near Long Acre Square, New York City.

Herts & Tallant, Architects.

the hideous painting in the ceiling of the same room, the more difficult to account for unless the architects were to a certain extent trammelled by exaggerated ideas of conventional requirements.

In the case of the New Lyceum Theatre, the work, I understand, was absolutely left within the jurisdiction of the architects. At all events every part holds together admirably. The continuity of the color scheme is not broken by any discordant notes, and the richness increases continuously from the entrance through the entire house to the group over the proscenium arch, which stands as the culmination of the decorative development. The exterior of the New Lyceum Theatre is dignified and rich, having com-



Herts & Tallant, Architects. 45th Street, near Long Acre Square, New York City.

paratively little color—barely an introductory note in the marble panels over the central windows.

The main foyer possesses a certain richness of material, owing to the use of bronze and marble in the staircases and marble with bronze inlay in the floor. The one strong color note of the painted lunettes, though perhaps a trifle exaggerated, avoids too strong a transition between the simplicity of the foyer and the extreme richness of the auditorium. The main ceiling of the latter is an example of exquisite modelling and rich blending of color calculated



CORAM LIBRARY.

Bates College, Lewiston, Me.

Herts & Tallant, Architects.

to throw just the correct shadow across the graceful upper curve of the proscenium arch, while in the group of the centre of the arch we get the restful impression of a logical combination of sculpture, decorative painting and general richness of material. The curtains and all draperies, I understand, were supervised in their most minute details by the architects and certainly prove helpful adjuncts to the entire decorative scheme, so that the whole gives one an impression of admirable poise and harmony.

The success of these two theatres, judged from the standpoint of general artistic harmony, goes to show the desirability of placing



AGUILAR LIBRARY.

110th Street, near 3d Avenue, New York City. Herts & Tallant, Architects.



IRONWORK, NEW AMSTERDAM THEATRE.
42d-41st Streets, near 7th Avenue, New York City. Herts & Tailant, Architects.



THE RICE HOUSE.

Riverside Drive and 88th Street, New York City.

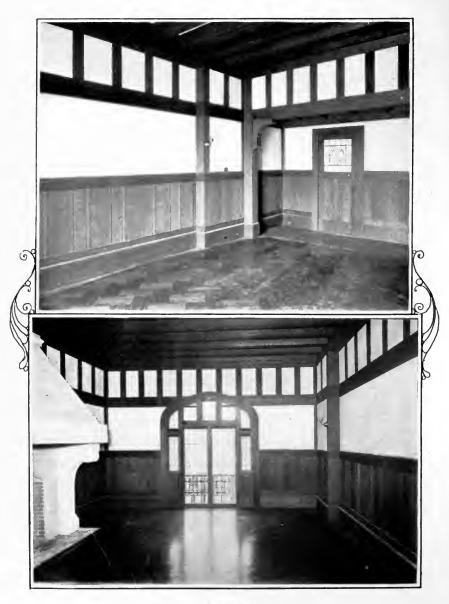
Herts & Tallant, Architects.

Herts & Tallant, Architects.





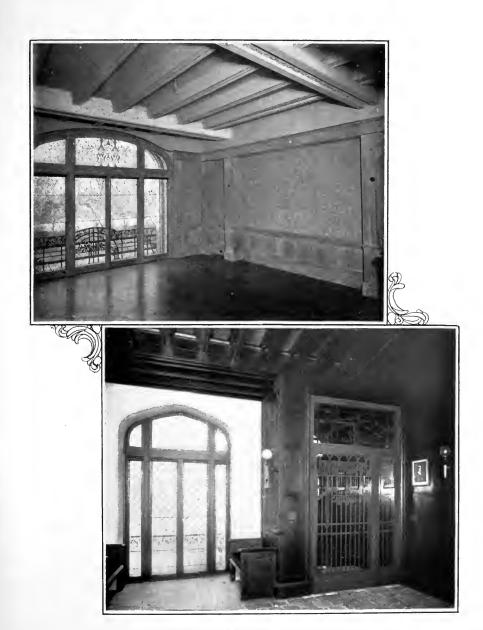
NO. 1053 FIFTH AVENUE-HALLWAY.



INTERIORS, 1053 FIFTH AVENUE.

New York City.

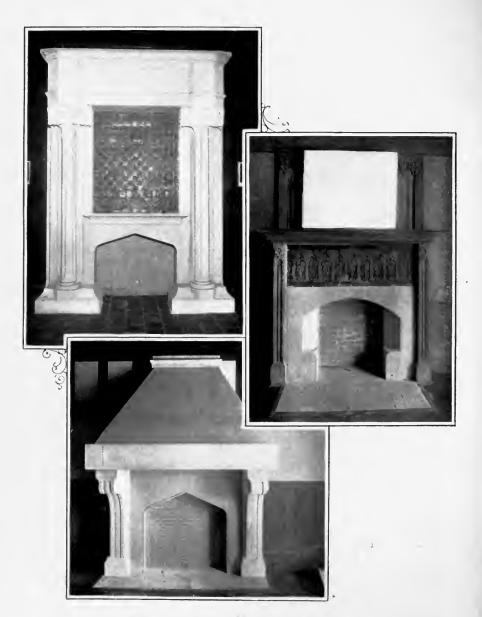
Herts & Tallant, Architects.



INTERIORS, 1053 FIFTH AVENUE.

New York City.

Herts & Taliant, Architects.



MANTELPIECES, 1053 FIFTH AVENUE.

New York City.

Herts & Tallant, Architects.

all decorative work in buildings of this character entirely under the control of the architect. In fact, the view that architecture, painting and sculpture must be allied, that every separate art is in need of the other to attain its full height, has been the inspiration of all the famous periods of art. Messrs. Herts and Tallant have tried in these two theatres to make each of these arts reinforce and contribute to the effect of the others; and they have made this attempt not in a building liberally paid for by the government, but in buildings that were erected under ordinary commercial conditions. Opinions will differ as to the extent of their failure or success, but all must admire the originality, courage and laborious work which they have shown in their ideas and in their completed achievement.

Abbott Halstead Moore.



NO. 1053 FIFTH AVENUE.

Herts & Tallant, Architects.

New York City.



ENTRANCE TO NEW AMSTERDAM THEATRE, NEW YORK CITY Messrs. Herts & Tallant, Architects

ORNAMENTAL IRON AND BRONZE

FOR THE ENTIRE BUILDING EXECUTED BY

THE WINSLOW BROS. COMPANY CHICAGO · NEW YORK

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No. 2.

A NEW INFLUENCE IN THE ARCHITECTURE OF PHILADELPHIA.

RCHITECTURE in Philadelphia is notoriously an affair of extremes. One is rather surprised to find this the case in a city of homes, where, according to the current legend, innovations are born hard. A priori, one would not suppose that the atmosphere of Philadelphia would be favorable to the production of sharp architectual contracts, certainly not to the fantastical, or the bizarre. Rather it is to the West that one would most readily turn for the flamboyant, or, for the profligate, to New York. Yet, if one desires to hunt the truly wild and erratic, or to find the most extraordinary juxtapositions of the good with the bad, it is not to St. Louis or Kansas City or Oshkosh one should go. One cannot be so successful anywhere as in Philadelphia.

Possibly the reason for this is to be found in the fact that in Philadelphia as soon as architecture rises above a certain very humble plane, it is in an extraordinary degree a personal expres-The local tradition—the demure respectable local tradition—runs very smoothly and very well so long as it is confined to the small two or three story red brick domicile with white stone trimmings, which is one of the civic glories of Philadelphia. The local tradition also works well, (only less well, for demureness easily passes into dullness) somewhat higher up the scale when the problem touches upon a more expensive class of residence: nor does it cease to be effective in a limited way in the case of small commercial buildings, factories and warehouses, or out in the suburbs into which the Philadelphian can carry a quiet, homely and colonial mode. Up to this point, there is apparently a sufficiently strong local consensus to operate powerfully upon the Philadelphian expression; but beyond that point-well! Philadelphia plunges, and the student of architecture finds

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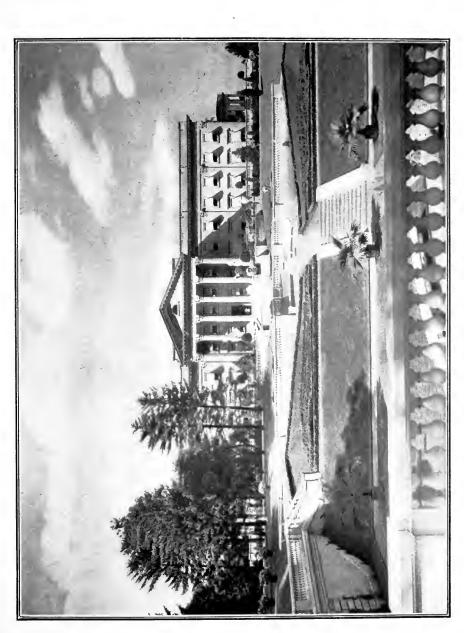
that he has passed into a region of unrestricted design wherein the only limitations imposed upon the architect are those of his own temperament and training. The result is one of the most unmitigated spots, architecturally, in the world, where the note of originality, personality, individuality is as prominent in buildings of good design as it is in buildings of wildly bad design. Architecture there resembles the young lady of the rhyme:



ENTRANCE GATES TO THE ESTATE OF P. A. B. WIDENER.
Elkins Park, Pa. Horace Trumbauer, Architect.

"When it is good, it is very, very good, and when it is bad, it is horrid."

To verify these assertions one has only to recall the long and highly admirable series of strongly individualistic designs turned out in recent years by men like Wilson Eyre, Cope & Stewardson, Frank Miles Day & Brother, and then, with those clearly in mind recur for a moment to the extraordinary freaks which front the business part of Chestnut and other streets reminding one more of the grotesques of operatic scenery than structures soberly erected by respectable and influential financial concerns. In other cities even "the aberration" itself maintains some relationship with the traditional and ordinary methods of design, but in Philadelphia



Horace Trumbauer, Architect. RESIDENCE OF P. A. B. WIDENER-VIEW FROM THE GARDENS.

Elkins Park, Pa.

one is quite at a loss for prototypes and is forced in the end to explain the buildings he sees by some abnormality of the Philadelphian mind operating under some undiscoverable local stimulus. Probably it must always remain a psychological problem how a city that possesses a building like Independence Hall could produce and tolerate a monstrosity like the City Hall, or how the same community could have raised to eminence a designer like Furniss, and trained artists of such high personal distinction as Cope & Stewardson, the Days and Eyre; so that we have on the



RESIDENCE OF P. A. B. WIDENER-EAST VIEW.
Elkins Park, Pa. Horace Trumbauer, Architect.

one hand, buildings like the Record Building and on the other, buildings like the Art Club. An acute architectural observer has endeavored to explain the anomaly. His statement is worth quoting: "In truth it is evident from the look of Philadelphia that there is no constraint upon the architects, either from the professional opinion, which elsewhere keeps designers out of the maddest excesses, or from a lay opinion that betokens an interest in the subject and, though ignorant, is willing to be enlightened. What the aspect of commercial Philadelphia does indicate is a complete architectural apathy on the part of the public and a settled determin-



Horace Trumbauer, Architect. RESIDENCE OF P. A. B. WIDENER-DINING ROOM.

Elkins Park, Pa.

ation on the part of the architects to break in upon the apathy at any cost."

If this explanation of the phenomenon be correct, it may be inferred, safely, that Philadelphia's salvation is to be wrought most speedily by the addition to the professional ranks of a number of well schooled architects, trained in the accepted traditions of the art—men whose education, taste, temperament and energy can be bent to the work of annexing Philadelphia to the general practice of the country at large. In this way, the city on the Schuyl-



RESIDENCE OF P. A. B. WIDENER-PICTURE GALLERY.

Elkins Park, Pa.

Horace Trumbauer, Architect.

kill may in time cease to be an outlandish province where genius and eccentricity equally flourish.

In presenting to our readers as an accompaniment to these remarks, the designs of Mr. Horace Trumbauer, it is hardly necessary to point out that they furnish proof that the very conditions which we have set forth above as necessary for the production in Philadelphia of a better state of things architecturally have, as a matter of fact, arrived. The "arrival," however, is recent.* It

^{*}The new era, moreover, is reinforced by recent enlistments in the professional ranks of a number of well-trained younger architects, who will no doubt achieve prominence later.

would have been utterly impossible a few years ago to have made such an exhibition of sane architectural work deriving from Philadelhpia as Mr. Trumbauer's designs provide. Anyone glancing at our illustrations without any knowledge of the origin of the collection would not be tempted for a moment by any mark or sign to differentiate the work from good metropolitan work proceeding from the office of any of the larger architectural firms located in New York, Boston or Chicago. Thus to miss the stamp of locality in the better architecture of any of our larger cities is not a very



COURT-YARD OF BREEDING STABLES OF P. A. B. WIDENER.
Ogontz, Pa. Horace Trumbauer, Architect.

The building contains nine single and twenty-one box-stalls; also house quarters for the stud groom and twelve bedrooms for assistants. The ring stable within is 100 ft. square, and the building over all 175 x 250 ft.

unusual omission, but in the case of Philadelphia it is, as we have seen, notable. It is all the more remarkable and significant because these designs represent the work of a young practitioner, and, as can be seen, his activity has not been confined to any one class of work or to a few clients with unlimited taste and limited opportunities. It shows, moreover, that in Philadelphia as elsewhere there is a large clientele ready to accept the standard, metropolitan and authoritative thing—people who have no desire "to break in upon apathy at any cost." That Mr. Trumbauer has been

able to secure this public for himself or a large part of it and satisfy that public without "doing the Philadelphian," good or bad, is demonstrated clearly by his undoubted success, which has already overpassed local limits and, as is usually the case with architectural firms that obtain a national position, brings him commissions from other parts of the country. To say that this success is based in some measure, or even in greater measure upon business ability than upon purely artistical merit is to state what is probably true of most architectural firms that are working in a large way, or if we



COACH STABLE—RESIDENCE OF P. A. B. WIDENER. Elkins Park, Pa. Horace Trumbauer, Architect.

may so put it, working on a metropolitan basis. Standardization is almost as necessary here under modern conditions as it is in other departments of production where the output is perforce large and the pressure for time necessarily high. In this environment the artist is inevitably limited, being forbidden all those sources of inspiration, which depend upon reflection and study. Under these circumstances recourse is most likely to be to the formula, to tradition and to the standard. Facility becomes a prime requisite. Common sense and its equivalent in art—good taste—are indispensable. These qualifications with a positive capacity for management, produce the successful architect. Clearly Mr. Trumbauer possesses



Horace Trumbauer, Architect. RESIDENCE OF THE LATE W. L. ELKINS.

Elkins Park, Pa.



THE RESIDENCE OF THE LATE W. L. ELKINS-THE MAIN STAIRWAY. . Horace Trumbauer, Architect. Elkins Park, Pa.



RESIDENCE OF THE LATE W. L. ELKINS—THE GREAT HALL. Elkins Park, Pa. Horace Trumbauer, Architect.



RESIDENCE OF MAURICE HOOVER.

Horace Trumbauer, Architect. This house was built in 1897. It is 60 feet square, constructed of local stone. Wyncofe is a suburb of Philadelphia. Wyncote, Pa.



RESIDENCE OF JAMES W. PAUL, JR.



Radnor, Pa.



RESIDENCE OF JAMES W. PAUL,

Radnor, Pa.

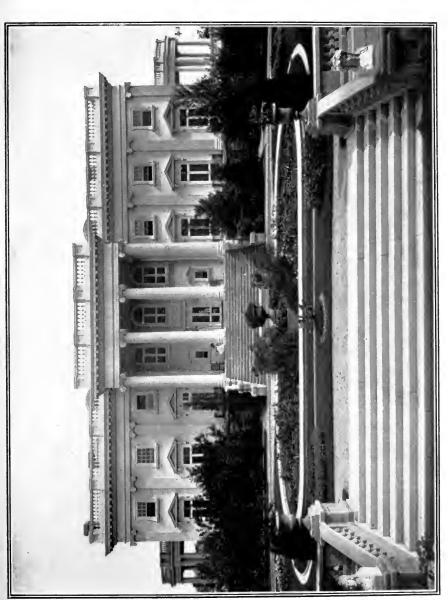
These buildings are 178 x 164 ft. on plan, and contain twelve single and nine box-stalls, as well as Coachman's and Groom'a Quarters, Tool House, Carriage House, Cart Shed, Machinery Room, etc. They are built of Conshohocken stone.



EW OF THE STABLES.

Horace Trumbauer, Architect.





RESIDENCE OF MARTIN MALONEY.

Horace Trumbauer, Architect.

Mr. Martin Maloney's house at Spring Lake, N. J., is a clever adaptation to American seaside conditions of the dignified and effective style known in England as Georgian, inspired by certain elements of Sir Christopher Wren's work. The house is 175 feet long, including the porches, and 90 feet wide. There are two principal stories with a basement and attic. On the ground floor there is a suite extending along the east front, which comprises the Hall Reception Room, Music Room, Dining Room and Library. The principal apartments of these sulfes are 30 Spring Lake, N. J.

On the second floor are ten bedroom suites with dressing rooms and baths, and a private oratory for the use of the many distinguished ecclesiastics of the Roman Church who are frequent guests at "Ballangary." Office, Breakfast Room and Butler's pantry. Halls,

square and 16 feet high. Occupying a similar position on the west part of the house are the Billiard Room, Stair



ST. CATHERINE'S CHAPEL.

Spring Lake, N. J.

Not far away from Mr. Maloney's house is St. Catharine's Chapel which has been donated by Mr. Maloney to the Diocese as a memorial to his youngest daughter.



ST. CATHERINE'S CHAPEL—INTERIOR.

Spring Lake, N. J.

Horace Trumbauer, Architect.



RESIDENCE OF E. C. KNIGHT, JR.

No. 1629 Locust Street, Philadelphia.

Horace Trumbauer, Architect.

This residence is 20×100 ft. on plan, with a stair hall 20 ft, square, two stories high. The dining-room is 18×26 ft. The saloon measures 18×30 ft. The principal suite is situated on the second floor. The first floor contains the servants rooms and a reception room adjoining the entrance. The front is of limestone.

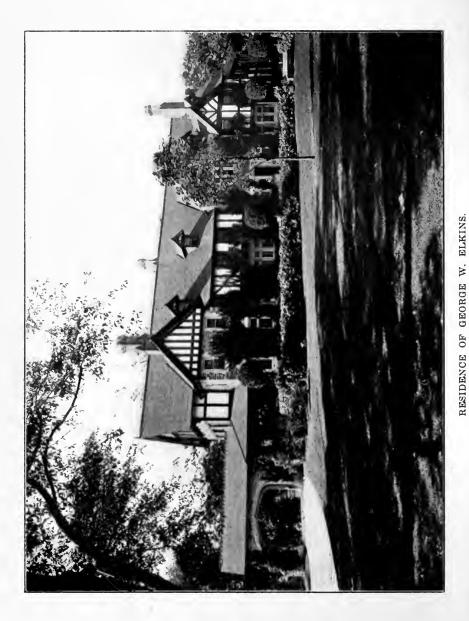


RESIDENCE OF GEORGE A. HUHN.

16th and Walnut Street, Philadelphia, Pa.

Horace Trumbauer, Architect.

This building is 30×95 ft. The principal suite is on the second floor, consisting of drawing-room library, dining-room and stair hall, occupying the entire floor. The house is constructed of limestone.





RESIDENCE OF JOHN GRIBBEL.

Wyncote, Pa.

Horace Trumbauer, Architect.



STABLE ON ESTATE OF GEORGE ELKINS.

Elkins Park, Pa.

Horace Trumbauer, Architect.

This stable is built around two courts 162×110 ft. It contains ten single and two-box-stalls, a carriage house, cart shed, carriage shed, barness and cleaning room, cow stable, machinery and tool houses and living quarters for coachman and groom.



THE WIDENER MEMORIAL TRAINING SCHOOL FOR CRIPPLED CHILDREN. Logan Station, Philadelphia, Pa.

Horace Trumbauer, Architect. side are two small cottages for boys and giris, one each. The Educational and Industrial Buildings are at the This institution is 400 feet square. The main building is 265 feet long by 50 feet wide, and consists of Medical and Surgical Wards, and Classrooms for Manual Training; also elevators for the crippled children. On the north other end of the main building corresponding with the cottages. The object of this Home is to take care of cripness and industrial education so that they may be self-supporting after discharge from the Institution. As soon as a child has learned a trade it is paid wages and charged for board. Such children as are able are employed in the pied children between the ages of seven and sixteen, give them needed medical and surgical treatment and a busifarm and garden and in the poultry raising. No child is retained in the Institution under any circumstances after



Horace Trumbauer, Architect. REAR VIEW OR THE WIDENER MEMORIAL TRAINING SCHOOL FOR CRIPPLED CHILDREN. Logan Station, Philadelphia, Pa.



RESIDENCE OF E. J. BERWIND.

Newport, R. I.

Horace Trumbauer, Architect. Built in 1901 on Bellevue Avenue, Newport, R. I., of limestone. The dimensions are 200 feet by 125 feet on plan. The chief apartments are a Ball Room, 40 feet by 50 feet, a Dining Room, Library. Palm Room. Drawing Room.



RESIDENCE OF E. J. BERWIND—THE TERRACE.

Horace Trumbauer, Architect.

Newport, R. I.



RESIDENCE OF W. W. HARRISON.

Horace Trumbauer, Architect. Built in 1894 at Glenside, a suburb of Pbiladelphia. The house is about 200 feet square on plan, not including terraces. The rooms are large, there being only six family rooms on the first floor and six bedrooms and a Music Room on the second floor. The material used in construction is a grey local limestone. The bouse is finely situated on the creet of a wooded hill and commands a wide whom one the commenced in a countries Glenside, Pa.

these qualifications. If his work lacks the very decided individuality which has hitherto marked the better class of work in Philadelphia, it is at the same time free from all eccentricity. It is never crude. It conforms successfully to the prevalent standards of educated architects. His work exhibits the eclectic facility which is one of the characteristics of the modern American architect. Indeed, perhaps, it is this facile response to the current mode as much at home with the "classic" as with the Elizabethan or the Old Colonial that is responsible for the absence of any very strong personal qualities. The note of any leaning or predilection is almost wholly absent from the mass of the work we present. It is extremely difficult in it to catch the designer, so to speak, "at" any of his preferences. That this impersonality, accompanied by the good qualities of sobriety, accuracy and good taste, should have come out of Philadelphia, is not only a matter for astonishment, but for congratulation.



RESIDENCE OF W. STORRS WELLS.

Newport, R. I. Horace Trumbauer, Architect.

This house is 120 ft. square on plan, with a hall 32 x 72 ft., a morning room, library, dining-room, etc. It was built of Indiana Emestone, in 1900.



 ${\rm FIG.~10.~WAREHOUSE~OF~I.~T.~WILLIAMS~\&~SONS.}$ $25{\rm th~Street~and~11th~Avenue,~New~York~City.}$

THE WAREHOUSE AND FACTORY IN ARCHITECTURE.—II.

N the first part of this article (See the Architectural Record for January, 1903) allusion was made to the evident influence of such great achievements as the De Vinne building and the Hanan building on the design of much less costly and more commonplace warehouses, at least in the city of New York. Such simpler buildings are scattered along the West Side, near the river and above West 26th street, and there are others on the sea-front of Brooklyn and some in different parts of the town, situated here and there. Of the group on the West Side, the most successful is undoubtedly that shown in Fig 10. Of this building, the front with the flat gable, seen on the extreme right of the picture, is evidently a later addition. It is far more in the spirit of those admirable buildings which are shown in our first article, Figs. 1, 2 and 5, and has what they have not, a surprisingly ingenious and attractive management of the gable. It is the best assertion known of the presence behind the walls of a roof of very low double pitch; and is as genuine an architectural effort as the pediment of the Greek temple. Then, too, this front is consistent in a way to gratify the most close-reasoning architectural student; for there is no alternation here of squarehead and round-head windows, but a series of segmental arches varied only by the obviously needed great semi-circles of the ground story, and the excusably modified openings of the tier below the gable itself. The deep reveals, too, though not comparable to those of the Lafayette Place building or the other at Centre and White streets, are still sufficiently marked to emphasize the character of the whole front.

As to the older part, the building on the corner, one could wish away the suggested rustication of the two lower stories, not understanding why a good wall of dark red brick should be broken up in that way. Rustication is but a poor device even in stone work, a wretched way of making a flat, dull wall interesting. But in brickwork it seems not to have that excuse which we willingly make for a man who is chiseling the edges of his great blocks of ashlar. The recessed lines are, however, used as part of the color pattern and they are repeated in the recessed and radiating bands of the great archivolts, and again echoed in larger masses by the horizontal lintels, sills and string courses of light stone. It is not a very daring way of giving polychromatic interest to the front, but these attempts should be made as often as occasion serves, until a more brilliant thought occurs to someone and a method of design in red and buff be discovered.

The best thing about the building, after all, its salvation as a design, is in the treatment of the corners with massive and unbroken piers, so broad that the window-pierced wall between does not look too much like a lantern. It is a thing which modern designers are too shy of, this strengthening of their corners, and costly uptown clubhouses suffer from the unnecessary weakening of a wall near the angle. It does not in any way break in upon this system that the farther corner pier, on the right, is pierced with small windows. The necessity of those windows is so obvious.

there, in that part of the building which is farthest from the abundant light of the avenue front; and they are so simply treated, that this pier is felt to be at one with those at the other end of the structure. Moreover, the middle pier, wider than the others, helps greatly in this general effect of massiveness.

Fig. 11, the front, No. 549 west 26th street, depends much more for its effectiveness upon its color combinations. The voussoirs are alternatingly of dark red brick and grav limestone, and the broad band is of the paler material. openings are fairly combined; but the great groups of windows suffer terribly from having an insufficient reveal — for how should such a window recess, 14 ft.



FIG. 11. NO. 549 W. 26TH STREET. New York City. C. H. Caldwell, Architect.

wide or more, pass with only 4 inches break above, and only 8 inches below, where they are the deepest. This thinness of the ostensible wall tends also to destroy the good effect produced by the large, wide end piers. They are pierced with small windows; and this by itself might pass, for we found it to be of no hurt whatever in the warehouse building Fig. 10; but the fact that these windows have 8-inch jambs only, which width again is invaded by the wooden moldings of the frame, deprives the piers of their appearance of solidity.

There is on West 27th street another front almost exactly like this one, and it is clear that the factory and warehouse complete is carried through the block 200 ft. long. The reserved space seen on the right of the building in Fig. 11, is closed at this end with what seems a very cleverly designed gateway wall; but this wall appears to front a low structure, a sort of lean-to attached to the larger warehouse.

Fig. 12, No. 547 West 27th street, is interesting when studied in comparison with the building shown in Fig. 11. In fact, one of the



FIG. 12. NO. 549 W. 27TH STREET. New York City.

most attractive things about this examination which we are conducting is the necessary comparison to be drawn between buildings so like in character and in the general principle of their design, while they are yet varied so much in distribution in the larger details. That is the way in which a style of architecture has always developed itself—not in bold attempts to break away from all preceding practice, but in slow modification, each man trying to do a little better than his predecessor. No doubt the appearance, now and then, of an innovating genius is necessary to healthy progress, and so it will be found to have been in this matter of the round arched, red brick warehouse, for some

one of these interesting buildings must have been a very bold enterprise on the part of the architect who devised it. But the modifications seen here as Figs. 10, 11, 12 and those to follow, and compared together illustrate the growth of the new style we are considering as well as does the study of twelfth century proto-Gothic churches help toward a comprehension of Chartres Cathedral.

Fig. 13 is a less attractive building because of the broad surfaces of yellow brick which surround and enclose the groups of windows. When will designers in what is meant for polychromy realize that

they must not use their two colors (when there are only two) in masses so nearly alike in size? The *chainages* treated pilasterwise and dividing the building into three great panels are excellent; in them the due relations of lighter color with darker surroundings are preserved. The larger and the smaller quoins, all having a certain decided projection from the wall, leading up, as a vertical member, to the corbelled overhang above the fourth tier of arched windows, form a capital motive and are almost enough to make a design of the building in spite of other less fortunate features.

Evidently the two uppermost stories are an addition, and a badly conceived one, not to be considered as part of the design.

Fig. 4, a building on Seventh avenue at the corner of West Sixteenth street, eschews color and brings us back to a gravity of design not to be surpassed by anything that we have consulted in this study. The two show-windows, of course, mar the effect, and this is what the artist lost when he placed his building in a quarter not quite so inaccessible to the



FIG. 13. NO. 500 WEST 30TH STREET.
New York City. Romeyn & Stever, Architects.

shopping world as the buildings we have been considering in this number—Figs. 10-13. It is odd how such a blot will hurt a whole building, even one as grave and dignified as the present one. Let the reader cover those two show-windows with a bit of dark paper and see how the building gains in charm immediately. There is not, however, much novelty of design in the building, as it is. Probably the old abandonment, in what may be called the attic, of the system of eight openings on one front and sixteen on the other divided into two uneven masses, and the substitution for that of a



FIG. 14. FACTORY AT S. E. COR. OF 16TH ST. AND 7TH AVE. Clinton & Russell, Architects. New York City.

continuous belt of smaller arches is the best thing about the design, grave and restrained as it is in all its parts.

And now we come to some buildings of the plainest sort, buildings as completely devoid of architectural treatment in the common sense as we found last month the Terminal Warehouse on the North River. The great factory building shown in Fig. 15 is in Long Island City on the Brooklyn side of the East River; and in the immediate neighborhood of this are other towering masses of brickwork of very similar design. One cannot but care for these, because every great surface of hard, rough, well-burned bricks of dusky red color is attractive; and there is nowhere in the world more perfect and beautiful material in this way than we use in and about New York city. It has always been excellent, this New York brickwork—its conditions being admitted. The old-fashioned 12-inch party wall was a good brickwall or it would not have carried the floors and roofs of two adjoining 20 ft. houses. When the wall was to be 24 in: thick it was always better built, even in proportion, than when the wall was thinner; nor did the New York bricklaver ever consent readily to the dreadful tricks of country masons in leaving great hollow places in the heart of the rising mass of masonry. The present writer has known well-esteemed contractors in the smaller towns anywhere within the five hundred miles radius who defended the practice of leaving those dreadful gaps in their structure from no matter what fantastic reason; but he never has known a New York builder, boss or foreman, to suggest anything of the kind. Always, if the smooth pressed brick could be got rid of when a facade was in consideration, that same common brick was as effective in appearance as it was solid in reality. Those who cared for rational design thirty years ago used to fight with their employers for the privilege of building the front wall of the same materials as the back; thus in a corner house one would beg for permission to use throughout for the flank and the front as well, the common hard brick, that thought good enough for a wall facing the back vard, and thus to bring the three visible wall surfaces into harmony with one another and everywhere more effective than any one of them would have been if faced up with Philadelphia pressed brick.

So it is that the huge mass seen in Fig. 15 with its buttress-piers dividing the external surface of its walls and suggesting extreme stiffness of construction, and with plain round arched window-openings, level brick cornices marked by a very slight corbelling out in a somewhat ornamental pattern, is extremely effective even in the absence of deep reveals to the windows. The walls must be thick—one is sure that they are thick; and the thought occurs at once that the deep jambs have been given to the interior because





Long Island City.

that additional floor-space was useful, and the panel below the window-sill could also be utilized in each of the working lofts.

With Fig. 16 we reach a factory building in which a wholly different programme has been carried out. This is in Chicago at the corner of East Harrison street and South Franklin street. It is as obviously a brick building as any of the dignified factories that we have been treating in these two articles, but here the spirit of Graeco-Roman art has been strong with the artist, and we have



FIG. 16. CLOW BUILDING.

Chicago, Ill.

Holabird & Roche, Architects.

a building of as purely classical type as the circumstances could have been made to allow. There are tombs still standing, in ruin, here and there in the Campagna, in which the same effect is produced, the effect of pilasters and entablatures carried out in brickwork; but in those Roman instances there can be no doubt that the whole was to have been covered with that splendid hard and smooth stucco of which the Roman builders had the secret. So that they must have been intended to look as much like monoliths as an Italo-Greek temple must have appeared when it was coated with its

thin film of plastering and elaborately painted in bright colors. Here, however, the brickwork, square and simple or molded into delicate forms, had to be left to tell its own story. The necessity of making the overhanging cornice of something else than brick is, of course, a weakness of this sort of design. The attic wall seen above the cornice is, again, good solid brickwork with a molded cap or surbase and very properly and skillfully adapted to the purposes of a solid parapet, but the overhanging cornice which the style calls for, and which must perforce project so many feet and inches, is a thing which brick building does not allow of. A bold



FIG. 17. THE BUTLER BROS.' WAREHOUSES.

Chicago, Ill.

Jarvis Hunt, Architect.

composition in terra-cotta indeed—but that does not seem to have been admitted or admissable in this case.

With Fig. 17 we are still in Chicago and the twin warehouses of Butler Brothers are made exactly alike in their external treatment, in order that their close connection may be perfectly understood. This, and the placing of the signs at the corners most nearly approaching one another, point to just such an attempt to claim kinship between two great buildings, each of which may be supposed to help its neighbor, as we note in that custom so familiar to students of Venice of springing an arch with a richly sculptured gable or wall-piece above it, across the narrow calle

which divides two case held by the same family. It is to be noted that here the buildings can be seen from a very considerable distance, namely, across the Chicago river, and from several different points of view; and therefore the use of elaborate patterns of brickwork near the top of the building is in every way justifiable. It is interesting to note that the small squared window-openings suggestion, as in the case of the Garvin Building, illustrated in the January number of this magazine, the idea of great lofts used only for storage, has allowed of great irregularity of arrangement. The windows being once for all set in firm horizontal bands, which bands are emphasized by moulded courses at sill and lintel, it has been thought that their spacing along these horizontal lines was comparatively indifferent—and so it is. One could wish for even a freer use of that obvious plan of securing light where it is wanted. The windows looking on the narrow street dividing the two warehouses are much larger, and are filled with sash of the usual kind, as befits that part of such a building which is in close connection with the business office. But, when it was decided to break the undue height of the building by very strongly marked horizontal bands, it was also an obvious resolve to put these bands near the top, where their effect would be in the not doubtful appeal to persons viewing the whole group of buildings from a distance of six hundred or a thousand feet. It is just within the limits of proper criticism to ask whether it would not have been better to have started the very effective areade of arches on corbelled-out piers which form the cornice proper from a more solid looking wall than that produced by the two stories which are wrought into a diaper pattern of lozenges with a rosette in the middle of each. It does not do much harm to a wall so evidently massive as this; and yet one wishes the pattern other than that it is—one wishes it a mosaic of horizontals and verticals rather than of interlacing diagonals, which look as if they might slip, each joint rotating on its rivet.

For this reason we find the charm of the warehouse of Kelley, Maus & Company greater than that of the twin buildings just named, and in fact, it is not disagreeable to close this inquiry, for the present, with this most interesting structure. Brick of three colors used with singular judgement has been so employed in a bold mosaic that the small windows, which were all that the warehouse needs, help to make up the mosaic itself; their shadows and their darker surfaces opening into the interior telling as at least two additional terms in the proportion of varying colors. In fact, if one were to ask permission to change this design in any part it would be only to be allowed to block up the furthermost vertical row of windows on the left in Fig. 18 and enlarge by two feet the solid pier at the right hand of the same front. The need of a

massive corner pier is one that has not been thought of at the right time; though indeed when one looks at the building as it is seen in Fig. 17, this pier seems massive enough for anything, as it is at least two feet wide on one side of the angle, if but narrow on the other side.

With this we must close the present inquiry; but there is much to be said about the designs in simple brickwork which are not strictly warehouses nor yet factories, and to these we may be able to give attention at another time. There is something to be



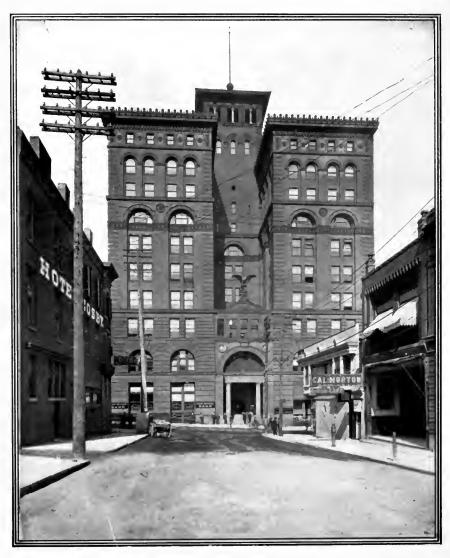
FIG. 18. THE KELLEY MAUS BUILDING.

Chicago, Ill.

Jarvis Hunt, Architect.

said for the theory broached now and then by the persons not enamored of our present architecture of mere pretence, that the designers should be restrained to square masses and sharp corners and plain windows for twenty years to come—with sculpture denied them and all the bad architectural forms tabu. Then, it is thought by some, a chance for design rightly so-called, might be found in a the very inability to misuse the old forms. At all events, there is great delight in watching the attempts of those who willingly take up that course of thought and push it in a sensible way and with energy.

Russell Sturgis.



THE NEW YORK LIFE BUILDING.

McKim, Mead & White, Architects.

Kansas City, Mo.



RESIDENCE OF A. R. MEYER.

Kansas City, Mo.

Van Brunt & Howe, Architects.

THE DEVELOPMENT OF ARCHITECTURE IN KANSAS CITY, MISSOURI.

T is said that the moral, social and commercial growth of a people may be traced from a study of its architectural monuments. If this is true, then the progress of events, which in scarcely more than fifty years has raised the community of Kansas City, Missouri, from an insignificant landing-place on the Missouri river to a city of the first class, will be found to have left an indelible imprint on its buildings, both public and private.

In older communities, which have had the good fortune to inherit through a long succession of years the traditions of their forbears, the transitions are less violent and less marked. In the cities along the Atlantic seaboard the story is told which had its beginning a couple of hundred years ago and whose end is not yet, and the architectural development in these cases is often marked by epochs some of which will number as many years of duration as Kansas City can number years of existence. What the latter has done has all been worked out within the lifetime of men who are yet comparatively young, and there are many living within its limits to-day who can easily look back to the time when the site of every business building now standing within the commercial heart of the city was but prairie, swamp or woodland.

The famous and historic Santa Fé trail passed from the old levee at the riverside up the bluff and southward through a ravine now filled with tall brick and stone buildings, and daily crowded with the busy people of a great commercial center. The old prairie schooner has given place to the cable and electric car, and the water course of the old trail is buried by the grader's cart thirty feet below the level on which these cars run and on which these buildings stand.

In the early days, when there was no Kansas City, and when Westport Landing was all that indicated a difference between this and any other point on the Missouri River, the architecture of the settlement was naturally of a primitive type, and buildings were constructed, barring a few exceptions, with the one idea of strict utility. Perhaps the more important exceptions were the homesteads of the earlier and most prosperous of the inland settlers, who placed their



RESIDENCE OF E. W. SMITH.

Kansas City, Mo.

Van Brunt & Sons, Architects.

homes further back from the river and who built after the fashion of the Southern planter. These houses were low, rambling buildings, one or two stories high, with wide verandas, and were flanked by straggling out-buildings; none were beautiful save in that they suggested the idea of home and comfort. These landmarks are rapidly disappearing, driven out by the march of commercial progress and giving way to the "addition" of the real estate operator and to the growth of the smart suburban village.

It is not generally to holders of these properties that Kansas City owes its architectural development, although in some cases these men kept fully apace with the march of the city's progress, and indeed were largely instrumental in directing its course. The constantly increasing volume of the business of Kansas City as the



BOARD OF TRADE BUILDING.

Kansas City, Mo.

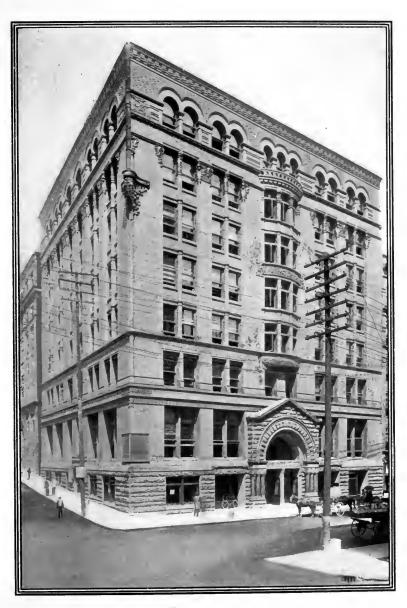
Burnham & Root, Architects.

Southwest became more settled, and as the commerce of Mexico and the remote Western States and Territories became more active and assured, brought many energetic and enterprising men to this gateway of the Southwest. That which was but a mere steamboat landing became in an incredibly short time a bustling but raw-edged city.

The prosperity which came to the citizens reached its architectural expression in a style, if so it may be called, which finds its prototype even in the earlier and Eastern cities, and which has been called the "American Vernacular." This architecture was almost absolutely free from the limitations of academic tradition, and was mainly the work of the enterprising carpenter, who had not hesitated to add the word "architect" to his shop sign. Vainglorious and pretentious, often very elaborate and costly both in its interior and exterior, styles and "motifs" were mingled in a manner to drive to despair the purist or scholar. Wooden towers of grotesque type, broad overhanging cornices with brackets of the most elaborate of jigsawed patterns, window-heads, balustrades, porches, balconies, everthing was there that the ingenuity of the carpenter-architect could devise or the most exacting client demand. Examples of the work of this period are scattered through the older portions of the city, and are repeated in every neighboring city along the river. What is written of Kansas City is equally true of St. Joseph, Mo., and of Atchison, Leavenworth and Lawrence, Kansas.

The early topographical conditions of Kansas City, with its ragged bluffs, deep ravines and high ridges, offered about as unpromising a site for a large city as could be imagined. But the enterprise and perseverance of the people have largely surmounted all such difficulties. The process of leveling the hills and filling the ravines has often led to most romantic results, and at one time it was no unusual thing to see a building of the old school perched on top of an embankment 25 or 30 feet above the street level and apparently as inaccessible as though on top of the Rocky Mountains.

Up to about the year 1860 Kansas City was strictly a steamboat town, and it was not until about that time that the first railroad made its entry, bringing with it the conditions for a speedy and radical change in all departments of the city's progress; changes as imporant in its architecture as in its commerce, though perhaps less rapid in the former. It was not, however, until the city had secured an advanced position as a railroad center, and had been well advertised as such, that the architect "in propria persona" made his first appearance. It was at about this time that the people realized that something better could be done than had been so far accomplished, and soon some excellent work was completed. The First Congregational Church is an example—one of the first really good buildings which up to that time had been built. The building was very



AMERICAN BANK BUILDING.

Kansas City, Mo.

Burnham & Root, Architects.

carefully studied by its architect, Mr. Adriance Van Brunt, and is to-day one of the best church buildings in Kansas City.

The great commercial prosperity which was found in the Southwest for the ten years prior to 1885 culminated in Kansas City, as it did in most other cities of the West, in a building "boom," which began about that time and lasted four years or more. During this period much of the best architectural work was done in this city and its vicinity. New men had come into the field, many of them better trained and better equipped than most of those in practice there;



COATES HOUSE.

Kansas City, Mo.

Van Brunt & Howe, Architects.

money was plentiful, and Eastern capital already seeking permanent investment in the bricks and mortar of Kansas City.

Kansas City needed nearly everything which marks the architecture of a modern city. There was no first-class hotel or office building, no large mercantile houses, only one or two good churches, and not one first-class retail store building. Now her people feel that they are at least as well equipped in all of these particulars as any city of its size in the country.

In 1886 the Board of Trade determined to erect a new building for its own use and for rental purposes. A limited competition of



NEW ENGLAND LIFE BUILDING.

Kansas City, Mo.

Winslow & Wetherell, Architects/

architects was organized, all, with one exception, from outside the limits of Kansas City, and the choice of plans fell to that of Messrs. Burnham and Root, of Chicago. From the plans and under the superintendence of these gentlemen the present building of the Board of Trade was built. This was the first fire-proofed building erected in Kansas City, and its progress was watched with great interest by many to whom "fire-proof construction" was but a name. At the time of the conception of this building the Romanesque wave, whose impulse had been given so vigorously by Mr. Richardson, was at its height, and Messrs. Burnham and Root designed their building in that style, adapting it to the exactions of sometimes unsympathetic requirements and to the possibilities of steel and iron. The building is of red brick and red terra cotta, and contains the hall and offices of the Board of Trade, the rooms of the Commercial Club, and much other rental space.

The crection of this first large building by a Chicago firm appears to have called the attention of capitalists of that city to the possibilities of Kansas City, and two companies were organized, one to build the American Bank Building, the other to erect and equip the Midland Hotel. Both of these works were placed by their projectors in the hands of the same firm of architects as were engaged on the Board of Trade, and both were of fire-proofed construction. They are built in local and pressed brick with terra cotta and brownstone trimmings. It was a rather curious coincidence that the first three of the large important and fire-proof buildings should have fallen all at once into the hands of one firm.

While Chicago capital was engaged in these enterprises, other money centers were active. The New England Life Insurance Co. decided to build a fire-proofed office building, and erected it on the northeast corner of Ninth and Wyandotte streets. It is seven stories high, and besides the offices of the company it contains the rooms of the New England National Bank, the New England Safety Deposit and Trust Co. and much other rental space. Loyal to its New England associations, the company built from Massachusetts stone, using throughout the Longmeadow stone. The architects were Messrs. Winslow and Wetherell, of Boston, who chose a free treatment of Italian Renaissance for the style in which to work. New York Life Insurance Company also determined to build, and after a competition of Eastern and Western architects gave the work to Messrs. McKim, Mead and White, of New York, who erected at the head of Baltimore avenue on Ninth street the present building. It is ten full stories high, the highest office building in Kansas City, built in fire-proof material throughout, with an exterior of local pressed brick, granite and sandstone. It contains 375 rooms besides the great banking rooms on the main floor, cost in the vicinity of



BRYANT BUILDING.

Kansas City, Mo.

Van Brunt & Howe, Architects.

\$2,000,000, and is the largest and best equipped office building in Kansas City.

The Gibraltar Building, the Bayard Building and the Bryant Building, of which Messrs. Van Brunt and Howe, of Kansas City, were the architects, are good examples of the best office buildings not strictly fire-proofed. The first two were built with Longmeadow stone fronts, and the Gibraltar is in slow-burning construction. The Postal Telegraph Building, Messrs. Root and Siemens, architects. of Kansas City, is a good example of office building dealing principally with a north light where a large amount of glass is



THE HOWE RESIDENCE.

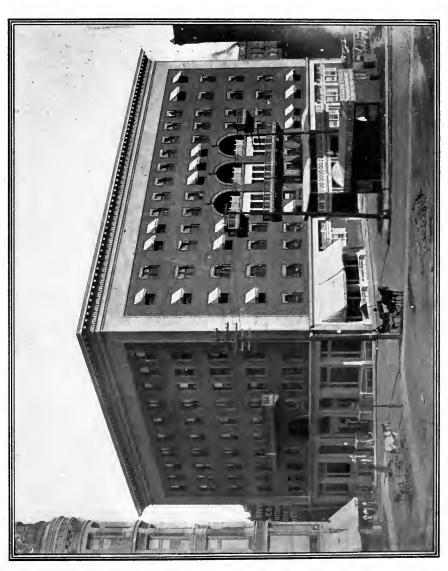
Kansas City, Mo.

Van Brunt & Howe, Architects.

essential. The Massachusetts Building, by the same architects as were employed on the New England Life Insurance Building, is an excellent building in slow-burning construction. It is owned in Boston and is built in local bricks and Longmeadow stone.

The Bryant Building was completed this spring; it is said to be one of the best lighted and ventilated office buildings in Kansas City.

The extensive additions to the old Federal Building, which was purchased by the Fidelity Trust Company, of Kansas City, for its own use, gives to Kansas City another absolutely fire-proofed



thoroughly equipped office building, of most substantial character. Its principal interest centers in the great banking room, which is one hundred and ten feet long, fifty feet wide, and twenty-six feet high, finished in marble, bronze, and mahogany. The architects are Messrs. Van Brunt & Howe.

The new steel and masonry office building on Baltimore avenue, known as the Dwight Building, by C. A. Smith, architect, is a seven-story fire-proofed building, built more nearly from the modern methods of steel construction than any building in the city.

Among the mercantile buildings one of the largest and most important is the great retail house of the Emery, Bird, Thayer Dry

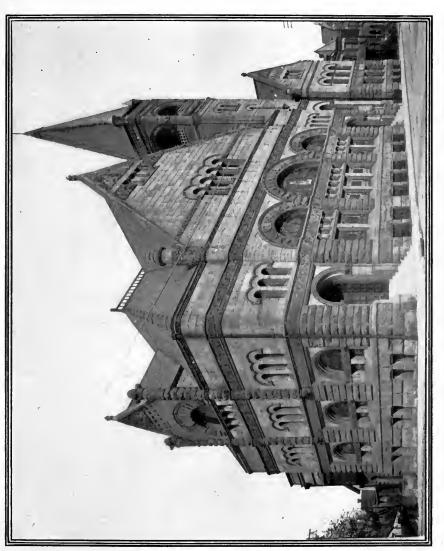


HOUSE OF R. L. TAYLOR.

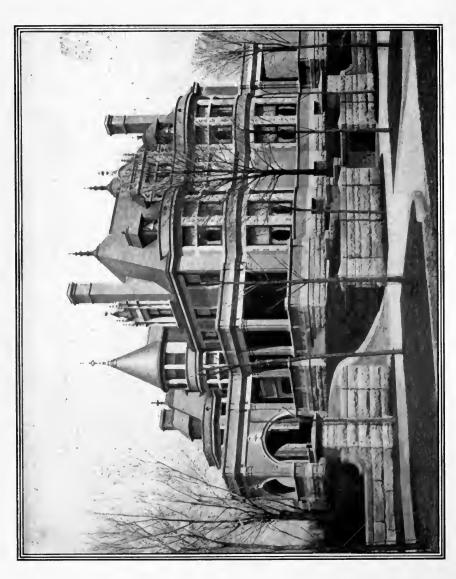
Kansas City, Mo.

Root & Siemens, Architects.

Goods Co., Van Brunt & Howe, architects. It has a full frontage on three streets, and runs back to an alley in the rear, making it an isolated building, 125 by 250 feet, six stories high, and is built in local bricks and Lake Superior red sandstone. While not a fire-proofed building, it is protected by all the devices known in "fire-proofed" work. It was one of the first buildings in Kansas City built, so far as its lower stories are concerned, in pier construction, with its actual and theoretical loads carefully adjusted to the soil on which they rest. This soil is generally a fine, hard, yellow clay, very tough and dense and capable of great resistance, but most of the earlier building foundations were laid without much calculation as to loads, the idea being that stonework was cheap and it was only necessary to be sure to get enough of it. A novel feature



CALVARY BAPTIST CHURCH.



of this building is its open arcade on the three streets, with the show windows set back some six or eight feet from the building line, making a covered promenade where in bad weather passers may examine the displays while well sheltered. So far as I know this is the only large example of its kind in this country, and while there is apparently a waste of room the owners consider the advertisement an ample compensation.

Kansas City has some very excellent examples of wholesale and jobbing houses, among the best of which, perhaps, may be men-



RESIDENCE OF COL. WILLIAM R. NELSON.

Architects, F. E. Hill, and Gunn & Curtis.

Kansas City, Mo.

tioned the building of Swofford Bros. and that of Burnham, Hanna, Munger Dry Goods Company; the former, by Shepard & Farrar; the latter by the late Mr. George Matthews.

The great wagon and carriage house and wareroom of the Stude-baker Brothers, by Messrs. Root & Siemens, is one of the largest and most complete buildings of its kind in the western country.

The "New Baltimore" is a fire-proofed hotel of 225 rooms just completed from the plans of Louis Curtis, of Kansas City. Its floors and partitions are built in expanded metal construction.



The exterior is of red pressed brick with gray brick corners and cornices, and terra cotta trimmings.

• The new Coates House is an hotel of 350 rooms, finished a few years ago, Van Brunt & Howe, architects. It was built in sections on the site of the old hotel of the same name, which was one of the landmarks of Kansas City for many years. The south wing was built as an addition to the old building, which was afterwards torn down and replaced by a new fire-proofed structure. This hotel is consid-



RESIDENCE OF A. R. MEYER.

Kansas City, Mo.

Van Brunt & Howe, Architects.

ered one of the most popular and attractive in the West, and has some unusual features in its interior planning.

Kansas City is not rich in ecclesiastical architecture. The First Congregational Church, already mentioned, the Calvary Baptist Church, the First Christian Science Church, the Second Presbyterian Church (A. Van Brunt, architect), and perhaps one of two others would complete the list of those worthy of special mention. The Calvary Baptist Church is a Romanesque building of somewhat florid type, in gray stone, and was designed, after a competition of architects, by Messrs. Edbrooke and Burnham, of Chicago. The

Scientist Church, in the English style, is an interesting but modest

building by Mr. Matthews. It is a most excellent interior. The Cathedral is remarkable as one of the buildings which one would not like to have done, and it is the product of the period to which in the early pages reference was made façade and tower of this article; a absolutely without architectural precedent in form or detail, and an interior, with its great columns of wood and plaster supporting nothing but the plaster ceiling, giving the lie direct to all the exterior. At the present moment there are several new and under construction

FIRST CHRISTIAN SCIENCE CHURCH.

Kansas City, Mo.

Geo. Mathews, Architect.

and costly churches; among these, the Second Christian Science Church, Frederick R. Comstock, of New York, architect, and the Prospect Avenue Christian Church, Van Brunt & Howe, architects. Both of these buildings are of stone, and both designed in purely academic style.

Of its domestic architecture Kansas City may well be proud, and few cities of even larger growth, wealth and population can make a better showing. The people love and appreciate their homes, and make much of their home life. Small, attractive dwellings in good architectural style are numerous, many of them beautiful without and within. Among the later homes of a more important and striking character, which perhaps illustrate best the architectural growth in these lines, may be mentioned the homes of Mrs. A. H. Armour, Mr. Kirkland B. Armour, Mr. E. W. Smith and Mr.



FIRST CHRISTIAN SCIENCE CHURCH-INTERIOR.

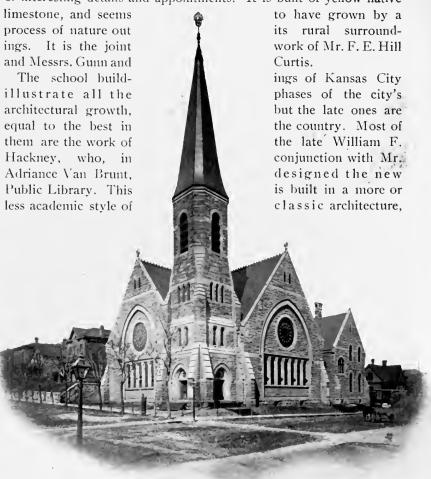
Kansas City, Mo.

Geo. Mathews, Architect.

August R. Meyer, all in the suburb known as Hyde Park, and all by Messrs. Van Brunt & Howe; the John Perry home, by Mr. F. E. Hill, architect, of Kansas City; the George Jones and L. B. Price homes, both by Messrs. Shepard and Farrar, architects, of Kansas City; the homes of Mr. Langston Bacon and Mr. Robert Taylor, by Messrs. Root and Siemens. The house of Mrs. Armour is a careful study in Italian, while that of her son, Mr. K. B. Armour, is in the late French Gothic. In both cases as much study was bestowed on the interior as on the exterior, that they might be grammatical and consistent. The Smith house is reminiscent of Cambridge, Salem or

Portsmouth, and its details have been carefully modeled from the examples of these old New England towns.

Oak Hall, the home of Col. W. R. Nelson, is a building or group of buildings of no particular style, but full; both within and without, of interesting details and appointments. It is built of yellow native



FIRST CONGREGATIONAL CHURCH.

Kansas City, Mo.

Adriance Van Brunt, Architect.

and is equipped with fire-proof book-stacks and all the requirements of a modern library. Its material is a Missouri white lime-stone and Texas granite.

The public buildings of Kansas City offer the usual examples of good and bad architecture to be found in every new community of such a scale as this. The City Hall and Court House are expensive buildings, but not well planned for the purposes for which they were built. The County Jail, near the Court House, is a pleasing exception. It was designed by Mr. Adriance Van Brunt, and is one of the best works from this gentleman's hand. Of the new Government building only a word need be said. It is of the kind of building which for many years the architects of the country have been combating, and it is unfortunate that this new building could not have



SECOND PRESBYTERIAN CHURCH.

Kansas City, Mo.

Adriance Van Brunt, Architect.

been built under the recent laws created for the improvement of Government architecture.

One of the public buildings of which Kansas City is justly proud is the Convention Hall. The present building occupies the site of the former building of the same general dimensions, which was destroyed by fire on April 4, 1900. The Democratic National Convention was to meet in this building on July 4 of the same year, and this now seemed almost an impossibility. Before the flames were extinguished on the old building, however, a new one had been pledged, contracts made, and in less than ninety days from the date of the fire the new Convention Hall stood on the site of the old one;

a fire-proofed building, 198x314 feet, with a seating capacity of more than 20,000 persons, under a steel roof which spanned the whole without a column, and at a cost of \$350,000.

The Democratic Convention was opened on the Fourth of July, 1900, in a building belonging to the same class as the Madison Square Garden in New York, and which lacked very little of completion. Its exterior is cut stone and brick; its interior fireproofed throughout, and its floor area larger than that of Madison Square Garden. The architect of the original building was F. E.



THE OLD CONVENTION HALL.

Kansas City, Mo.

F. E. Hill, Architect.

Hill, who made the plans for the second building, with the assistance of an advisory board of architects. The achievement, from purely a constructional point of view, was one of the most remarkable which has ever been brought to my notice.

Among the most important of the later buildings is the new Willis Wood Theatre, designed by Mr. Louis Curtis, after the modern French school. Its front is entirely in gray terra cotta.

An unfortunate impediment to a more rapid and permanently successful development in architectural lines is the desire on the part of many of those practising their profession here to be original. These

men lose sight of the fact that originality without method, and invention without temperance and a proper and wholesome respect for traditions, may often lead to what is merely grotesque. Kansas City has some startling examples of this disorder, to which space will not admit a fuller reference.

It may be that we are near the beginning of a new building era. We have yet to point to our first sky-scraper, and it is to be hoped that before the time comes we shall have learned the lessons of professional self-control. It is somewhat appalling to think what might happen were it otherwise.

Frank Maynard Howe.



THE NEW CONVENTION HALL.

Kansas City, Mo.

7

F. E. Hill, Architect.



FIRST CHURCH OF CHRIST, SCIENTIST.

Central Park West and 96th Street, New York City. Carrère & Hastings, Architects.

Copyright, 1904, by Joel W. Thorne.

THE ARCHITECTURE OF A CHRISTIAN SCIENCE CHURCH.

CIENCE and the industrial arts are called upon frequently to invent new terms for new discoveries and inventions. The growing corpulency of our dictionaries attests the energy of the demand. "Ions," "Coherer," "Radium," "Polonium"—to mention the products of the last few days only—evince the rapidity of the collaterial movement of language and knowledge.

It is, however, a rare occasion that demands a new expression from Art, and still more seldom arrives a necessity that produces a specific call upon Architecture to embody in its own particular terms, a new social fact. And yet, pondering on the phenomenal increase of the Christian Science sect within recent years, the question may well have occurred to many: "When this persuasion commences to erect places of worship, what shall we find to be the architectural expression for a Christian Science Church?"

"Something synonymous, if not identical, with the Protestant Congregational meeting-house" is, of course, the obvious answer, all the more obvious, indeed, because in so many cases the followers of Mrs. Eddy established themselves at first in buildings originally consecrated to some one of the many forms of "the dissidence of Dissent." And yet, clearly, provided architecture may rightly be expected to suggest if not positively indicate something of the spirit of the faith it houses, it might well be called upon for some utterance more explicit than a mere reiteration of a Baptist or Presbyterian building to express a creed that apparently concerns itself so immediately with the terrestial welfare of man, rather than, as in the case of other religions, only proximately, and as a mere inconsequential detail of a salvation consummated essentially beyond the grave. Nearly all rituals, it is true, have prayers for the sick and the dving, but the health of the body is not one of their chief concerns, hardly one of their interests at all, and a doctrine that addresses itself in no small measure to the constitutional well-being of the individual and not exclusively "ad majorem dei gloriam" with a "fearful looking forward to judgment and fiery indignation," contains a novel element that the architect cannot ignore.

Designs, so to speak, fresh from the source are not to be expected in these days, least of all in the case of a religious body whose John the Baptist even, had not uplifted his voice in the wilderness a decade or so ago. Such an architectural expression as the Catholic faith found in Gothic architecture is, of course, not within the range of contemplation. The opportunity in the present case is insufficient even if the state of architecture to-day did not preclude it. Still, all limitations admitted, there re-

mained room for legitimate expectation that the design of a Christian Science Church should contain much that is architecturally novel and expressive. It is the reasonableness of this expectation that gives interest in the pages of this magazine to the experiment recently finished on Central Park West and 96th street in New York City. The building is not the first erected for a Christian Science congregation, but within our knowledge it is the first capital enterprise of the kind undertaken on a scale so large and with means so abundant that the architectural problem was as-



FIRST CHURCH OF CHRIST, SCIENTIST-INTERIOR.

Central Park West and 96th Street, New York City. Carrère & Hastings, Architects.

Decorations by Charles H. Cottrell.

sured of all the conditions necessary for adequate solution. The site selected was of ample dimensions and excellently located for its purpose. The expenditures permitted were large and sufficient. The exterior design and plan were committed to a firm of architects that is in the opinion of many at the top of the profession, and the interior arrangements, decorations and equipment were placed in the hands of a decorator who is both a competent artist and an active and intelligent member of the church organization. The result is a building of the highest import at least to Christian Scientists. If we may not speak of a cathedral, in this

case, we certainly possess the metropolitan church. We have already discussed in these pages the architectural merits of the design. Our remaining task is to illustrate the now completed edifice and describe its apartments, so many of which will appear unecclesiastical to old notions.

The History of the Church.

The building recently erected by the First Church of Christ, Scientist, at Central Park West and 96th street, is a material representation of that which the church that built it stands for in the realm of ideals. Of enduring material, built for daily service as well as weekly meetings, beautiful within and without, it shadows forth to a degree the thought which created it.

The Christian Scientists of New York connected with the First Church have wandered long in the wilderness of leased and purchased temporary meeting places, but at last they have found for themselves a habitation after the pattern of the vision they have ever been trying to make real.

In the bringing forth of their church home they have spared nothing material that was required to make the spiritual effective among men. Painting and carving and architectural work have been conceived with little reference to financial limitations and the result has justified the effort. Taking council of utility and grace rather than of the traditions of the ecclesiastical elders, many new expedients have been used and the completed work marks a radical departure from other church buildings. To arrive at this end, the growing congregation had followed a long course of self-denial and avoided debt and its limitations by accepting unsatisfactory halls and churches until it could complete the demonstration of the power of right thought over material restrictions.

Sixteen years ago the church was chartered with Mrs. Augusta E. Stetson as pastor, and it is mainly due to her continued faith, understanding and energy that the present building has been made possible. The church was housed the first year in a small hall at the corner of 47th street and Fifth avenue. From this the growing congregation moved to a hall at 138 Fifth avenue; from there is was obliged by growth to move to Hardman Hall at Fifth avenue and 19th street. Later it again removed and occupied what was once the Rutger Presbyterian Church on Madison avenue and 29th street, and there found rest for three years. In January, 1896, All Souls' Church on 48th street was acquired and radically changed in structure, only the walls being left undisturbed. For seven years this building sufficed, but the growing attendance and membership made another change necessary and the land on the corner of Central Park West and 96th street was purchased four



FIRST CHURCH OF CHRIST, SCIENTIST—ENTRANCE DOORWAY.

Central Park West and 96th Street, New York City.

Carrère & Hastings, Architects.

years ago. Carrère & Hastings were asked to prepare plans for a building to seat twenty-two hundred.

The building finally produced has been to a remarkable degree a development rather than the fulfilment of a formulated plan. It was thought at that time that \$300,000 would be ample to build what was required. When the plans and estimates were furnished, however, it was seen that they would not meet the ideals of those who wished the work done. Not content with brick and Indiana stone, Concord granite was ordered, though the cost of this material in itself, when set and under roof would be \$400,000.

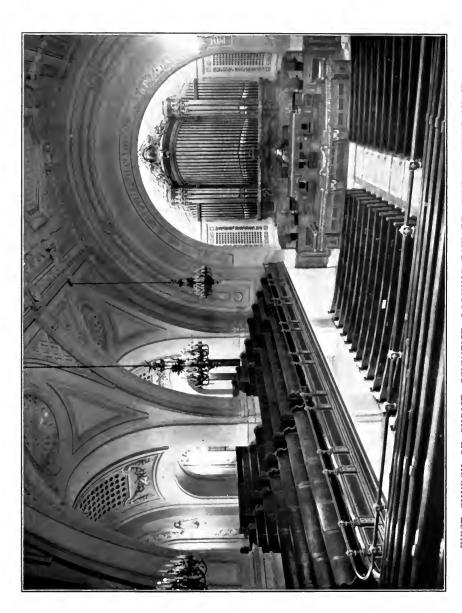
It was then found that even at a cost of \$550,000 the reading room, Sunday-school rooms and offices for the practitioners and church officials must be provided for in the basement. This did not accord with Christian Science ideas, and though the cost was raised to \$750,000 the change was made and the rooms placed above the auditorium and three elevators arranged to meet the needs occasioned by the change.

It was then discovered that a tower of a more expensive design would add to the beauty of the structure and this was also ordered. Finally, all limitations were ignored, new features were added as they were required to make the church more perfect in beauty and utility. Money came in steadily to meet every demand promptly, the twelve hundred members of the church, including the students of the New York City Christian Science Institute contributing all that was necessary without special exhortation other than expressed in a simple request from the platform from time to time for the amount needed to meet the expenses incurred. Each contributor had been healed of some moral or physical defect and all desired to make the church a fitting expression of the thought which Christian Science inspires.

When the dedication took place, the total cost had reached \$1,185,000, and there was no debt. Above the cornerstone there is

this inscription:

FIRST CHURCH OF CHRIST, SCIENTIST, NEW YORK CITY. ERECTED ANNO DOMINI MVIIICXCIX. A TRIBUTE \mathbf{OF} LOVE AND GRATITUDE TO OUR LEADER AND TEACHER, THE REVEREND MARY BAKER EDDY, DISCOVERER AND FOUNDER OF CHRISTIAN SCIENCE AND AUTHOR OF ITS TEXT-BOOK, SCIENCE AND HEALTH, WITH KEY TO THE SCRIPTURES.



Carrère & Hastings, Architects. FIRST CHURCH OF CHRIST, SCIENTIST-LOOKING TOWARD THE READER'S CHAIR. Decorated by Charles H. Cottrell. Central Park West and 96th Street, New York City.

When the structure was planned, it was thought by many that it would be large enough to provide room for all who would attend the church services for years to come, but already the seats are well filled and there is reason to believe that its capacity will soon be taxed to the uttermost.

The church is as large as is convenient and every part has been made as perfect and as permanent as possible. It will stand as a model of modern ideas in church building and be valuable to those who study church architecture. There has been much discussion as to what type the really American church would be found finally to be, and it is possible that this building, with its elevator service, reading room and offices for the work of helping the sick, the discouraged and the sinning, may have an important effect upon ecclesiastical architecture in this country.

C. E.

Cearter 1 Str. Liest and ;

Omen R. Washburn.

Description of the New Building.

New York's newest and most imposing church edifice now greets the eyes of one walking or driving in Central Park West in the vicinity of 96th street. Towering some hundred feet above the curb, it forms a most striking beautiful picture in glistening silvery white granite; stone, so uniform in color and quality as at once to give one the impresion that the whole must have been cut from one huge perfect block. It is, perhaps, largely due to this granite that the more than ordinary solidity of appearance is obtained. However that may be, this particular stone and the architecture of the building form a most perfect and harmonious composition. The corner cornice stones are 12 feet long, 8 feet wide and 3 feet 6 inches thick, weighing eighteen tons each. Being at the corner of the building and over fifty feet high, where it was nearly impossible to either brace or guy the derricks, the setting of these blocks involved a very pretty piece of engineering.

It may be well at this point to mention the quarries from which this stone was taken, as well as the method of quarrying. The quarry is situated in Concord, N. H. It is one of the few white granite quarries in the United States, the product of which does not discolor by exposure to the air, the tendency being rather to grow more white with age. The quarry is furnishing granite for the First Church of Christ, Scientist, of Concord, N. H., a gift from the Rev. Mary Baker G. Eddy. It is the most difficult stone in this country to work because of its extreme hardness. Its peculiar characteristics make it impossible to cut by saw or machinery, thereby necessitating the use of hand labor for the cutting, which



is performed by the slow process of chipping until a smooth surface is obtained, thus making the ruin of an entire block through a mis-stroke of frequent occurrence. The stone is quarried in unusually large blocks. The writer witnessed the effect of a single blast in the quarry which sheared a piece of granite 125 feet long, from 55 feet to 100 feet high and from 10 feet to 20 feet thick, almost as clean as though cut with a saw. From this massive block the smaller ones are cut by means of round wedges hardly larger than a man's finger and only about 6 inches long. The wedges



FIRST CHURCH OF CHRIST, SCIENTIST—THE GALLERY.

Central Park West and 96th Street, New York City. Carrère & Hastings, Architects.

Decorations by Charles H. Cottrell.

are spaced in the stone at intervals of about 6 inches and are gently tapped with a hammer until the stone is cleft. This can only be done in the direction of the natural clevity of the stone, which, however, always runs at approximately right angles with the bed of the stone.

To go back to our subject, the building. On closer examination one is impressed by the numerous small windows in the two upper stories, which at once suggest a large number of rooms above the main auditorium not common in ordinary church construction, and shows the honesty of the architectural treatment.



FIRST CHURCH OF CHRIST, SCIENTIST—EAST GLASS WINDOW.

Central Park West and 96th Street, New York City. Carrère & Hastings, Architects.

Jesus and Mary in the Garden after the Resurrection.

The building really accommodates perfectly what might be classed as two independent organizations as to requirements, having separate entrances and plants complete, as well as connecting doors, making it possible to throw the entire building into one when required.

At either side of the main entrance are two large electrically controlled and direct connected elevators of the modern type, capable of carrying twenty people each. No other instance is recorded of the installation of elevators in a church. Flanking the elevators are



FIRST CHURCH OF CHRIST, SCIENTIST—RECEPTION ROOM.

Central Park West and 96th Street, New York City. Carrère & Hastings, Architects.

Decorations by Charles H. Cottrell,

two rather remarkable elliptical staircases. There is no iron used, although the stairs are 5 feet 6 inches in width. The method adopted is stronger, less expensive and less bulky. It also permits of quicker construction, than do other methods in common usage. Passing through to the auditorium by one of the side entrances, you are under a large overhanging gallery, which extends around three sides of the church and is supported by two large marble piers on either side connected by marble arches to the marble side walls and together by marble beams running longitudinally. These piers and beams coming only half way between the side walls and front of the gallery give the impression of a series of niches along

the sides. This effect is heightened by the fact that the main barrel vault of the auditorium ceiling is sprung from the face of the piers instead of from the side walls, and the sides of the piers with the transverse arches connecting with the side walls develop into three transverse barrel vaults penetrating the main vault of the ceiling. By this method a very massive appearance is obtained, the piers appearing to attach themselves to the outside walls. The centre "motif" of each niche is a large stained glass window running interruptedly from 6 feet above the ground floor up back of the gallery, finishing in a semi-circular lead on axis of the niche above.



FIRST CHURCH OF CHRIST, SCIENTIST—THE SCHOOL ROOM.

Central Park West and 96th Street, New York City. Carrère & Hastings, Architects.

Decorations by Charles H. Cottrell.

These windows are very charming in their simplicity, having a warm gray field with a foliage border of soft greens and autumn colorings. In the centre of each of the upper sections is a medallion executed in quiet monotone effect of green and brown framed fittingly in green and amber. The whole effect is heightened by the tone of the woodwork, which is of a most uncommon rich gray brown which effect is obtained by the use of a Circassian, Italian and French walnut, bleached up in such a manner as to produce a very light tone, while at the same time preserving the grain. The delicate fawn color of the Istrian marble is recalled in the coloring of the ceiling, which is used to accentuate the architectural design and modeling rather than as a bit of color decoration.

The organ and reader's platform is placed in the centre of a large perforated plaster niche which is treated in the same colors as the ceiling. The walnut woodwork with its dull ivory and gold mounts, and the organ pipes of Etruscan gold form a most pleasing climax. It may be interesting to note that the modeling of the organ above the keyboard is all done in plaster and toned to the color of walnut to match the wood. The lighting is worthy of note as well as the fixtures, especially the six large chandeliers, weighing over half a ton each and carrying seventy-eight lights each. These fixtures



FIRST CHURCH OF CHRIST, SCIENTIST—THE READING ROOM.

Central Park West and 96th Street, New York City. Carrère & Hastings, Architects.

Decorated by Charles H. Cottrell.

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are probably the finest example of a public chandelier work in America.

On the way to the reading rooms above, one is surprised to find a series of rooms worked into the haunches of the arch of the main auditorium. This would have been a comparatively easy problem had it not been for the clerestory windows, which feed light to the perforated sunbursts in the ceiling of the main auditorium. The problem was, however, solved by building light walls over each of the perforations and locating the passages and rooms around the walls, with bay windows into the same. On the top or reading room and Sunday-school floor, a large room has been arranged with dome light thereover. This room is surrounded by smaller rooms for church officials and practitioners.

Charles H. Cottrell.



RESIDENCE OF MR. CHARLES DANA GIBSON.

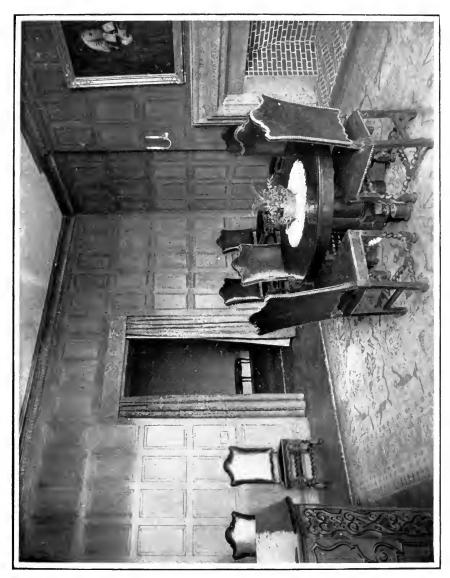
No. 127 East 73d Street, New York City. McKim, Mead & White, Architects.



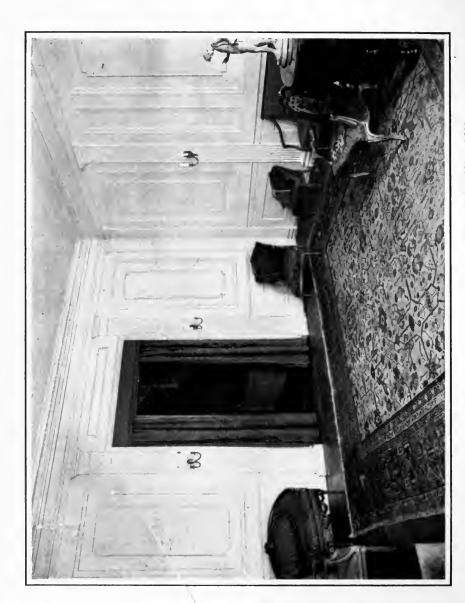
RESIDENCE OF MR. CHARLES DANA GIBSON—ENTRANCE HALL.

No. 127 East 73d Street, New York City.





McKim, Mead & White, Architects. RESIDENCE OF MR. CHARLES DANA GIBSON-THE DINING ROOM. No. 127 East 73d Street, New York City.





RESIDENCE OF MR. CHARLES DANA GIBSON-THE DRAWING ROOM.

d Street, New York City. No. 127 East 73d Street, New York City.





McKim, Mead & White, Architects. RESIDENCE OF MR. CHARLES DANA GIBSON-THE LIBRARY. No. 127 East 73d Street, New York City.

TECHNICAL DEPARTMENT.

SAND-LIME BRICK.

N IMPORTANT factor in the building trades market is the sand-lime brick, a comparatively recent importation from Germany. The claims of the originators of this industry in America only three years ago were received with suspicion, but in this short time it has been demonstrated that a



better and a cheaper face or finishing brick can be made from sand and a small percentage of lime than from clay. The entire process of manufacture requires but twelve hours. A number of prominent public and private buildings have been erected throughout the United States from the sand and lime bricks, which

not only present a handsome exterior. but recent experiments have shown that the material, instead of showing signs of disintegration, as predicted by some of its enemies, is gradually growing stronger and harder. One great advantage over other material is that the sand and lime product can be made in

any color or combination of colors desired, which gives to the architect an opportunity to secure striking effects not possible with clay bricks,

The natural color of the sand and lime brick is a soft grey. By using lime-proof pigments in the manufacturing process, these bricks



are colored as desired. The quality of the brick depends to some extent on the purity of the lime, the silica properties of the sand and the process of manufacture.

This product is no longer an experiment, and the time is past for neglecting so strong a factor in the structural market.

We publish cuts of the new High School building at Bennetsville, N.C., built from "Huennekes System" sand-lime bricks, which certainly indicate the high quality of the product.

The fact that the promoters of the enterprise, H. Huennekes Company, New York, have erected over twenty factories in various sections of the country during the past year, demonstrates the remarkable growth of the industry.

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MARCH, 1904.

No. 3.

THE ARCHITECTURAL WORK OF CHARLES A. PLATT.

MERICAN architectural practice has pretty well decided that the safest and most fruitful kind of work which the good American architect can do is that of continuing in this country the great European architectural tradition. American criticism agrees, on the whole, with this practice, because it realizes that in a country, which a generation ago was an example of fearfully perverted popular architectural taste, the educational need and purpose should in the beginning determine the prevailing forms. After the architects have become accustomed to designing, and the public have become accustomed to seeing, good architectural forms, it will be time enough to demand that these forms be modified, with a special view to giving them a higher degree of individual, local and national propriety.

The trouble with the first generation of well-trained American architects was not that they were imitative, but that they were perhaps rather too indiscriminate in their imitation. They tried experiments in too many styles, and did not cleave with sufficient assiduity to the architectural types most appropriate to their work, and to their individual powers of design. Doubtless, they had a sufficient excuse for this ecclecticism, in that they could, perhaps, learn only by such experimentation just what architectural forms "took" and served best in the undiscovered country of American architectural achievement; but the experimental character of the work not only condemned it frequently to a lack of propriety, but it confused popular taste and prevented architects from appropriating the promiscuous forms they used. At any rate, there can be no doubt that the next step in the regular improvement of American architectural practice must consist in the more careful selection by the individual designer of his favorite architectural forms, and the persistent endeavor to give to these forms a more individual and local rendering. That at least is the

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step which the well-trained architects of the younger generation are now taking. They are experimenting within much narrower

limits than formerly; they are converging upon the selection of a comparatively few of the best architectural types; and they are showing an increasing freedom and an increasing consistency in the treatment of those types. It will be a still farther improvement in architectural practice when the field of selection is made even narrower, and when the few favorite types become by constant repetition so familiar as wholly to lose their novel and experimental character.

It is in the light of this general tendency of American architectural practice that the work of Charles A. Platt can be most profitably considered. He is one of the younger architects who has made his mark in the last few years, and whose designs show plainly the influence of the selective ideal. They are derived from the best sources, but not from all the best sources, the area of choice being restricted by a strong conviction that only certain architectural forms adapted to the kind of work with which Mr. Platt is particularly identified. has not, consequently, gone outside a comparatively few types of designs, all of which have their historical and logical relations one to another. These several types of design he has used so persistently, and has studied so carefully that he is fully acquainted with their possibilities and values.

Thus he has been able to treat them GARDEN FURNITURE with an ease, a consistency, a propriety OF "FAULKNER FARM." and an effect, to which he could not have attained had his principle of choice been more eclectic.

II.

The department of design with which Mr. Platt is particularly, but by no means exclusively identified, is that of the country house and garden, and it is in this department that his work has been most influential and most original. If Mr. Platt did not actually intro-



duce the Italian formal garden into this country, he most assuredly has given the American version of this very beautiful and complete type of landscape design a new meaning and a higher standing. He had the peculiar advantage of being able to approach landscape design, not as a man whose training was exclusively architectural, but as one whose interest in garden design sprang directly from the observation of nature, and a thorough professional familiarity with landscape values. He was a landscape painter before he was an architect; and he made a special study of Italian gardens before he ever attempted to design them. It may seem surprising to people, who are the victims of the supposed antithesis between "naturalistic" and formal gardens, that a man who had



GARDEN FURNITURE OF "FAULKNER FARM," BROOKLINE, MASS.

achieved high success as a landscape painter, and whose great distinction consists in his appreciation of the proper landscape values, that such a man should be particularly identified with the better establishment of the formal garden in this country; but in truth the antithesis between the formal and the "naturalistic" garden is one which arose only during a recent period, when the "formal" garden, as transplanted to England, became rigid and stiff. The Italian gardens, formal as they were, were designed with an eye strictly to landscape values, and constitute without doubt the supremely happy blending of architectural propriety and out-of-door feeling. They are the original and classic type of garden from which the French and English gardens are descended, and to which we must return for the spirit and principles of the best landscape architecture.

The Italian garden was, however, only one aspect or division of Italian villa architecture, and the historical point of departure

from which Mr. Platt's work is to be considered, is that of the Italian villa of the Renaissance, as a complete residential type. These villas occupy an important and definite place in the history of domestic architecture, because they embody the first great residential style of the modern period, and because they were designed by a people who, in their great time, came nearer than any other modern people, to the classic love of formal beauty, and to the classic sense of propriety in form. This ability to imagine appropriately beautiful forms received one of its most consummate expressions in the villa architecture of the period. We are apt, nowadays, when we think of the consummate country house, to recall instinctively certain memorable English examples; but on the whole the English country houses and estates derive their



THE HOUSE OF GEO. H. PAGE.

Chas. A. Platt, Architect.

Chicoroa, N. H.

value as models from the evidence they offered of constant and loving attention, from the extent to which their surroundings have been encouraged to grow up around them, than from any especial excellence of design. The English country house is a concrete embodiment of the whole history of English country life. It has been confirmed by time and precious association, rather than by original architectural genius. In the Italian villa, on the other hand, the attempt was consciously and successfully made to design a kind of house which would fit the landscape closely, and to lay out the grounds so that they would enhance the effect of the house. The result is a type of domestic country architecture, which even in its decay, possesses a wholly unique beauty and charm.

It is worth while to pause for a moment and consider this type, not only because of its bearing upon Mr. Platt's work, but because of its peculiar value under contemporary American conditions.

These villas, like the American country house, were not intended for people resident on the soil; they were intended as the occasional country habitations of highly-civilized gentry, who, in income and tastes, were the product of the city life. Now the Italians like the French are candidly and consciously civilized, if civilized at all. When they go to the country they carry with them their civilization, their artificial and artistic demands; they do not go to the country in order to return, so far as decency permits, to a state of nature; and they do not feel any incompatibility, when in the country, between the formal treatment of the immediate surroundings of the house and the informal beauties of the natural landscape. What they ask is that their country residences should give the finest and fullest opportunities to enjoy the various pleasures of country life, and that their houses and grounds should be frankly expressive of this demand. Among these pleasures would be included the pleasure in a beautiful landscape, with which the house would compose, and which could be seen to good advantage from the house and garden; the pleasure in flowers, and in the grouping of plants and shrubs, so as to make a convenient and effective show; the pleasure in various country sports, which in those days consisted mostly in hunting, and in ours mostly in games; the pleasures of a hospitality and of the opportunity to entertain one's friends; and finally the pleasure of leisure, of freedom from insistent pre-occupation with affairs, of the chance for a little quiet reflection and refreshment.

The Italian villas and estates satisfied to a greater or smaller extent all of these demands, because they were built for men of great wealth, of large ideas and of a uniform standard of culture; but in attempting to transfer the type to this country an American architect would be immediately confronted with the fact that his clients included people of large and of small resources, and of high and of low aesthetic demands. Mr. Platt, like his professional associates, has been obliged to meet the difficulties inseparable from the attempt to adapt an elaborate and exacting architectural type to the widely varying resources and tastes of an American clientele. He has had during his practice all sorts and conditions of workincluding a number of small frame and stucco houses, situated for the most part in the Cornish Hills of New Hampshire; and these smaller places which he has designed, are, as may be seen from the illustrations, peculiarly interesting, because he has evidently bestowed upon them, irrespective of their cost, a great deal of careful consideration. The attempt has obviously been made, for instance, to lay out small estates, which shall possess a certain completeness of effect. The architectural lines of the houses have been carefully designed, so that the structure takes its proper place



Chas. A. Platt, Architect. "HIGH COURT," FORMERLY THE RESIDENCE OF MRS. HUMPHREYS JOHNSTON. (Since destroyed by fire.) Cornish, N. H.

in the landscape; the look of the landscape from the house has been as scrupulously considered as the look of the house from its various lines of approach; and almost every place has its properly situated garden, and its appropriate scheme of landscape treatment. Of course, so much work could not be done at a small outlay, except by the use of cheap materials, such as wooden walls and columns; but the difference in the result is fundamentally a difference in the permanence which this result obtains. The



THE RESIDENCE OF CHAS. A. PLATT.

Corrish, N. H. Chas. A. Platt, Architect.

wooden walls will not last; they will have to be replaced eventually by a wall made of some more durable and structural materials: but in the meantime, like the plaster colonnades of a World's Fair. they have served their purpose. They have enabled the architect to make valuable experiments as to the best means of obtaining certain desired effects; and what is equally important, they have aroused the aesthetic interest and pride of the owner of the es-

tate. Moreover, the experiments in cheap materials may well have an additional advantage in developing methods, whereby comparatively permanent results can be secured in cheap materials. In spite therefore, of the fact that the demands of a complete design obviously strain the resources at the architect's command when those resources are small, it remains true that these frame houses



Chas. A. Platt, Architect. Looking towards the hill, which bounds the garden on the east. THE RESIDENCE OF CHAS. A. PLATT.

Cornish, N. H.

are legitimate examples of formal treatment, quite within the peoples of people of good taste and small incomes, yet not pitched on a scale incongruous with the appropriately modest demeanor of a small country place.

In the case of the majority of American country houses the site upon which the owner decides to build has usually been determined by the "view," and in such cases this fact necessarily has an important effect upon the plan and design of the house and the lay-out of the grounds. Among Mr. Platt's earlier work, the house figured on page 186, and called "High Court," may be taken as a type of a house situated on the top of a hill and overlooking a great expanse of country. In an estate of this kind the land generally falls away very abruptly from the site of the house, so that the formal treatment of the grounds must be somewhat limited, and the design necessarily adapted to the absence of many of the accessory and contributory effects, which might be effective on more level ground. To design a house that fits snug upon its hilltop, to relieve the architectural edges and corners with a framing of trees, and to define the landscape properly from the house by means of the court and its columns—to such results as these the architect has given his chief attention. It will be seen, consequently, from the illustration, that there are practically no intervening gardens, and the house is one which might or might not have gardens connected with it, because the garden is not anything which would count in the appearance of the villa as a whole from the distance. In this particular case, a flower garden was added behind the wall to the left of the house; but this garden has been very fully enclosed, so that its smaller proprieties shall not compete or clash with the great scale and dominant effect of the general view.

In the case of Mr. Platt's own house, on the other hand, the immediate surroundings of the building are more important than the view. The garden, consequently, is situated in front of the house, on a lower level. It intervenes, that is, between the house and the view, and mediates between the two in a way that would be inappropriate in such a place as "High Court." Very little artificial enclosure has been desirable for the garden, because a hill on the one end and a belt of pines on the other, give it natural boundaries which are peculiarly and entirely sufficient. The illustration published on page 187, shows the house as seen from the garden, and across the perennial phlox in full bloom, while the illustration on page 192 shows a view along the axis of the garden parallel to the house, and looking towards the belt of pines mentioned above. There is no illustration of the garden looking in the other direction, but on page 188 is a reproduction of the walk between the house and the garden looking towards the hill, which



STUDIO ADJOINING THE RESIDENCE OF CHAS. A. PLATT.

Cornish, N. H. Chas. A. Platt, Architect.



VIEW FROM THE STUDIO OF CHAS. A. PLATT.

Chas. A. Platt, Architect.

Cornish, N. H.



THE GARDEN OF CHAS. A. PLATT.

Looking toward the belt of pines bounding the garden on the west.

Cornish, N. H. Chas. A. Platt, Architect.



THE GARDEN OF HERBERT CROLY. Chas. A. Platt, Architect.

Cornish, N. H.

in appearance bounds the garden at its other end. This hill, it may be added, is the one on which "High Court" is situated, and the building on its summit is the studio of "High Court." It has not been possible to illustrate in a satisfactory way the look of the landscape from "High Court," which is one of extreme beauty; but on pages 190-191 will be found a picture of Mr. Platt's studio from the walk, and one of the landscape from the studio, and framed by the columns of its porch.

Mr. Platt's house shows, perhaps, better than any other how much can be accomplished with inexpensive materials, and by



THE GARDEN OF HERBERT CROLY.

Cornish, N. H.

Chas. A. Platt, Architect.

means of a small outlay to build up a fully designed country place—one in which the advantages of the site are cleverly used in order to produce an effect at once thoroughly informed by some architectural treatment, yet at the same time as thoroughly imbued with a correct sense of proper landscape values. It is a better illustration of this type of residence than the house and garden illustrated on pages 193-194, because in this other instance the whole scale of the plan is so small that it would not have been possible to seek any architectural effects on the south side of the house in the direction of the greatest expanse of landscape without designing something which would be too imposing for the other parts of the composition. In this instance, consequently, the design suf-

fers more from insufficiency of means than in the cases of the other houses.

III.

Turning now to the more expensive and elaborate places which Mr. Platt has designed, there are two gardens which are in a class apart, and which deserve separate consideration—the gardens of "Faulkner Farm" and of "Weld." In each of these cases the means at the architect's disposal were sufficient to make a garden, in which the completeness of the type could be fully realized, while



THE RESIDENCE OF HERBERT CROLY.

Cornish, N. H.

Chas. A. Platt, Architect.

at the same time the architect was restricted by the fact that he was designing the grounds around a house already in existence. "Faulkner Farm" was the first of them in point of time, and may be fairly said to have started a new period of garden design in this country. Previous essays in that direction had not gone much beyond thetopiary exploits of the Hunnewell place at Wellesley, Mass, in which natural forms are senselessly perverted at the bidding of a supposed necessity for formal horticulture. The Hunnewell garden stuck, however, more closely to the Italian prototype, in that its planting consists largely of evergreens, whereas one most conspicuous division of "Faulkner Farm" is the flower garden, which is



"FAULKNER FARM"—THE TERRACE FROM THE GARDEN. - Estate of Mrs. C. L. Sprague, Brookline, Mass. Chas. A. Platt, Architect.

as it were, shut down during the winter. In this respect, however, the gardens of the northern part of the United States necessarily take a line of their own, partly because Americans like a great deal of bloom in their gardens, and partly because in our snow-covered country we cannot help shutting down our gardens from December to March.

The plan of Faulkner Farm is particularly worth careful attention, because of the peculiar interest of the site and the success with

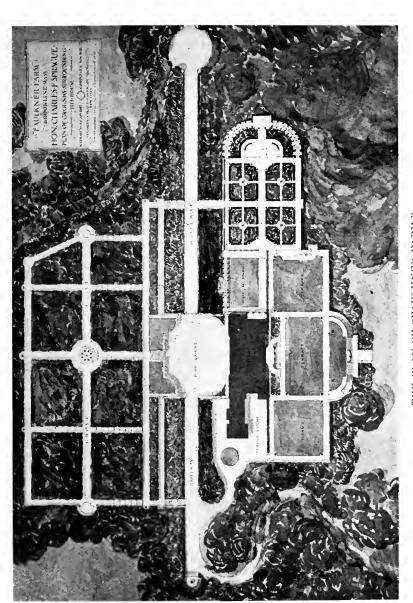


ACROSS THE GARDEN OF "FAULKNER FARM."

Estate of Mrs. C. L. Sprague, Brookline, Mass. Chas. A. Platt, Architect.

which its advantages have been used. In this place the view only counts on one side—on the side indicated in the plan by the absence of foliage. In every other direction either rising ground or trees, or both cut it off. The space, consequently, between the house and the line at which the land falls sharply off has been left as a terrace, which, since it is intended as a frame or foreground for the view, has been kept absolutely bare and simple. The character





THE PLAN OF "FAULKNER FARM." Estate of Mrs. C. L. Sprague, Brookline, Mass.

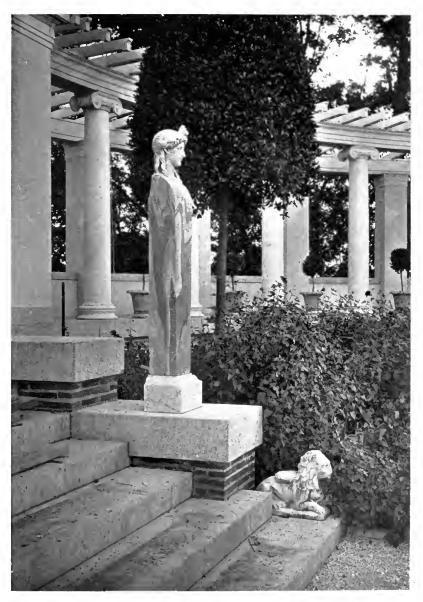
Chas. A. Platt, Architect.



THE GARDEN OF "FAULKNER FARM." From the Pavilion.

Estate of Mrs. C. L. Sprague, Brookline, Mass.

Chas. A. Platt, Architect.



THE PERGOLA OF THE GARDEN OF "FAULKNER FARM."

Estate of Mrs. C. L. Sprague, Brookline, Mass.

Chas. A. Platt, Architect.



THE DESCENT FROM THE TERRACE OF "FAULKNER FARM."

Estate of Mrs. C. L. Sprague, Brookline, Mass.

Chas. A. Piatt, Architect.

of this terrace, and its relations to the house and garden is shown in an illustration on page 196. The flower garden itself was pushed away from the house into a clump of oaks, in order to give the garden a sufficient inclosure on that side, and in order, also, to form a background for the distant view, which otherwise would have introduced a wholly incongruous element into the composition. The effect of this oak background can be gathered from the several illustrations of the pergola. The wooded surface, called the "Grove" in the plan is intended primarily to count as a background for the house, when seen from a sufficient distance; but although such is



INTERIOR OF THE PAVILION OF "FAULKNER FARM."

Estate of Mrs. C. L. Sprague, Brookline, Mass. Chas. A. Platt, Architect.

its chief purpose, it is situated so near the house that the architect has naturally made it exceedingly attractive and serviceable in a number of minor ways by means of walks, seats, fountains and the like. In this and in other respects the garden has many subordinate features of interest, not the least of them being the quantity of beautiful furniture, which has been collected in Italy and appropriately placed in different parts of the garden and grounds. It is characteristic of Mr. Platt's work, however, that such detail is kept absolutely in its place, and that the design is interesting chiefly because its large dispositions, which, although indicated by the requirements of the site, are combined into a well-composed whole.

In the estate of "Weld" also, the house already existed and the desire of the owner was to have the grounds around his house effectively treated, but the nature of the site was so absolutely different that a wholly different treatment was required. The house was situated on the top of a denuded hill, open to a large view on all sides, except that adjoining the house. The dimensions of the flower garden were determined by the size of the hill, and its character by the fact that the identity of the garden could be maintained only by shutting off the great expanse of landscape from the salient points of view within the garden. At the same time, of



ENTRANCE TO THE GARDEN OF "FAULKNER FARM" FROM THE DRIVEWAY.
Estate of Mrs. C. L. Sprague, Brookline, Mass.

Chas. A. Platt, Architect.

course, since it was this landscape, which itself had determined the site of the existing house, it could not be entirely shut off. These several requirements of a satisfactory design were met by a scheme, which included three levels within the garden, and on the highest level, an architectural enclosure, which was sufficient to shut off the landscape from mall of the garden, but left it open to a person standing on the upper walks. The illustration on page 206 gives some idea of these several levels, and of the enclosing parapet on the side of the garden. When on the upper walks in the neighborhood of the gazebos, any elaboration of detail, which would distract the attention from the distant landscape has been purposely omitted, whereas within the garden its sunken position has enabled

the architect to enrich the chief points of view with a great deal of appropriate and beautiful furniture. The actual plan of the garden is almost square; but these not altogether happy dimensions have been cleverly dissembled by a mall along its central line, which serves to give it the appearance of length. Owing to its location and its necessary enclosure, the dominant effect of the garden is



VIEW ALONG THE PARAPET FROM THE END OF THE PERGOLA— THE GARDEN OF "FAULKNER FARM."

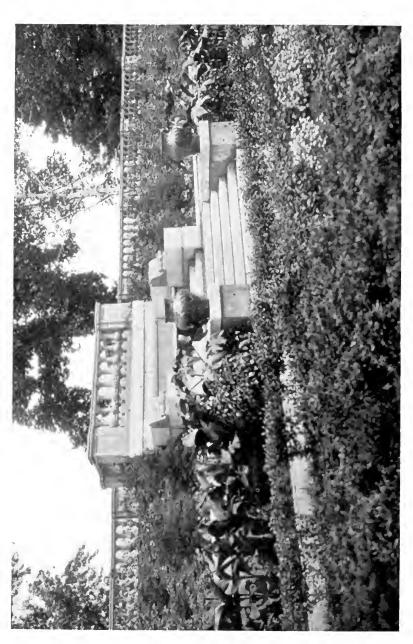
Estate of Mrs. C. L. Sprague, Brookline, Mass.

Chas. A. Platt, Architect.

architectural, but this architectural effect will in the course of time be more and more softened and subdued by the growth of the shrubbery within the garden.

IV.

In all the examples of Mr. Platt's work considered hitherto, the houses were built either of wood or stucco, or else were erected before the design of the garden and its surrounding was placed in



Chas. A. Platt, Architect. RAISED SEAT AT THE SIDE OF THE GARDEN OF "WELD." Estate of Larz Anderson, Esq., Brookline, Mass.



THE MALL OF THE GARDEN OF "WELD."

Chas. A. Platt, Architect.

Estate of Larz Anderson, Esq., Brookline, Mass.

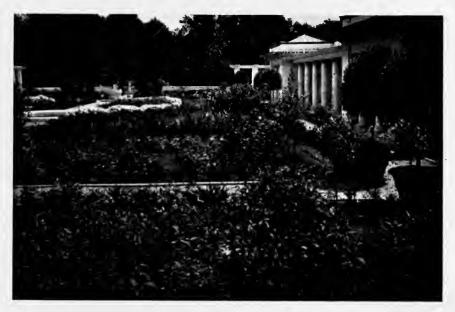


VIEW DIAGONALLY ACROSS THE GARDEN OF "WELD." Estate of Larz Anderson, Esq., Brookline, Mass.



Chas. A. Platt, Architect. THE UPPER END OF THE GARDEN OF "WELD." Estate of Larz Anderson, Esq., Brookline, Mass.

his hands. When he proposed, however, to design a brick dwelling, which occurred, of course, early in his professional career, he was unable to refer so immediately to Italian precedents as he had done in the foregoing examples. The Italians themselves had built mostly in stone or stucco, and their domestic architecture did not offer any original suggestions as to the treatment of such a material as brick. It was natural consequently that he should under such circumstances look for his models to the adaptations which had been made of the Italian forms by the brick building peoples of Northern Europe. The English in particular have liked to build their country residences of brick, and the design of these residences



"GLEN ELSINORE," THE GARDEN OF MRS. R. M. CLARK.
Pomfret, Conn. Chas. A. Platt, Architect.

ever since the end of the 16th century has been profoundly modified if not entirely determined by the Italian Renaissance villa, so that it was in the English brick version of the Renaissance that he sought the forms of his brick dwellings.

Among the different phases of English brick domestic architecture, Mr. Platt has preferred those of the best period of the English Renaissance. The Jacobean house was mediaeval in its plan, its most important members, and in the spirit of its composition. It borrowed from the Italian Rennaissance only certain decorative details of its exterior and interior. Not until the end of the 17th century were the great English houses designed in the classic forms, and with something of the classic spirit, and even



"GLEN ELSINORE," THE GARDEN OF MRS. R. M. CLARK. Chas. A. Platt, Architect. Pomfret, Conn.



Chas. A. Platt, Architect. "GLEN ELSINORE," THE GARDEN OF MRS. R. M. CLARK.

Pomfret, Conn.



Chas. A. Platt, Architect. "HARLAKENDEN HALL," THE RESIDENCE OF WINSTON CHURCHILL.

Cornish, N. H.

then the plan of these houses showed little of the Italian influence—of the Italian preference for "bland vistas" throughout the different rooms. It is on the earliest and best of these English Renaissance houses, such as the newer portions of Hampton Court, that Mr. Platt has apparently depended for the tradition of brick architecture, which he has adopted; and the suggestions which he has derived from these buildings should be distinguished from the later Georgian dwelling and its American Colonial prototype. The Georgian and Colonial dwellings were frequently bourgeois in their atmosphere. They were built more often in small towns



LOGGIA OF "HARLAKENDEN HALL."

Residence of Winston Churchill, Cornish, N. H. Chas. A. Platt, Architect.

and in the suburbs than actually in the country; they were generally of modest dimensions, and particularly in this country were seldom enhanced by any architectural treatment of the site. What we chiefly mean by the Colonial dwelling, consequently, was a stiff unpretentious style, whose greatest merit consisted in its excellent proportions, but whose highest effect did not go beyond a certain correct respectability of demeanor. Only in certain details did they obtain any elegance and distinction, and such details were only sparingly used, because their owners were generally well-to-do, middle-class merchants—too conscious of their position ever to compete with the gentry.

As the earlier English houses showed, however, there was nothing necessarily either prim or bourgeois about the characteristic forms of the English Renaissance. These forms, when used for large buildings, were, perhaps, more frequently embodied in stone than in brick, and there has been a tendency for the brick dwelling, particularly in the detail, to become timid and wear an excessively modest and reticent appearance. Nevertheless, there is no reason



DOORWAY OPENING ON THE TERRACE OF "HARLAKENDEN HALL."
Residence of Winston Churchill, Cornish, N. H. Chas. A. Platt, Architect.

why the Renaissance forms, characteristic of the style, should not, even in brick, become as frankly and boldly expressive of a high and cultivated manner of living as they did during the Renaissance. They were used in the 18th century by people with a considerable sense of form, social and architectural, but without much freedom and flexibility of imagination, and it is capable of assuming very different merits, whenever these Renaissance houses are

built for people of wider social horizon, and are designed by architects who can make their style both positive and discreet. There is certainly no lack either of freedom or discretion about Mr. Platt's adaptation of English brickwork. The five examples of brick dwellings illustrated in this number differ considerably both from each other and from the originals, and these differences, while due in one case to the scale of the house, have been also brought about by flexibly adapting the house to the site, by the free use of additional members such as the loggias, nicely subordinated to the general design, by the careful study of the proportions and the



THE COURT OF "HARLAKENDEN HALL" AND ITS APPROACH.

This court is to be completed by the erection of iron gates.

Residence of Winston Churchill, Cornish, N. H. Chas. A. Platt, Architect.

detail, and wherever possible by an elaborate architectural treatment of the surroundings.

While the grounds around all of these brick houses have received attention from their architect, flower gardens are in several instances lacking; and in at least one of these instances, it is lacking because the site of the house restricted the opportunities of placing a garden in any proper relation to the building. The residences both of Dr. A. C. Cabot and Mr. Winston Churchill are situated in the woods, so that the views therefrom, looking toward the chief points of interest in the landscape, have had to be cut through the trees. In the case of the Churchill place, there is in addition, no level ground upon which a garden could be placed, while the garden of Dr. Cabot is limited to some beds on each side of a mall, forming a foreground for a long vista through the woods. North Farm, on the other hand, is situated in a compara-



THE HALL OF "HARLAKENDEN HALL." Residence of Winston Churchill, Cornish, N. H.





RESIDENCE OF DR. A. C. CABOT.

tively flat country with a view of Narragansett Bay on one side, and an extremely interesting plantation on the other. The problem of putting this plantation into shape was largely one of elimination and grading; but advantage has been taken of rows of trees to get them on axe with the principal vista of the house, so that the house might appear to have been there when the trees were planted.

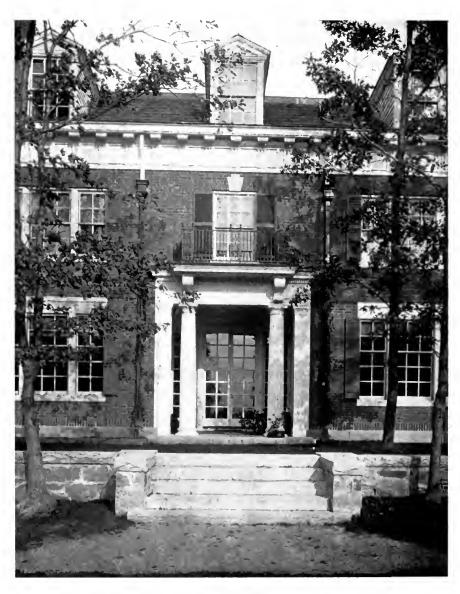
Of all the estates which Mr. Platt has designed, the place in which the conditions appear to have been most favorable is Maxwell Court, and the result is correspondingly complete and happy—implying that the architect could dispose of abundant resources, and had the opportunity of designing the layout of the



. THE LIVING ROOM IN THE RESIDENCE OF DR. A. C. CABOT.
Cherry Hill, Canton, Mass.
Chas. A. Platt, Architect.

whole estate, including the architecture of the house and the disposition of the garden. The building itself is the most imposing residence, which has issued from Mr. Platt's office and the whole architectural treatment is nicely adapted to the ampler dimensions and the more impressive scale of the estate. Stone, for instance, is used much more freely in the trimmings of the house; and such features as the loggia and the terrace suggest rather the frank and brave display of certain Italian houses than the somewhat timorous under-statement of the majority of Georgian dwellings. The whole place is both eminently domestic in its atmosphere, and yet eminently effective in a high, fine, firm style.

Maxwell Court is situated on an abrupt hillside, with a distant landscape counting as an essential condition of the planning both



THE ENTRANCE TO THE RESIDENCE OF DR. A. C. CABOT.
Cherry Hill, Canton, Mass.
Chas. A. Platt, Architect.

of the house and garden. On the side of the terrace the problem is similar to that of Faulkner Farm, and the terrace has been designed chiefly as the place, from which the view is to be seen; but on the side of the garden the conditions are necessarily the reverse. The garden of Faulkner Farm was, as stated above, pushed into a grove of oaks, which constituted the background of the architectural boundary of the garden at that end. At Maxwell Court, on the other hand, the pergola is disengaged from any background of foliage, and a beautiful and extensive landscape is visible from it, and in a modified way from the rest of the garden. The pergola, however, has been designed particularly to frame the view, and to



DINING-ROOM, RESIDENCE OF DR. A. C. CABOT.
Cherry Hill, Canton, Mass.
Chas. A. Platt, Architect.

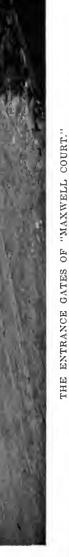
reduce it to a scale commensurate with that of the garden. Consequently, the columns have been left open at the back, instead of being closed as at Faulkner Farm, and at the same time this end of the garden has been purposely made less attractive in detail so that there shall be no features of subordinate interest to distract the attention from the major interest of the landscape. While the effect of this treatment might be said to hurt the appearance of the landscape from the house, because the pergola is situated in the direct line of vision, yet the disposition is really one which enhances the value of the view as one of the beauties of the estate, just because this view cannot be seen at its best except from the pergola. The consciousness that the landscape is there tempts one to the



"MAXWELL COURT," RESIDENCE OF ROBERT MAXWELL.
Rockville, Conn. Chas. A. Platt, Architect.



HALLWAY OF "MAXWELL COURT." Chas. A. Platt, Architect. Residence of Robert Maxwell, Rockville, Conn.







Chas. A. Platt, Architect. THE HOUSE FROM THE GARDEN, "MAXWELL COURT." Residence of Robert Maxwell, Rockville, Conn.



Residence of Robert Maxwell, Rockville, Conn.

end of the garden, so as to see it the better; and when the garden is crossed for this purpose the view as framed by the pergola is a sufficient reward for the trouble.

V.

Before passing to a consideration of the general quality of Mr. Platt's work there are two other buildings illustrated herewith, which deserve individual mention. The special interest of these buildings consists in the fact that they are, neither of them, private dwellings and consequently show the issue of Mr. Platt's methods



THE GARDEN OF "MAXWELL COURT."

Residence of Robert Maxwell, Rockville, Conn.

Chas. A. Platt, Architect.

and power of design in other classes of buildings. Of these the more important is the dining and bathing pavilions erected for Mr. Charles M. Schwab at Richmond Beach Park, Staten Island. As is well known Mr. Schwab purchased some years ago a very available stretch of beach on Staten Island, with many acres of park land back of it, in order to make a marine playground for the poor children of New York during the summer months. For the purpose of carrying out this plan a building was needed, in which a thousand children could be fed, and which would also supply office and living accommodations for the staff of permanent employees required for the administration of the charity; and the

structure which Mr. Platt has designed for these requirements is one of the most original and brilliant, as well as one of the most beautiful of his achievements. It consists of a long colonnade, open both on the sea and the land side, and finished at the end by two pavilions. The pavilion to the left is used for offices and living rooms; the pavilion to the right for the pantry, kitchen and the like. The tables for the luncheon to be served to the children will be placed in the space enclosed by the colonnade. This arrangement is not only as convenient as any other, and gives the children a cool and spacious place in which to eat, but it has the great ad-



THE LIVING ROOM OF "MAXWELL COURT."
Residence of Robert Maxwell, Rockville, Conn. Chas. A. Platt, Architect.

vantage of affording a platform from which all the beauties of the situation and all the amusements, which the beach and the playground afford, are centered and composed. The outlook toward the sea is entirely free and unembarrassed, as is the outlook on the land side—a fine stretch of green grass, the waters of a lake and beyond the trees and sky. The children can see everything while eating their lunch, and can run off thereafter, wheresoever they please, without unnecessary confusion, impediment or delay. The composition of the building itself is compact, without being in the least stiff. The impression it produces is of a dignity corresponding with the almost institutional nature of the charity, yet

it is also gracious, and within the colonnade, the effect is even gay and exhilarating. Its gracious and hospitable aspect will of course, be very much enhanced, as soon as the shrubs, vines and trees, which are an important part of the plan, have been planted and have reached a sufficient growth.

The other special building to which attention should be particularly directed is the Rockville Public Library. The small American public libraries have tended to assume, unfortunately, something of the character of sarcophagi, and have been about as far as possible from presenting an inviting appearance to prospective

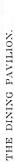


DINING-ROOM OF "MAXWELL COURT."

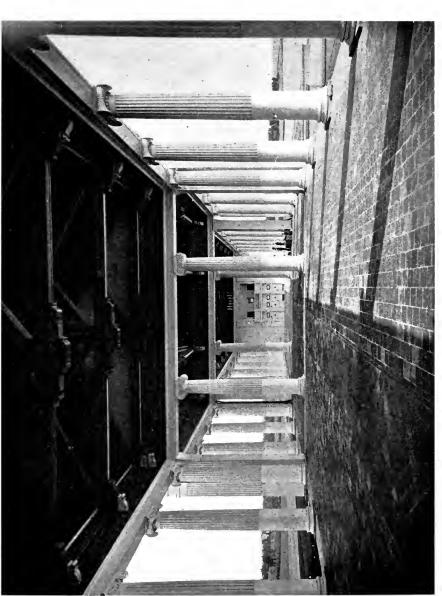
Residence of Robert Maxwell, Rockville, Conn. Chas. A. Platt, Architect.

readers. The architects of these buildings have habitually overlooked the partly domestic character which a small building devoted to the storing, distribution and reading of books should assume, and have designed little school pieces of institutional architecture. In the case of the Rockville Library the design conforms strictly, too strictly, to the institutional type. It is a classic, marble building, situated high above the street, and approached by a broad flight of steps. But while there might have been more propriety in a more modest material and style, the building is none the less a peculiarly successful, and in its way appropriate essay in classic





Richmond Beach Park, Staten Island.





THE DINING PAVILION.



Chas. A. Platt, Architect. THE DINING PAYILION, FROM ACROSS THE LAKE. Richmond Beach Park, Staten Island.

design. The marble possesses fortunately an exceptionally warm and lively grain and color; the scale of the detail is admirably bold and telling; and the design itself, while as tight as a classic design must and should be, is still opened up and relieved by the large, round-arched windows and the small panes of glass. These windows help to give the building something of the inviting aspect, which, as we have said, is the dominant effect, which a small library building should possess. At the same time, they suggest an arrangement of the interior which, for a library building of this size, constitutes a desirable innovation—viz., the use of the available space in order to obtain one spacious, well-lighted reading-room. The usual plan has been to make the doorway enter upon a lobby, with a small reading-room on each side; but in the Maxwell library



THE BATHING PAVILION.

Richmond Beach Park, Staten Island.

Chas. A. Platt, Architect.

one enters immediately into a handsome domed room, of sufficient dimensions to render possible an effective architectural and color treatment. The necessary division between the general readingroom and that intended for children is obtained by the placing of a screen at one end, after the manner of the old English halls.

VI.

Early in this paper I mentioned the consistency of Mr. Platt's work, as one of its marked characteristics—a consistency that has been brought about both by the careful personal study, which he has bestowed upon his designs, and by an insistent temperamental demand for a quality in style which may be best described as the classic quality. The use of this phrase in relation to Mr. Platt's work is, however, open to misinterpretation, because the classic

quality means a very different quality to different people; and to remove this ambiguity, the sense in which Mr. Platt's designs may be said to possess the classic quality must be carefully defined.

As applied to modern work the word "classic" has practically come to mean one or all of several methods of sacrificing architectural propriety and individuality to some kind of rigid and irrelevant formality of design. This use of the word has its justification in the character of most of the neo-classic buildings erected during the last century. The adoption by the architect, particularly the American architect, of the classic forms, has generally placed upon his imagination a charge which distinctly he could not afford to pay; and while this charge has not always left him bankrupt, it



THE MAXWELL MEMORIAL LIBRARY.

Rockville, Conn.

Chas. A. Platt, Architect.

has frequently left him artistically very poverty-stricken. Some architects have used the classic forms in order to obtain at any cost a grandiose and stately effect. Others have tried with much assiduity and care to avoid this pretentious and florid inconsequence, but have succeeded only in imparting a cold reticence to their buildings, and an inconspicuous refinement to the detail. It has seemed at times that the attempt, not merely to use the classic forms, but to obtain the classic quality, could not result at its best in anything better than an impersonal impeccability of design.

The consequence naturally is that in the minds of many people an antagonism has been created between any suggestion of classicism in architecture and the use of those styles which lend themselves more easily to free personal expression. The classical is





PERGOLA OF A CITY GARDEN.

Yondotega Club, Detroit, Mich.

identified with the unnatural and the inappropriate, while other styles which break freely into picturesque forms are supposed to possess the original personal and vernacular quality. The architect who purveys the classical thing is considered to have sacrificed his chances of individual expression to a lifeless architectural convention, which even if sincerely and intelligently adopted, condemns him to a mere frigid correctness of design.

It may be said in favor of this statement of the antagonism between the classical and the personal quality in architecture, that it is assuredly much easier to imprint a personal stamp upon the so-

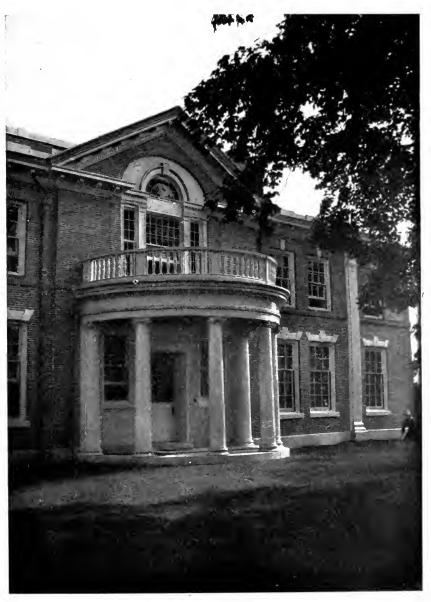


GARDEN OF THE YONDOTEGA CLUB.

Detroit, Mich.

Chas. A. Platt, Architect.

called freer architectural forms than upon those forms which have been derived directly or indirectly from classical antiquity; but although it is easier to handle the more fluid forms and although a smaller talent can use them without incurring the same heavier penalties in case of failure, it is absurd to identify the free use of these fluid forms exclusively with the personal quality in architectural design. If the personal quality is more conspicuous, when embodied in such forms, it is only because this quality is obtained under such conditions at a smaller cost. To give a personal note to a classical composition requires more careful study and a more



RESIDENCE OF FRANK CHENEY, JR.
South Manchester, Conn. Chas. A. Platt, Architect.

strictly architectural imagination, and, when achieved, the result, as we shall see, is of higher value.

Disregarding for the moment the relation between structure and design, the classic quality in design is, so far as appearance goes, the strictly architectural quality—the quality which makes for completeness of form. It is an utterly different thing from the impersonal impeccability of design, with which it is frequently identified. Every architect who has been thoroughly trained should understand the value of the different elements which make up an architectural composition—the value of mass, of proportion, of scale,



Residence of Frank Cheney, Jr. South Manchester, Conn. Chas. A. Platt, Architect.

and of light and shade. Such understanding goes to the making of the classic quality in style; but an additional gift is needed which is nevertheless the whole thing. This additional gift may be defined as the ability completely to compose these elements—to give measare and balance to the whole design, so that every part of the building, every condition of its use and site will contribute to a single, consistent and appropriate effect. This quality is in a sense independent of the models from which the actual forms are borrowed. It may be as present in a Jacobean manor house as in an Italian palace. While an architect may and should have his well-founded preferences, the most important point is not that certain special forms should be used, but that the strictly architectural merit of complete form should be resident in the building and should be the constructive influence—dominating expression, materials, proportions and style.

Of course, this classic quality in design is not the whole thing. It is the quality, which rather helps an architect to work out an idea than helps him to originate one; but it is no paradox to say that at the present stage of American architectural development the man, who can work out good architectural ideas with success plays a more useful part than the man, who has more originality but less power of patiently achieving the full effect of his conception. Every successful solution of an architectural problem must be the result of some power of original vision, because every architectural problem



RESIDENCE OF FRANK CHENEY, JR.

South Manchester, Conn.

Chas. A. Platt, Architect.

has to satisfy peculiar conditions; but as long as an American architect is sufficiently flexible in his working ideas to meet a new problem with a new solution, he need not bother himself about any other kind of originality. His effort and purpose should rather be to develop most conscientiously the ideas of which he is possessed and the forms which he has mastered, so that his buildings will possess the quality of technical completeness—of formal perfection.

Mr. Platt's work embodies this ideal of technical completness and formal perfection to a very unusual extent. The exhaustive personal consideration which every problem submitted to him receives, and his distinct gift for the proprieties of form stamp his designs with a certain individual elegance of style. That Mr. Platt's work should have assumed this character is all the more remark-

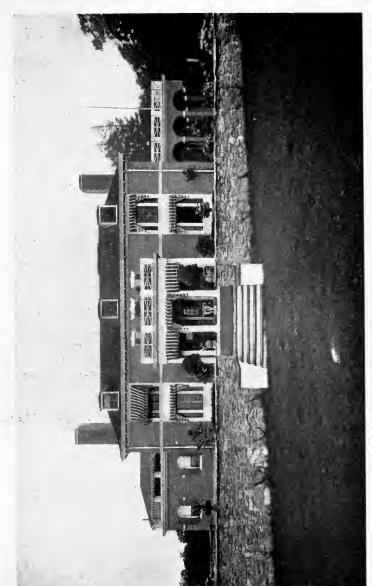
able, because Mr. Platt started his work as a painter of landscapes, and would naturally, it might be supposed, have had a leaning towards picturesque as compared to formal design. But just as he was too well-informed a painter to seek for picturesque landscapes, so he is too well-informed an architect not to discern the artificiality of merely picturesque houses. The picturesque idea is not pictorial; it is not architectural; it is literary. In its own way it pro-



STAIRWAY IN THE RESIDENCE OF FRANK CHENEY, JR.
South Manchester, Conn. Chas. A. Platt, Architect.

duces as much architectural impropriety as does the most frigid classicism. There can be no propriety of form, and not very much real individuality of style without the formal completeness and consistency, which I have described as the classic quality in design.

The peculiar value then of Mr. Platt's work consists of this union of completeness of form with propriety of effect. At a time when much conscientious architectural designing is spoiled by irrelevant



Chas. A. Platt, Architect. "NORTH FARM," THE RESIDENCE OF HOWARD L. CLARK.

Bristol, R. I.

ideas and an erroneous point of departure, he stands for the thoroughgoing and successful application of pertinent ideas. The great need of American architecture is not individuality but style—the style that comes from the sympathetic use of the most appropriate historic models. For without this general sense of style, it will be impossible to establish a good tradition of form; and in the absence of such a tradition of form architectural design cannot escape from an anarchy of invention and imitation, which does and will sterilize so much well-intentioned effort. This general sense of style



"NORTH FARM," THE RESIDENCE OF HOWARD L. CLARK.

Bristol, R. I. Chas. A. Platt, Architect

is both communicable and constructive. It constitutes good types with which people can become familiar, and which become established as standards in the popular mind. The more familiar, and consequently, the less numerous these types are, the better; and the individual architect should voluntary submit to the limitation of such established types, so that both he and his clients may have the guidance of a local architectural tradition. Since the best work in architecture cannot be accomplished, unless such types can be taken for granted, an architect, who, like Mr. Platt, persistently and successfully endeavors to domesticate a thoroughly good type is making a valuable contribution to American architectural progress.

Herbert Croly.

THE PARIS HOTEL DE VILLE.

HE history of the Hotel de Ville is the history of Paris. Its origin and the first feeble attempts at municipal organization are lost in the stormy, illiterate days of the Middle Ages, in so far as written records are concerned; for little more than remote traditions of the infancy of ancient Lutetia can now be found in the old chronicles. Still, at the time of Roman supremacy, when the Thermes of Julian flourished, of which some traces remain at the Musée de Cluny, when Roman Lutetia was covered with temples and statues of the gods of Mythology, a municipal building existed for the assemblies of those ancient councillors; but the exact spot where it stood has long been forgotten. Under the Frankish kings such an edifice also existed for the meetings of the Ediles. Ages ago Germain de Brice wrote as follows: "The Hotel de Ville of Paris stood at a remote period in the Isle du Palais beside the river; some remains of this ancient structure were formerly visible in the Rue d'Enfer (long since disappeared) near to the Church of Notre Dame, which shows that it was not important; so another site had to be found."

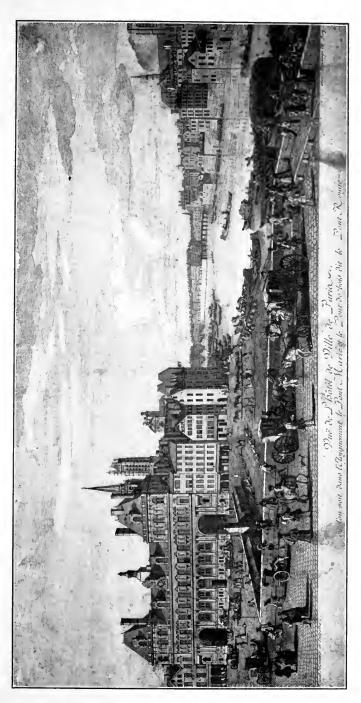
It is also unknown at what exact date this first "Parloir des Bourgeois" was replaced by another house that was selected in the St. Jaques quarter near to the monastery of the Jacobins, which was formerly situated there. But as the tide of civic and commercial life flowed to the right bank of the Seine, the "Parloir des Bourgeois" was compelled to be "in the movement," as the French say. The old home of the burgesses in the Rue des Grès was abandoned, and a new place of assembly was established in the Valée de Misère, near to the Great Châtelet, and close to the whilom little church dedicated to St. Leuffroi. At last, in the year 1357, the "Prèvôt des Marchands," Etienne Marcel, acquired a building in the name of the city, situated on the Place de Grève. It was known as the "Maison des Piliers." This house was transformed into the new "Parloir des Bourgeois." Nevertheless, it became, ere long, insufficient for the requirements of the civic dignitaries of that period, for less than two centuries afterwards—in 1529—the municipal corporation obtained leave from Francis I. to buy several neighboring houses in order to enlarge the city hall.

On July 15th, 1553, the first stone was laid of the building that was henceforth to be called the Hotel de Ville, and which has survived until recently, notwithstanding many additions and enlargements. Operations of reconstruction were carried on from 1837 to 1846, but still the principal façade and the two-pavilions

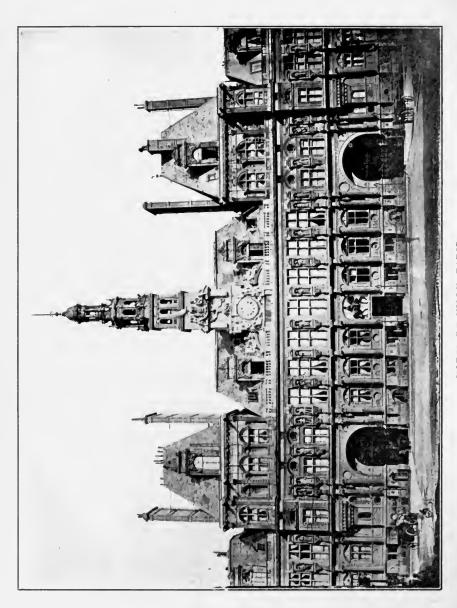
were preserved.



THE OLD HOTEL DE VILLE, PARIS. (From an old print.)



THE OLD HOTEL DE VILLE, PARIS. (From an old print.)





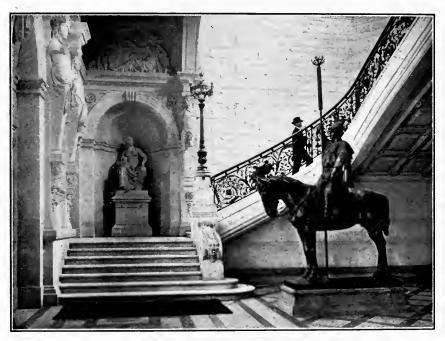


The Place de Grève was the forum of the Parisians, for here Marcel, the famous "Prévôt des Marchands," harranged the people, and Charles the Bad and the Regent, later Charles V., came at times to excite the passions of the populace. In those early days there stood an old stone cross on the Quai Pelletier, bordering the Place de Grève. Before this cross prisoners who had been condemned to death, knelt and said their prayers before being executed. Heretics, Huguenots, supposed sorcerers and sorceresses, and criminals—among them the famous Cartouche—suffered death there in hundreds. During the Revolution the guillotine daily claimed victims.

The law of the 28th Pluviose, An. VIII. (1799), brought into the hands of the Prefect of the Seine the administration of the Department of the City of Paris, with an exceptional organization made complete by a general council and municipal council. In proposing the amount required for the reconstruction of the Hotel de Ville after the war of 1870-71, a writer remarked: "This great organization for the government of Paris should be reflected in the magnificence and grandeur of the edifice."

It would be impossible in the space at my disposal to enter fully into the details of the architecture and decoration of the seat of the government of Paris before its destruction during those terrible days in May, 1871—the closing hours of the Commune. I can remember, though a mere child at that time, the death struggle in the streets of Paris between the remnants of the insurgents fighting at bay behind their barricades against the overflowing tide of the columns of the Versailles troops. I can hear once more the roll of the drums and at times a bugle call as the soldiers pressed on from street to boulevard. Now and then the patter of musketry told that the "Fédéres" were still holding out in some of the central parts of old Paris, and when night fell a ghastly glimmer lighted the shroud of darkness that hung like a pall, mingled with the smoke of battle, over the dead strewing the thoroughfares of the fated city. It was their funeral pyre. The light grew in intensity until the majestic capital stood forth clearly in the glare of the conflagration like an unearthly vision. Petroleum, like "Greek fire" of old, had done its terrible work of destruction. The flames rolled onwards before the night breeze like the waves of the ocean, and leaping fitfully upwards in angry tongues of fire scattered cascades of sparks and embers. The waters of the Seine seemed turned by the reflection of the appalling scene into molten gold, and the greatest edifices of Paris burnt on throughout that night like torches. When all was over, nothing remained of many of these structures but their skeletons, while others lay in heaps of ruins. Of the Hotel de Ville there survived only the outside walls, scathed and calcined by fire, but too massive in their solid masonry to fall. Such was the fate of the Hotel de Ville, the embodiment of the history and traditions of the city.

It would evidently be beyond the scope of a magazine article to write a full description of the art-treasures, the mural decorations, statues, and frescoes and other ornamentations of the former home of the ediles of the city before 1871. The richness of the interior was very remarkable; and a passing notice may be given of the allegorical ceilings by Ingres, the frescoes of Vaucheter, and the masterly work of Delacroix. This magnificent



HOTEL DE VILLE, PARIS.
(Staircase leading to the Prefect's departments.)

ceiling—in the painter's best style—represented Peace—à female figure reclining upon clouds, and watching the return of Plenty, accompanied by a procession of the Muses. The "Salon de l'Empereur" was a sumptuous hall richly decorated and devoted to the glorification of the Empire with, among others, a celebrated mural painting showing the Great Napoleon, figuratively, leaving St. Helena, and rising above the clouds to immortality. Of the numerous statues by noted masters to perpetuate the memory of distinguished citizens of Paris, only a few can be recalled. There is a long list, beginning with the great tribune of the people, Etienne Marcel, and descending almost to the present time: Jean Goujon,



THE GRAND STAIRCASE. HOTEL DE VILLE, PARIS.

the sixteenth century sculptor, the disciple of Michael Angelo; Boileau, Molière, La Reynie, the lieutenant of Louis XIV.; Voltaire, Condorcet, the Abbê de l'Epée, and Levoisier, such are a few of the names selected from many. A number of these statues were restored, others replaced on the rebuilding of the edifice after the Commune. The work began about 1873, after several plans had been discussed, and the new Hotel de Ville was completed on a scale of greater magnificence than ever, for the ceremony of inauguration took place only in 1882. It is constructed in the style of the Renaissance, and the architecture is very rich and ornamental. This palatial structure is rectangular in form, with four



HOTEL DE VILLE, PARIS-MUNICIPAL COUNCIL CHAMBER.

façades facing respectively the Place de l'Hotel de Ville, the Rue de Rivoli, the Place Lobau, and the quay on the Seine. In the gardens opposite the apartments of M. de Selves, the Prefect of the Seine, there stands an interesting bronze statue of Etienne Marcel; while the three courts, ornamented with the statues of Parisian celebrities present a striking and beautiful appearance.

Note the admirable entrance and staircase with equestrian statue leading to the official apartments of that high state functionary; then the Cabinet of the Prefect, with its paintings, its crystal candelabrum and carved ceiling. The Salle des Séances or the Assembly Room, with the President's raised seat, the orators' tribune, and the



HOTEL DE VILLE, PARIS-SALLE HENRI IV.

This apartment contains a ceiling by Bonnat, and ceilings by Besnard and Jules Lefevre; also numerous panels on the wall by Buland, Berton, Layrand, Robert Fleury, Francais Pierre Vauthler, etc.



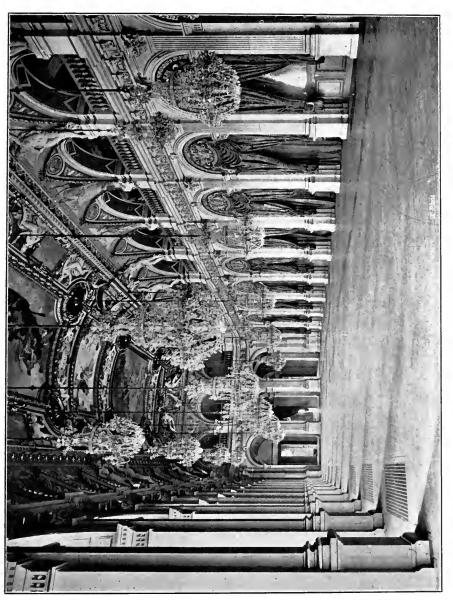
MANTELPIECE IN THE SALON DES SCIENCES, HOTEL DE VILLE.



The frescoes shown are by Jean Paul Laurens. The fresco to the left represents Louis VI. granting to the Parisians their first charter in 1108; the center fresco, Etienne Marcel saving the life of the Regent, January, 1338; HOTEL DE VILLE, PARIS-SALLE JEAN PAUL LAURENS.

hebanding of Iron Decembrack and claven nables in 1384





richly carved ceiling will interest the visitor, for here the councillors of Paris assemble with their President, the meetings often being lively and the discussions stormy. The library is more austere in decoration; but the Cabinet of the President of the Council General, with pictures and draperies and the handsome Empire writing-table, is certainly an elegant and comfortable retreat for that dignitary. The top of the staircase leading to the apartment of the Prefect, the marble steps, the finely ornamental balustrade, the pillars, carvings and statues, ensconced in niches, are most rich in ornament



HOTEL DE VILLE, PARIS-THE VESTIBULE.

and very imposing. The Salle des Prévots with its rows of colonnades might be thought almost oriental in inspiration with its arabesques, the delicate tracery of Moorish architecture, such as may be seen at the Alhambra at Grenada, with its light, airy aspect. But, perhaps, the Hotel de Ville at night is the most effective, nay wonderful sight; when one of those brilliant and gorgeous balls are given in the magnificent Salle des Fêtes, on the first floor, facing the Place Lobau. On these occasions (a reception or a ball) many of the notabilities of the city are present with their families, for these entertainments are on a vast scale, sometimes several thousand persons being invited. To witness the procession of carriages drive up to the main entrance; and the spectacle of the

toilettes, the decorations, the uniforms, the staircase covered by the moving throng, the brilliant illumination of the entire building is a sight long to be remembered.

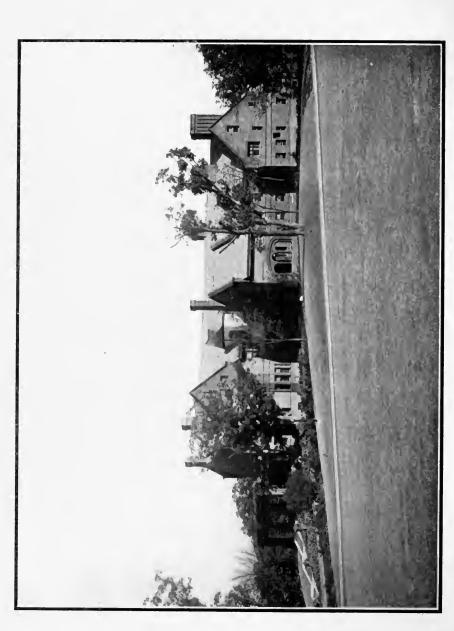
A few words in conclusion. When the Roman Catholic Church, representing the Royalists of France, decided to build on the heights of Montmartre, a magnificent cathedral, and poured its millions (out of the pockets of the poor, for the most part) into the fund for the erection of the Sacre-Coeur, now towering over the city like a menace to the New Republic the Republicans of Paris



HOTEL DE VILLE-THE LIBRARY.

built their fine city hall. Situated on the spot where the most revolutionary events took place, it is, in a manner, a rival building to the collosal structure on Montmartre. The Republicans of Paris in having their seat of Government decorated by such artists as Detaille and Willette and Cheret intend to make the Hotel de Ville to Parisians what Versailles was to the Royalists.

J. D'Arcy Morrell.



EXTERIOR OF "LORAMOOR."

"LORAMOOR," ESTATE OF JAS. HOBART MOORE, ESQ., LAKE GENEVA, WISCONSIN.

In discussing country houses and measuring their merits, a special attitude must be assumed in judging them. It is special because in criticizing other types of building, we do not find so prominent the one element which enters largely into the problem of the country house. There are, of course, buildings of a very different nature from the domestic of which we are speaking, that press very similar points for solution, but the methods pursued in solving them differ widely, which leaves them out of our present argument. Broadly considering the matter and arriving at the main point directly, it is plain that unlike other buildings, a country house demands of the architect the consideration of something more than strictly architectural conditions.

The architect is shown a plot of ground in the country whereon his client desires a dwelling erected for the purpose of living during the summer months, and of having at all times a place to retreat for rest and recreation. This primary reason of his client's desire to build a house, the desire to get away from the restrictions of city life, should be the guiding note of the architect's efforts. That there should be few reminders of city conditions embodied in the establishments built in the country is only the fulfillment of the very important law of fitness, as fundamental in architecture as it is in everything else. Of all things, the particular question of propriety in design relative to existing and proposed environment, applies here with doubled force. The right-minded architect will readily recognize this supreme necessity, because he himself feels it. It is a thing characteristic of the problem connected with the building of country establishments, in that it offers the architect an unusual latitude for expression. It does not confine him strictly to architectural considerations, but in addition it gives him a chance to show his appreciation of the picturesque. This opportunity thrills him, perhaps, to an extent that may be paralleled in the emotions of a painter upon viewing a beautiful subject for a landscape composition. He should not allow his architectural lore to emasculate his original picturesqueness of conception. If he does so it may be because he is insensible to the true motive of all art, or perhaps, because he has been over-educated. Excessive knowledge of architectural history may be responsible for the great number of stereotyped buildings that are built now-a-days. There is too much "Academy" architecture; too much so-called "Classic" that is indiscriminately stuck everywhere regardless of conditions; too much school and too little individualism; too much tradition and not enough originality; too much of the profession and not enough of the man. If the poetical spirit is driven out of architecture by commercialism in the city, there is still, happily, enough of it possible in this interesting subject of building country houses; and the architect of a constitution susceptible to the impressions, which the very nature of such problems must give and necessarily impel him to regard in his work, is certainly to be congratulated, for he is then an artist.

To be less speculative let us turn to a comparison. An object



THE PIAZZA OF "LORAMOOR."

The estate of J. H. Moore, at Lake Geneva, Wisconsin.

Jarvis Hunt, Architect.

lesson of unusual force on the question of right attitude towards the problem was afforded the writer in a recent visit to Lake Geneva in Wisconsin. One of the houses, figuring in the issue is "Loramoor" which we are presently to describe, and the other is a conspicuous classic dwelling in the same neighborhood. Strangely enough these two houses are alone among the many in this district in their pretentions to architectural merit. The two drawn into comparison cannot fail to impress the beholder that Mr. Hunt, the architect of "Loramoor," designed his building with a spirit much more appropriate that that displayed in the other extremely formal and academic house. We can note immediately how the one architect

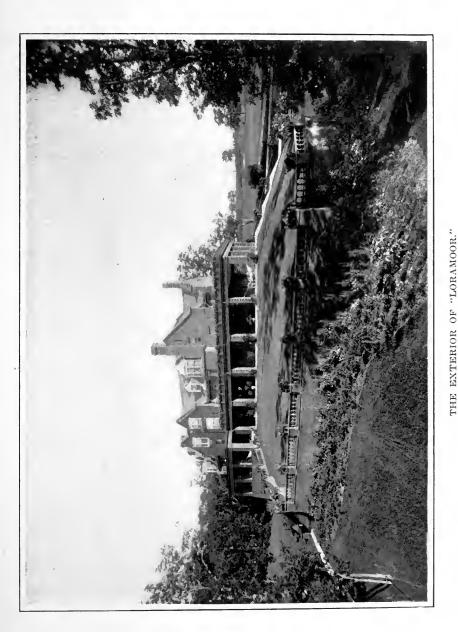
carefully considered what his trust meant and how accurately he surveyed the whole situation, while the other seems to have set at naught all regard for the site of his building, with the result that we find a cold-looking, severely uncongenial design staring out from the east shore, like a figure of pride disdaining the sympathy which it cannot get. Credit may be due to the architect, for a clean-cut piece of interesting stone work, but none is certainly due him for the manner in which he handled the problem intrusted to him. the house stood upon some level tract of country, with a broad expanse of green on all sides, affording a ground for formal gardens and broad terraces, the house would appear to better advantage. The lines of the house, contemplated alone, are not bad; its size is generous, perhaps impressive, but it is totally out of harmony with the natural wealth of the country, on the shores of this beautiful lake. This law of fitness, which involves the relationship of buildings with their environment, will not bear violations, except they be tempered with the subtle art, like the Italian palaces.

"At Loramoor" we see how frankly and earnestly the architect set to work to add telling strokes, as it were, to an already interesting picture, making it virile and human; and should it be asked, if a man can be a poet with bricks, mortar and tile; if he can express his regard for the beautiful fully as deeply through the medium of his workers in these materials as a man can through the offices of verse and music; if he can in wielding these bulky mediums tell a story as effectively as a painter with his brush, a response strongly to the affirmative will come from the collection of buildings, comprising the estate of Mr. Jas. Hobert Moore on the south shore. Arriving at the gate lodge, which is most picturesque, with a quaint and appropriate symbolism of wide open arms, suggested by its peculiar shape and plan; the view of the whole grounds produces a sensation in the beholder that would scarcely be felt if the buildings had not so much of earnest sympathy with their surroundings. They are one with each other, and all together one with the whole spirit of the lake. These buildings form a unique family, and the term "family" is easily appropriate, since their consistency is very striking. All three are more or less alike, the same materials entering into the composition of them all, and there are solid reasons for their being designed as they are, particularly the house and the stable. If time and space permitted, the writer would be tempted (for the purpose of convincing our radical contemporaries) to give certain views on the subject of originality in design, and its true meaning, but as a limit is set, the pictures alone must show how much stronger is the conservatism of the buildings at "Loramoor," contrasted with those architectural contortions of that school of radical reform, whose aim appears rather to be eccen-



THE LODGE AT "LORAMOOR."

Jarvis Hunt, Architect.



tricity than beauty. "Loramoor" is a work representing uncommonly a sane originality of thought; a work that is permeated through with the individuality of its architect; and although he drew his inspiration from that period in England when her architecture was undergoing a transition from the old or Gothic to the new or Renaissance, it is impossible to deprive him of his title to originality. Though candidly reflecting the Elizabethan spirit, almost to a degree that would lead one to think it bodily transplanted from England, it will always remain the result of brilliant original thought. The form of the building, its carefully studied color



STAIRWAY AT "LORAMOOR."

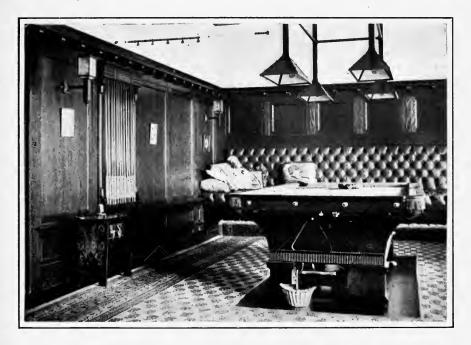
The estate of J. H. Moore, at Lake Geneva, Wisconsin.

Jarvis Hunt, Architect.

values, its cleverly conceived roof lines, all testify admirably to original effort.

Specific description of the house seems scarcely necessary in view of the photographs reproduced with this article, but a few points about it may be interesting to know, and will aid the reader in understanding the whys and wherefores of certain peculiarities in the design, among which the most notable and the first perhaps to attract attention is the form of the plan. The V-shape was adopted, because it met the conditions of the problem best. Located on the south shore of the lake, the house, to face the water, would naturally obtain an undesirable exposure to the north; so that, as a compromise between giving the best, if not all the rooms,

a prospect out onto the lake; the benefit of the sun for as many hours of the day as possible, and the advantage of the best direction for breezes, the V-form of plan, very obtuse in its angle, was found available. As the house has been located to assist the plan in obtaining these advantages, the result is that every room in the house, from the living room in the first story to the servants' rooms in the third, is afforded a view of the lake. The sun cheers the living room, which is in the west wing, all day long, and the diningroom, which is in the east wing, secures it at breakfast time and again at dinner; and as for the rooms upstairs, they all get a sunny



THE BILLIARD ROOM OF "LORAMOOR."

The estate of J. H. Moore, at Lake Geneva, Wisconsin.

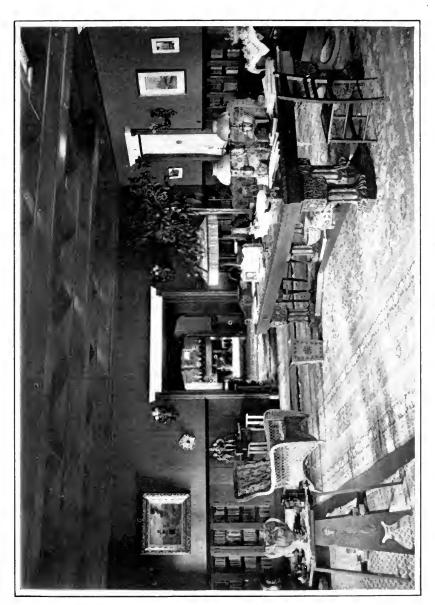
Jarvis Hunt, Architect.

exposure, especially those over the living room. The arrangements in the plan for securing every available breeze for each room have also met with great success. Such a plan, too, afforded opportunities for a design of unusual interest, as the photographs amply show; and let the reader supplement them by picturing to himself the pleasing color values that exist in the brick surfaces and the white plaster bays against them; and the quaint dormers against a background of a soft, variegating gray green shingle tile, and these together, in their quiet harmony, with the tones of the natural foliage around the house. The architect availed himself of the fine quality of texture and color in the rainwashed brick, and laid them

Jarvis Hunt, Architect.



THE DINING-ROOM OF "LORAMOOR."



"THE LIVING-ROOM OF "LORAMOOR." The estate of J. H. Moore, at Lake Geneva, Wisconsin.



MANTELPIECE IN THE LIVING-ROOM AT "LORAMOOR." The estate of J. H. Moore, at Lake Geneva, Wisconsin.



THE STABLE AT "LORAMOOR." Estate of J. H. Moore, at Lake Geneva, Wisconsin.

Jarvis Hunt, Architect.

up in thick and deeply raked out mortar joints, making a surface presenting a beautiful tone between the variegations of soft grays, quiet blues and dull reds. The effect is extremely picturesque; and not a small part of this pleasant effect is due to the soft lines everywhere apparent in the composition. A novel and quaint feature, perhaps more evident in the Gate lodge than here in the house, is the careful study made of the roof. All ridges, gable ends, hips and valleys are tempered with a curve so that the dormers and gables appear to grow naturally out of the roof. Ordinarily, the roof of a house is thought of no more than that it is a lid, but at "Loramoor" the architect perceived the necessity of careful study of this feature, owing to the fact that the main road leading to the estate is on a high ridge, and that upon approaching, the roofs of the buildings are the first to appear in sight. This fact can be seen in the photograph of the stable, which is taken from this road and which gives almost a bird's-eve view of the arena.

It would require more space than the editor can allot to describe adequately the interior of this interesting house, which is treated in Mr. Hunt's characteristic style. Here, again, is that individuality as prominent as it is where we first view it, upon entering the grounds. Perhaps there are more carvings and mouldings in this house than Mr. Hunt usually likes, but they are used with quiet restraint, subdued in all places by his happy faculty for making things simple. Color, texture, grain, the inherent beauty of the material, are first in his respect. In the hall, however, we find him using Gothic quite freely. This hall is large and of grand proportions, done in quarter-sawed oak and stained black; the walls are of rough plaster, stained in an ox-blood color, which funereal ground is amply enlivened by treating the heavy stair balusters in white enamel. This contrast, as strong as can be made between two colors, may strike one as jarring, but this is a mistake that would be fully realized if one should see the hall itself. At any rate, this study in black and white did not frighten the architect, for we notice that this same idea is introduced in the living room, but with less success, and again in the dining-room where, however, the light and shade are concentrated, as shall be described. Its use in the living room, one feels, is not quite as appropriate as in the hall. and although very much unlike Mr. Hunt, it appears more like an architectural whim. But there are so few of these light spots, that they do not detract from-if they do not add to-the attractiveness of the room, which is also done in oak and stained a mouse gray. The walls are hung with a pale red tapestry. The whole room, in fact the whole interior, is characterized by an exceedingly attractive simplicity. The mantel-piece in the nook of this room, simple as it is, is worth considering because its treatment is typical

of the Hunt idea. The breast is ten feet wide, and only consists of a plain shelf with brackets supporting it, but the claim to a high credit is found in the handsome piece of wood above, the surface of which is unbroken except for a shield carved in the center. Not only is this a skillful piece of cabinet work, but one of considerable artistic merit, since the grain is so matched as to make it appear like one beautiful piece of oak.

Returning through the hall, from the living room, a peep to the left shows the billiard room and the den, interesting rooms and highly panelled; but a greater attraction draws one to the diningroom. Fortunately, our photograph shows the room as Mr. Hunt had orginally decorated it. Note the simplicity. It is square and panelled in a unique fashion about a third way up; above this is hung, leather of iridescent green, and then above that is a cove losing itself in the ceiling. The panelling is of oak, of beautiful grain; was stained a quiet green originally and the carving of a floral motive was still further relieved by a slight illumination, producing a delightfully original effect; but through a sacrilege, instigated by a supposed necessity, the whole of the woodwork was covered with a white enamel paint, destroying what was the most interesting room in the house. There is a serving room which contains the serving table and cupboards arranged as a feature of the dining-room, that was white enamel, in contrast with the dark of the original scheme in the dining-room proper, but now this pleasant contrast is reduced to a monotony which all white enamel rooms exhibit unless they are rich in ornamentation or refinement of some kind. The photographs of the bed chambers are typical of the purpose of the entire second story. They are all simple, white in finish and decorated in cool colors and interestingly furnished with good oldfashioned furniture.

It is needless to say that no expense has been spared to make a good house, which has been done, both in respect to its construction and its artistic treatment. The house is built of steel and masonry and is fireproof. In this light it is interesting to speculate on the fact that what history the place will have ten or so generations from now will only add to the spirit of romance it even now seems to reveal.

Charles Bohasseck.



THE SINGER BUILDING AS COMPLETED.

Nos. 561-563 Broadway, New York City. Ernest Flagg, Architect.

A RATIONAL SKYSCRAPER.

IN the December number of this magazine, the designers of the new Blair Building, recently completed in New York City, on the northwest corner of Broad street and Exchange place, were praised for an act of deliberate abstention from irrelevancy. In designing their facade they adopted the novel scheme of a palpable decorative screen in place of adhering to the usual semblance of a strictly masonry front. The design itself, no doubt, was managed with skill, even with consummate skill, but then, notable as the building might be from that point of view, excellence of that kind alone would hardly be sufficient to give it pre-eminence among all skyscrapers recently erected, for no one will say skill of composition, ability to put together on Bristol board tasteful and harmonious arrangements of time-honored architectural forms is so rare with us as it was a few years ago. In literature, the "diffusion of penmanship" has been bewailed by Henry James, but in architecture no one complains because draughtsmanship and "good taste"—the negative discipline—have become general commodities. No! The great deficiency does not lie in that direction! The difficulty is not to get speakers, but to find somebody who has something of import to say.

Many designers, among the number possibly the designers themselves of the very clever Blair Building, will disagree with this philosophy, and with its implication that there is anything finer than good design, always meaning by that phrase, design at the surface, the putting of architectural things together—columns, arcades, mouldings and what not—"a string of epithets that improve the sound without carrying on the sense"—in an essentially pictorial way, to please the eye without reference to the reason. That, at any rate, has been the method that has ruled in the past, almost without exception, in the making of the skyscraper, and it is, in the judgment of a few, the very persistent adherance to that method by the entire profession that has vitiated all attempts to deal fundamentally (and in essence that means artistically) with the problem presented by the high building.

The "problem of the skyscraper" indeed! Who is there among our architects that has had courage, we will not say to squarely face it and strive with it, but even to seriously think about it? Is there any wonder that whenever the subject comes uppermost, at convention, or meeting, or elsewhere, among two or among a hundred, there is inevitably in a short time a shrugging of shoulders and finally a dismissal of the matter as one of the impossibilities of life—or shall we say the impertinencies of the client? Throw it out of window! That ends it! And possibly by and by it will

be placed in the list of subjects tabooed in good professional society, like ventilation and acoustics and government architecture, Perhaps our architects think as Sancho Panza did, "Recommend the matter to Providence; 'twill be sure to give what is most expedient for thee."

A few have protested, not, indeed, believing that the skyscraper, with its bald utilitarian purposes and its fixed 5% "projet" affords the artistic soul the highest empyeran for flight, but nevertheless convinced that Art cannot fail before any problem that may properly be assigned to its beneficence without at the same time losing its ultimate authority in human affairs, and preferring, therefore, to believe that, in the case of the skyscraper, the artist, rather than the Art, is at fault—at least believing so until the architect has applied himself to the problem with great veracity than the scene-painter's, and with more seriousness than the modiste's.

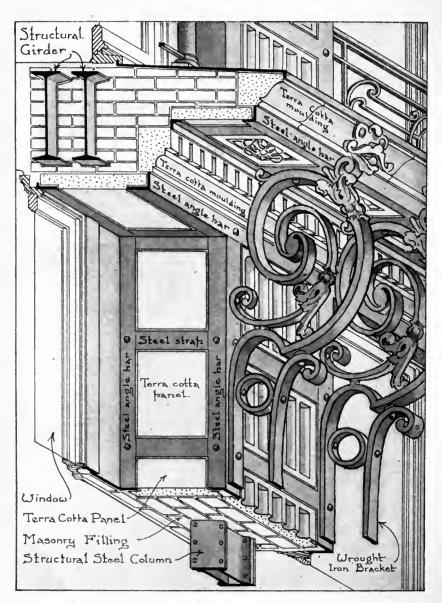
But these were the critics! They preached of function and logic, of reason, veracity and thought. What have these to do with architecture? Why! has not the aim of the architect for four hundred years been to get rid of these incubi, to cleanse the Art of its heavier particles, and make it, as it were, fit for the emasculated energy of the dilettante, or the quick purposes of the architectural shop?

And if the critics, the protestants, have been few, how much smaller, alas! is the band of those who have labored at the high building problem with any sincerity of soul, sad or otherwise? So far as the skeleton building is concerned, Louis Sullivan is perhaps the only architect of marked ability who has addressed himself deliberately and sincerely to the discovery of an adequate expression in architectural terms for the metallic frame. The Prudential Building in Buffalo, N. Y., the Wainwright Building in St. Louis, and the Bayard Building on Bleecker street, New York City, are the most conspicuous results of his highly personal and thoroughly intelligent effort. If we are restrained by a sense of prose from the poetics of one of Mr. Sullivan's ardent admirers regarding the Bayard Building: "Rising thus cream-white, maidenlike and slender, luxuriant in life and joyous as the dawn of wistful spring, this poem of the modern world will ever daily hail the sun on high and the plodder below with its ceaseless song of hope, of joy, of the noble labor of man's hands, of the vast dignity and power of men's souls—a song of true democracy and its goal"; we are sure the judgment of the judicious is that Mr. Sullivan's work is very much superior in originality and force to any other productions of the same class. If the lyrics of his admirer are slightly too perfervid for the case, we trust they will at least faintly indicate the celebration that attends the successful solver of the problem of the skyscraper.

It may well be understood, therefore, that it is not the mere superficial design of the Blair Building, referred to at the outset of these remarks, extremely skilful though that design is, that called primarily for attention. The greater significance of that building lies in the fact that it announces, or at any rate, seems to announce, that one of our highest authorities in architectural practice, a firm particularly addicted to the "school" and the "traditions" have either by a deliberate concession to architectural veracity or from an effort to reduce architecture to a more direct expression—a "lower term," as the mathematicians say—of "pure design," contributed an important step to the task of bringing the tall building back to reason, to the logic of its own facts and functions. For, so long as the steel skeleton building simulates masonry, imitates a construction of strongly differentiated structural parts, progress beyond the limits of draughtsmanship and the copy-books is a sheer impossibility. It is, therefore, a great gain, as in the Blair Building, to get rid, and, moreover, to get rid with conspicuous success, of the masonry fiction. We may be confident that so notable a piece of work so generally acclaimed is bound to be a hint to others, and bring forth imitators, traducers even, and, may be, improvers. And once let us get set up in front of our skyscrapers frank facades, mere decorative front walls that neither express nor conceal the facts of structure, simulate nothing (but a real Art!) and what more natural and easy further step can be taken than to turn up one's artistic shirt-sleeves at last and buckle down to the hard work of making our tall buildings really say, or as Montgomery Schuyler said, sing something veracious about themselves?

And curiously, more than curiously, fortunately, as though to remove this anticipation of ours from the reproach of prophesy, the Blair Building was scarcely finished before the outer walls of a far more revolutionary structure arose to attract attention and, as it were, fulfill the promise of its predecessor, almost its contemporary.

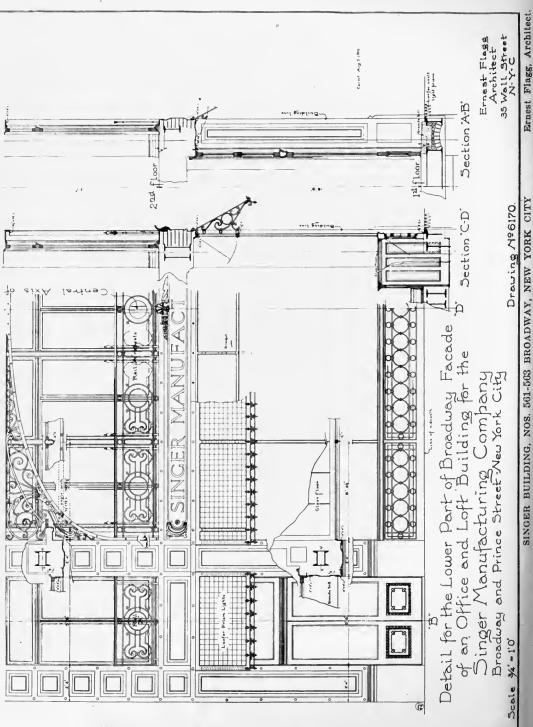
We refer to the Singer Building, situated at Nos. 561 and 563 Broadway, New York City, with a front adjacent on Prince street. Ernest Flagg, the architect of the New Naval Academy at Annapolis, is the designer; and here, again, we are called upon to note the curious and possibly significant fact that it is out of Nazareth that good cometh. Mr. Flagg is one of our notable "Beaux Artists." His activity and indubitable ability have been centered in the effort to import into this country the forms and ideas of current French architecture. Of importers of French modes, we perhaps have enough; but Mr. Flagg's distinction is that he has a clear insight into and a real appreciation of the French mental process of deal-



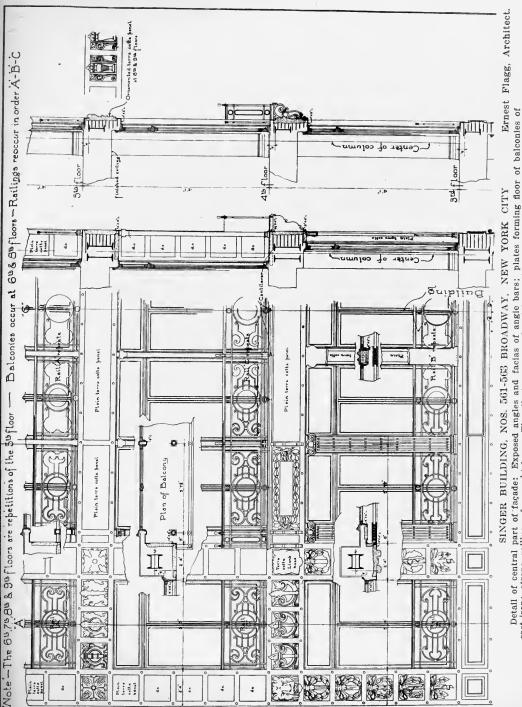
10SMETRIC DRAWING SHOWING DETAILS OF CONSTRUCTION.
Singer Building, Nos. 561-563 Broadway, New York City. Ernest Flagg, Architect.

ing with things architectural, its lucidity and directness. French forms to which he has hitherto been addicted may perhaps be regarded more as an accident of his French training than as the choice of a reasoned and thoroughly worked-out preference; at any rate, once the problem of the skyscraper was placed before him, he sought its solution directly on logical instead of traditional lines, relying rather upon the "principles" inculcated at the Ecole than upon any established set of patterns. For, in a sense, this Singer Building is Mr. Flagg's first skyscraper. The other Singer Building, lower down on Broadway, for which also he is responsible, is only ten stories high, and, moreover, it is, we believe, of real masonry construction. A story, we remember, was circulated at the time when this building was planned, to the effect that Mr. Flagg was under the bond of a vow, registered somewhere, that he would never "commit" a real skyscraper. Ten stories were his limit. Possibly he regarded the crime of designing a tall office building as one impossible to commit with artistic impunity. Certainly he was able to figure out to his own satisfaction that buildings higher than ten stories did not pay financially—they required protection as to light and air by the purchase of abutting property —that is, they became unremunerative as soon as every other pirate of air and sunlight committed similar excesses. It is true, the Bourne Building followed the Singer Building, adjacent to it, and this was carried up many stories beyond the limit of ten. But who can be consistent in a world composed of clients? The skyscraper problem would not "down" even in Mr. Flagg's office. We are afraid it will not be disposed of anywhere until it has either been solved artistically by the architect, or until its very existence has been legally banished by a more sensitive public sense of civic decency.

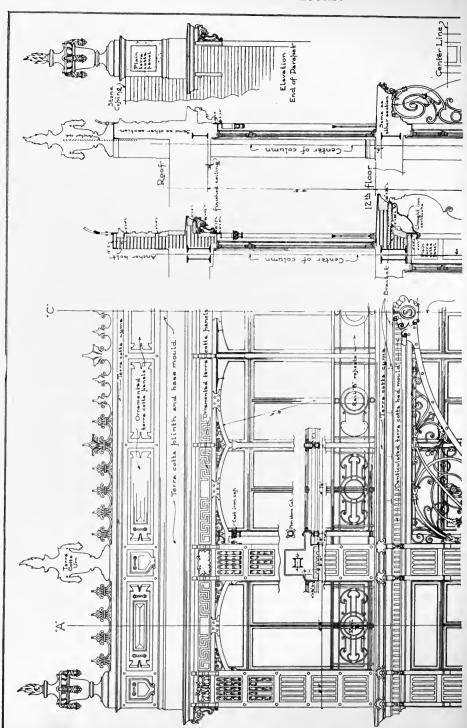
But if the architect cannot dispense with the skyscraper, the next best thing for him to do is really to grapple with it. Mr. Sullivan pursued that course with success, although he failed, as we see it, to strictly adhere to his own principle that form should follow function. The functionless arch crept into some of his designs, and some of the members of some of his buildings are only to be accounted for by a reference to "pure architecture." Mr. Flagg has perhaps been more thoroughgoing than Mr. Sullivan, for his design is a much more uncompromising attack upon the structuresque problem of the skyscraper. Traditional forms in the latest Singer Building have given way almost everywhere to structural expression. The architect clearly has endeavored to permit the structure to design itself, confining his own role as much as possible to making the structural features as good looking as lay within his power. His problem, as he understood it, was



Detail of lower part of façade. There is no exposed terra cotta on the lower stories, all exposed work being of iron. SINGER BUILDING, NOS. 561-563 BROADWAY, NEW YORK CITY



Detail of central part of façade: Exposed angles and facias of angle bars; plates forming floor of balconies of cast iron; straps, railings of wrought iron. The pilasters are made of bars of wrought iron, separated by balls; they stand free in front of the terra cotta panels behind them. Panels on face of piers and on jambs and soffits of window openings are filled with plates of terra cotta.



Ernest Flagg, Architect. Detail of upper part of façade: Exposed angles and facias of angle bars; plates covering upper surface of confices and colonetts of cast iron; creeting, straps, rails, consoles, scroll work of spandhils, wrought iron; urns, banels, bed mouldings, evma and soffit of corons of terra cotts. SINGER BUILDING, NOS. 561-563 BROADWAY, NEW YORK CITY

to protect a steel frame, provide all the light necessary in a building devoted to strictly commercial purposes, and to let the building tell its own story as agreeably as it might.

Our illustrations show clearly the details of how the task was actually performed. The steel frame, it will be seen, is covered with fire-resisting material, held in place by metal bands and straps; the steel columns do not masquerade as stone piers; the steel beams do not conceal themselves behind stone architraves; there are no classic columns, and Renaissance arcades, nor even does the metal itself, where visible, simulate in its proportions or profiles another material. The open spaces are filled with glass where glass is re-



PORTION OF BUILDING, SHOWING METHOD OF CONSTRUCTION.

Singer Building, No. 561-563 Broadway.

Ernest Flagg, Architect.

quired, and for the rest, the encasement consists of small terra cotta panels that reveal themselves between the metal framing or straps. Ornamentation is confined entirely to such expression as rightfully can be imparted to terra cotta and iron. The reader's attention is particularly directed to the isometric drawing, wherein is set forth very plainly the method adopted of filling in the panels of the iron latice-work which protects the angles with terra cotta slabs; also the plan used for constructing the cornices with angle irons for the angles of the corona, and for the slabs of enriched terra cotta for its soffits. The drawing also indicates the use of the terra cotta blocks for the cyma and for the bed mouldings, the brick

work which protects the columns and girders, the way in which the upper surfaces of the cornices and balconies are protected with iron plates, and also the nature of the wrought iron consoles which support the main cornice.

All this is very novel, very ingenous, highly thoughtful. Surely, no other architect has ever so frankly accepted the situation which the skyscraper presents and submitted it to so much real brain work. So much we must all acknowledge. So much is a great gain. So much is immensely creditable to the designer. Apart from Mr. Sullivan's experiments, here we have for the first time, a skyscraper on which a man may ponder, about which he may talk seriously, analyze and judge with the same respect that he may accord to a structure of the days when architecture was not a mere "mode" like the milliner's.

It is not to be expected that a building, the first attempt along such novel lines, should be entirely successful. It is enough for us and for the profession, and it should be immensely gratifying to the designer that his bold attempt must be acclaimed a pronounced success—an innovation which cannot possibly be disregarded in the future by his confreres. Even Roman architecture was not built in a day, and it had no intractable problem to handle like the skyscraper. Experimentation is necessary. Logic may deliver its conclusions in a day, but not so Art. Grace of line and justness of proportion are the result of a long-continued revelation, and of an inspiration persisting with and working through generations. But, one or the other, the revelation or the inspiration cannot be of substantial value unless derived from the actual structure; indeed, neither is a reality so long as its source is merely an academy or a set of copy-books. And this consideration brings us back again to our building and to the value of Mr. Flagg's notable achievement. H. W. Desmond.



TECHNICAL DEPARTMENT.

A NEW FRENCH INFLUENCE—HARDWARE.

A T the exhibition of the Architectural League in the Fine Arts Building on Fifty-seventh Street there stands a glass case containing some specimens of hardware, which the Art Department of Russell & Erwin Mfg. Co., of Three Hundred and Seven Fifth Avenue, New York City, placed there at the special request of those intrusted with the management of the exhibition.

The public interested in these annual exhibitions managed by our architects have come to regard them as being, in the main, professional displays, limited, in practice at least, to architects' designs or to pictures of those designs, supplemented incidentally—but only incidentally—by a few decorative schemes and by still fewer exhibits of perhaps a little plaster work or a little bit of mosaic, or still rarer, an occasional example of wrought metal work. This common idea of these exhibitions is in the main correct, and consequently, standing before this glass case containing the hardware, one can hardly avoid the question—"What significance is to be attached to this departure?"

Several answers suggest themselves immediately. It might be said: "This hardware exhibition is here on account of its extraordinary artistic excellence; or it might be said (particularly as this exhibit is French in origin) that our architects, deploring the existing insufficiencies of American hardware in the matter of design and finish, invited the Russell & Erwin Mfg. Company to make this display—"Pour encourager les autres," or the matter might be put in this way—our architects recognize the immense improvement that has been made in the design and manufacture of hardware during the last fifteen or twenty years, and seeing that it has now reached the full dignity of an artistic craft, wish to signalize the fact by associating with their own exhibits an exhibit of the very finest hardware that is now available for their use; or, finally, it



ESPAGNOLETTE.

might be said that this exhibition of hardware is due to the fact that the profession, satisfied with American hardware upon every point but that of design and finish, wish from an educational point of view to set forth the highest standard of work that exists to-day, and, as the highest standards in these matters prevail in France, the profession deemed it wise to call upon the Russell & Erwin Company for examples of the work of the great modern French craftsmen, which that company to-day controls so far as the United States is concerned.

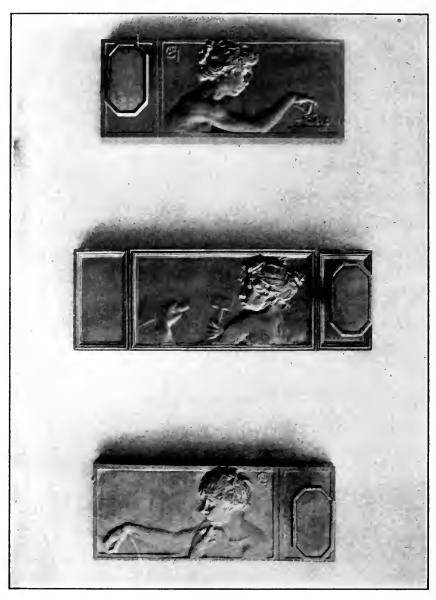
There is probably some truth in each of these views. France to-day is far in advance of other nations in the decorative arts, and French hardware, in the matter of design and finish, is incomparably finer than any domestic product obtainable in the United States or in any other country but France. This statement does not in any sense discount the immense progress that has been made in American hardware during the last twenty years or depreciate the high character of the product Indeed, if any man to-day. wants to realize how great the progress has been he has only to turn to the crude, inappropriate metal fittings that were the best at the disposal of an American citizen of taste anywhere in the "seventies." Prior to 1870 hardware had about the same value artistically that a



ESPAGNOLETTE.

cast-iron stove had, and in our costly houses of that time, hinges and doorknobs and escutcheons were perforce usually perfectly plain. The first faint dawn of the better thing occurred in 1870, when the Russell & Erwin Manufacturing Company commenced to employ trained designers possessing some ideas of function, material and process and some training in the art of design. The Centennial Exposition of 1876 forwarded this move towards artistic craftsmanship, and a few years later all the great hardware concerns of the United States were working to bring their product into some conformity with the standards of taste and the standards of design that prevailed in the offices of the best architects.

It was quite natural that at first the co-operation of the hardware manufacturer with the architect should be on the most general lines only; that is, if the architectural profession was at any moment chiefly interested in the Gothic Style, then the hardware would conform to that style, or, at any rate, attempt to conform to it. This general co-operation once started extended through all the many experiments that our architects made with the Queen Anne Style of architecture, the Romanesque Style, Classic Style, etc., and during the course of these experiments the co-operation became closer, until, finally, in recent years it ceased to move solely upon general lines, but extended to the point that the architect was offered something better than "stock patterns." "Style 684" in the catalogue of a hardware house might indeed be an escutcheou or doorknob or hinge design of good design, but so long as the catalogue was inevitably associated with standardized hardware, clearly the artistic possibilities of the product were seriously limited. An improvement, no doubt, was made when the big hardware manufacturers announced their willingness to undertake the special manufacture of articles to suit the particular requirements of architects, but the product, nevertheless, remained the product of the factory, and was vitiated by the principles and methods of the shop. Standardization with its catalogues, its order numbers, its subordination to the scheme of multiplication, has, of course, its advantages, but these advantages are not and cannot be those that are most sought for and desired by the artistic spirit. It is not under the domination of these principles that the great French artists workmen (for instance like Charpentier) who do not regard it as beneath their dignity to turn from the manipulation of a great piece of decorative sculpture to model a doorknob or to design with exquisite detail a hinge or an escutcheon. But then, work of this latter kind is not for the catalogue, and it is exactly work of this character, thoroughly artistic in spirit and purpose, that our American architects are now demanding in the case of hardware for the finer buildings they are called upon to design. Factory hardware,



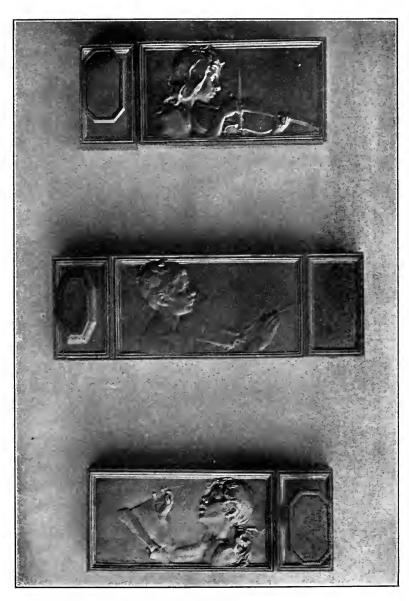
LOCKS.

Made by Maison Fontaine, Paris.

Russell & Erwin Mfg. Co.

(Art Department.)

Concessionaires pour Maison Fontaine.



Designer, Charpentier.

LOCKS.

Made by Maison Fontaine, Paris.

Russell & Erwin Mfg. Co.
(Art Department.)
Concessionaires pour Maison Fontaine.

despite its undoubted excellencies, is out of place, especially in the great residences that are now being reared for our merchant princes. When the wood carving is all specially designed and specially worked by hand, when furniture, pianos, carpets, wall paper even and china are all made to conform to the general effect designed by the architect, it is something of a solecism to equip the doors and windows with factory-made hardware, some of which possibly may be found in duplicate by the owner of the house himself in his neighbor's mansion. The work of the artist-not the mere technical designer—is a necessity. The pieces should be as unique as the frescoes on the walls. For work of this kind the greatest artists that can be employed are none too good craftsmen. Men of this artistic standing, capable of work of this character and willing to do it are not numerous in the United States. They are, indeed, at the present moment almost entirely lacking. We have no one to compare with the great French artists of the present day and moreover, even had we the artists, we lack the craftsmen to execute their designs, and even the skill to finish them to the degree of perfection that pertains in France. The exhibit at the Architectural League establishes this point beyond peradventure. The articles displayed were designed by Charpentier and executed by the great French bronze house—Maison Fontaine. The exhibitors—the Russell & Erwin Mfg. Company—have secured the services of artists like Charpentier, and have become the sole agents in the United States of the Maison Fontaine; and in taking this step they have undoubtedly contributed enormously to the artistic development of hardware in the United States. The recognition of this fact by the Architectural League was well merited, and the discussion that took place at a recent dinner of the Architectural League, when the subject of hardware was the topic for the evening's discussion, showed clearly how welcome the innovation is to our architects, who feel now the need of the co-operation of the highest craftsmenship in all the departments of decoration. The speech on that occasion of Mr. F. G. Draper, manager of the Art Department of the Russell & Erwin Company, which we quote below, stated the position of the subject in terms that were heartily welcomed and cannot well be improved upon.

Mr. President and Gentlemen:

Your President, Mr. Brunner, has evidently called me out in the hope that though connected with a kindred branch of the business with which you gentlement are identified, something might be said from my standpoint of interest to you.

It is not unusual, I believe, for commanders to summon to their cabins ordinary gunners and subordinates for consultation, and in

the development of Art hardware in this country the architect must be the "captain" and the manufacturer "the man behind the gun."

Architecture embraces a knowledge of all the arts, and I must confess to a hesitation in addressing a league of gentlemen composed of the ablest and most distinguished artists in America.

What information I have on the subject has been gathered by over thirty years experience as a hardware man, and I have had the keenest pleasure in witnessing, during that time, the growing demand, year by year, for better and more artistic hardware.

Our country is young. We can almost say that we have seen the soiled and primitive "latch string" replaced by carved metal knobs,

hinges and escutcheons—the creation of genius.

To France we undoubtedly owe the development of ornamental and artistic house hardware. The crude and ancient hinges and locks which you find in the ruins of Pompeii and the museum at Naples, are not very much improved upon in the buildings generally throughout Italy, not in the stocks carried by the dealers which I had the opportunity to examine. This same lack of development is apparent in Germany and England to a large extent. The best class of villas and public buildings throughout Europe which I found trimmed with ornamental hardware, was invariably of French importation, excepting, of course, in Belgium, where the workmen are famous for their creations in hammered iron and bronze, and which, I think, is conceded to be due to the French influence.

I think, gentlemen, it can be said without fear of contradiction that America is to-day producing the best hardware of any country in the world, and the most artistic hardware of any country in the world with the exception of France.

From the beginning of the Renaissance down to the present day the artists of France have been steadily at work, developing not only the designs, but the methods of handling and treating the models and castings.

France exerts a paternal influence in developing art, taste and skill. She furnishes free tuition in art to all the children in her schools, and you can almost, any day see in the galleries of Paris young boys being instructed in the rudiments of art by tutors paid by the government. This system produces a nation where every individual is more or less versed on the subject, which, in this country, is left to a great extent to the leisure class, and it is not surprising, with this population to draw from, that the French manufacturers should be able to employ artists and artisans who have from childhood shown ability and skill in this work.

The manufacturer, inspired by the high regard which the nation itself shows for art, treats the modeler and chaser and even the foundryman with the consideration due to an artist.

In the factories which I visited in Paris I was surprised to learn that the making of the castings is a separate industry, because the manufacturers claim that the art of making an intricate mould, from which a reproduction in metal is made to bring out clearly the lines and delicate ornament as expressed in the artist's model, makes it necessary that such work be executed by those who are especially gifted in this handicraft and often by those who

have inherited through generations the knowledge of the "art of

casting."

I also found that the modeling and chasing are done by artists in their own homes or studios—who work by inspiration and not by the "whistle.". Is it surprising, when you consider the fostering of this industry by the government, the large body of capable artists to draw from, and the great care and strict attention to the slightest detail, that there should be produced the beautiful and artistic specimens of French hardware which you see before you to-night?

Now, gentlemen, the demand for this high class ornamental and artistic work has been created by you, and the artistic tastes of the people in the future is also in your hands, and I think I can say on behalf of the manufacturers of this country that they are thoroughly awake to the importance to this branch of your profession

-- and that you can rely upon their hearty co-operation.



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A FINE WORK OF AMERICAN ARCHITECTURAL SCULPTURE.

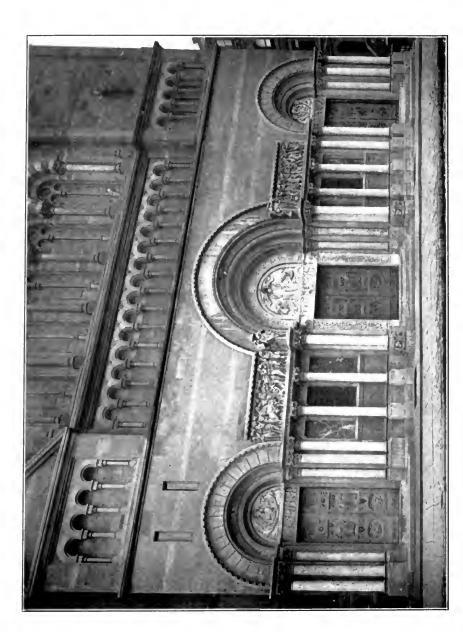
HE new portals and their bronze doors which are now in place on Madison Avenue, at the corner of East Forty-fourth Street, and which make up what is indeed a new front for the old Church of St. Bartholomew, are more evidently the work of the sculptor than of the architect. And yet this statement is true only in so far as if one were to say that the lower story of the west front of Reims Cathedral were, to the hasty looker, mainly the work of the sculptor. If that were stated the other question would immediately arise in the mind, even of the uncareful, the question as to who it was that ordained and marshalled that sculpture and gave it its fitting place in a great composition.

The architect who had charge of this recent piece of work is one of the ablest of modern designers; and in one important respect he is perhaps without a rival. He can turn out more fine and elaborate work in a given time—he can perfect an important composition like this with less jarring of contrary interests and ambitions, with a more perfect and speedily won succcss, than his neighbors. And as to the difficulties which attend the carrying out of such an undertaking, no person can know what they have been, or how great they have been; no one can even guess at them, except the practitioner in decorative architecture who has been through the mill already and has tried with partial success to rally up the forces of three or four sculptors' studios—or of three or four mural painters' ateliers—or the strength of decorative artists of any class and kind, but who think themselves, with reason, workmen of individual and independent merit. No one who has not had that experience can even guess at the difficulties which the controlling intelligence has been compelled to see through and to harmonize in the case before us.

A comparison between this portal and the great porch of Trinity Church in Boston has been made more than once, as of course it

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would necessarily be made. Those two pieces of detail, alone in very recent times, are worthy to be considered at all in comparison each with the other. And yet the essential differences between them are so interesting that it is well to point them out once again. In the Boston porch the usual methods of the architect have been followed; a massive structure has been planned, its details carefully considered, its effect on the whole previously existing monument weighed; and then, for the statuary and reliefs, an architectural sculptor was employed and the design, as in the style of the Southern Romanesque of France, was carefully wrought on historical lines. Mr. Evans, the sculptor in question, worked in perfect harmony with the architects, Shepley, Rutan & Coolidge; working as he should, like a stonecutter with a more delicate job than usual in hand. As to the modeling of the figures, and the very judicious intermingling of modern anatomical knowledge with twelfth century design, there is no room to discuss the subject here, nor is it now our immediate purpose; except to remind the reader that in such a composition every part,—every fold of the drapery,—is a detail of the architecture, as well as of the sculptor's own conception; a result less certain to follow the more usual working out of the sculptor's thought. However much a given statue may lack in special interest, the whole design is an excellent piece of that "associated sculpture" which has been truly spoken of as the very essence and purpose of mediaeval art.

In New York the conditions have been as different as possible. Three sculptors of very high standing were engaged for the work, one of them especially a veteran and an admitted master, and to each one of them a portal was confided; but a fourth most able artist joined this company because Mr. French, controlling the central doorway, found himself compelled by other important duties to divide his arduous task, and associated with himself Mr. Andrew O'Connor. Each one of the three men chosen—Daniel Chester French, Herbert Adams and Philip Martiny-had taken for his own one whole doorway and its bronze valves; and, as the middle doorway fell to French, so the large frieze which flanks the arch of that doorway and stretches away on both sides was added to that sculptor's undertaking; and one sees in this a sufficient reason. apart from all others, why an assistant sculptor was needed in this important case. But take either doorway that you please; look at it and consider how (say in the southern portal) the bronze with its two larger panels, its four smaller and oval panels, the elaborate framing and setting of these panels in delicate foliated sculpture cast in the bronze, are in turn set within a frame of carefully considered stone work, sculptured judiciously at the right points, and the most richly where the wealth of design could best be seen and

appreciated—let all this be examined and let the student remember that the sculptor named must be understood to have executed all the work which is not abstract architectural carving. Thus the flat leafage of the archivolt and the entire leaf-composition of the capital; the elaborate spiral of the great mouldings which frame in the doorway and its tympanum, and the more elaborate carvings of the hood mouldings outside of the arch; all this is the work of the architectural sculptor; that is to say, these were modelled by Mr. Buehler and cut by the contractors for the stonework, B. A. & G. N. Williams. This purely architectural carved work, then, delicate and refined as it is, and inferior to the work of the sculptors first named only in so far as it deals with conventionalized leafage and accepted sculpturesque traditions, has been done in the same manner in which all the work of the Boston porch was carried out. What the New York architect has been compelled to do was to so arrange his general design as to include and utilize the work of men not accustomed to subordinate their sculpture to other considerations than those springing from their own general designs for a monument of any sort—to so arrange his general plan of action that each one of those able men could work in harmony with him and with each other for the production of such a design as we have before us.

It seems right to insist upon this even in a journal which addresses itself mainly to artists. Unfortunately it happens rarely to the American architect that he should have a great chance like this. Unfortunately, it is but seldom that the American sculptor has such a show!

It seems proper to state that this great opportunity came of the generosity of the immediate family of the late Cornelius Vanderbilt. The first proposal to give as a memorial the bronze doors, thus soon developed into the more varied and extensive work of art which we are considering.

Plate I shows the entire composition—the three doorways with the newly built walls above and resting upon them. It will be seen that the transition from the extremely rich and varied work below to the commonplace modern Romanesque work above, left over from a bad old time for New York architecture, is managed in a simple and effective way. There was nothing to be done of any special moment here, merely to avoid too close looking by the looker-on into the methods used: one exception only being made to this statement, the attention given to the color-scheme. The old front of the church was designed in harshly contrasting sandstones of two or even three reddish browns and a light greyish green. The architect of the new addition has tried to construct a delicate color scheme not wholly out of harmony with the too violent one



PLATE II.—THE SOUTH PORTAL OF ST. BARTHOLOMEW'S.

Herbert Adams, Sculptor.

McKim, Mead & White, Architects.

above, and has used shafts of cipollino, panels of darker green veined marble and other panels of the red sandstone, which last are delicately fluted. There is shown also a delicate sense of that color value which may be given to a surface by a relief pattern more elaborate than fluting; and the flat sculpture of the archivolts results from that perception.

Taking up, now, the doorways, one by one, the southern doorway, that on our left in Plate I, is the work of Herbert Adams,



PLATE III.—TYMPANUM, SOUTH PORTAL OF ST. BARTHOLOMEW'S.
Herbert Adams, Sculptor.

McKim, Mead & White, Architects.

except, as above stated, in the matter of conventional architectural carvings of capital and mouldings. This doorway is shown in Plate II. The exquisite tympanum, reminding one in a pleasant way of Luca Della Robbia, is certainly one of the loveliest details of the whole front and confirms the opinion of those to whom Mr. Adams has always seemed one of the first of decorative sculptors; see Plate III. And let no one suppose that this adjective is used in a sense other than that of the highest praise. To be truly a decora-

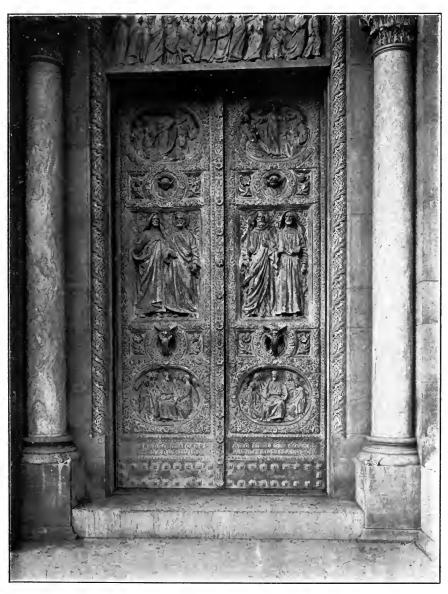


PLATE IV.—BRONZE DOORS, SOUTH PORTAL OF ST. BARTHOLOMEW'S.

Herbert Adams, Sculptor.

McKim, Mead & White, Architects.



PLATE V.—NORTH PORTAL OF ST. BARTHOLOMEW'S.

Philip Martiny, Sculptor.

McKim, Mead & White, Architects.

tive sculptor is to be what is allowed to few modern men. There are sculptors of greater fame and wider renown than Herbert Adams, who have gained their reputations from the expression of sentiment or of action in their work without having one tithe of his power of working to scale and to the point—of producing what we need most when we ask of sculpture its noblest artistic results in glorifying a building beyond and outside of its utilitarian purpose.



PLATE VI.—TYMPANUM, NORTH PORTAL OF ST. BARTHOLOMEW'S.
Philip Martiny, Sculptor. McKim, Mead & White, Architects.

That is to be a decorative sculptor, indeed. Unfortunately enough we have a contrast to that lovely tympanum in the frieze below it and forming part of the same general design. It is hard to say it, but that frieze is trivial in appearance. The tripping action of the gowned figures following one another, although broken by the very different pose of the armed men, is still too aggressive; and from far away that frieze shows a restless and disordered composition. It seems to come of a too earnest search for realism in gesture and pose—but realism of this sort is not desired, it is even objectionable in many designs not connected with architectural

sculpture, for a class requiring dignity and chromatic charm, as for mural painting or noble glass—even for that. Just as we object to landscape paintings or historical paintings or the painting of incidents on the wall treated as if on the small scale of the easel picture, so we object, and have a right to object to restless and unsubdued composition and a too evident study of the inessential facts of nature. The bronze doors, shown in Plate IV., are less stately in effect than those of the other doorways.

Therefore we turn to the north doorway, Plate V, and here it is easy to find a nobler treatment of the bronze; as much realism, perhaps, but a stronger spirit of decorative design to inspire it and make it harmless. As to the stone-carving, it is impossible to praise the tympanum, Plate VI, and therefore, with so much admirable work by Mr. Martiny and his coadjutors to praise, it will be well to pass to the frieze. Here the free and vigorous rendering of the Route to Calvary is worth anyone's study and patient thinking out. Is it or is it not too huddled a composition? Are we in the precence of the really noble handling of a complex subject, varied action, many and diverse elements of design, all bound nobly together; or is there too much for architectural sculpture of the illustrative spirit, of the story-telling spirit? Let the meaning of this query be expressed by a comparison with one of the most important works of art of the century—the well-known and constantly praised Shaw Monument by Augustus Saint Gaudens. The great alto-relief with the marching column, and the mounted officer to whom with his horse the file of infantry serves as a background, seems to many lovers of sculpture an unsculpturesque idea. It is not in that way, as it seems to them, that great monumental compositions are made. With this view is to be contrasted that unbounded and unquestioning praise with which this work is most often received. Is it book-illustration enlarged, or is it grand sculpture? Or if neither, how are its great merit and its possibly slight demerit to be qualified in words? So with the frieze before us. This present writer can only say that the more he has looked at it the better it seems to be —a popular and easy way of giving, as he thinks, very high praise from a single point of view. Plate VII shows the bronze doors of this portal; and nothing is more annoying than the necessity of leaving them without minute analysis. Indeed, each several door of the six calls for and rewards detailed examination.

The middle doorway (Plate VIII) is entirely the work of the sculptors French and O'Connor, as stated above, but it appears that Mr. O'Connor has done the actual work of the doorway—has modeled the groups, is, in fact, the sculptor in the ordinary sense; while as for the determination of the design, to whom this and that part should be ascribed—we have no means of distin-



PLATE VII.—BRONZE DOORS, NORTH PORTAL OF ST. BARTHOLOMEW'S. Philip Martiny, Sculptor. McKim, Mead & White, Architects.



PLATE VIII.—CENTRAL PORTAL OF ST. BARTHOLOMEW'S.

Daniel C. French and Andrew O'Connor, Sculptors. McKim, Mead & White, Architects.

guishing the different parts due to the two different, but harmoniously working intelligences. There is a diversity of character in this figure-sculpture; and a singular readiness is shown to adapt the conditions of the figure-sculpture to the requirements of the decoration. Thus it had been decided evidently by the architectural supreme intelligence that this middle doorway should be adorned by broad pilasters and an architrave of scroll work, so that the

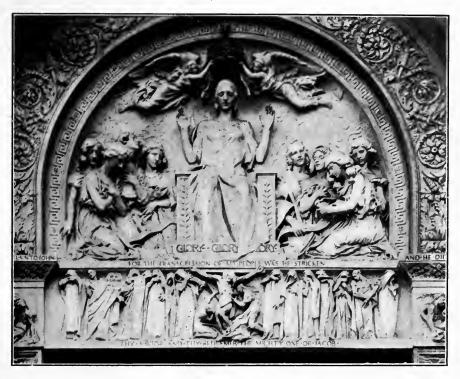


PLATE IX.—TYMPANUM, NORTH PORTAL OF ST. BARTHOLOMEW'S.

Daniel C. French and Andrew O'Connor, Sculptors.

McKim, Mead & White, Architects

bronze doors should be brought down to a width only slightly greater than that of the side doorways; so there arose the necessity for those little squares of high relief and scroll-like and twisted movement, which are to be seen serving as capitals to the pilasters (Plate X). Let the reader look at them and see how perfectly they serve their purpose. They are on a horizontal line with the frieze and adjoin it; and yet they form no part of it whatever. They are on the same vertical line as the pilasters, and even more closely are they bound to the pilasters by their architectural position, and yet they tell at once as figure-sculpture, and as being many degrees higher in the artistic scale than the Roman scrolls and realistic bird forms beside and eke above them. They are beautiful compositions

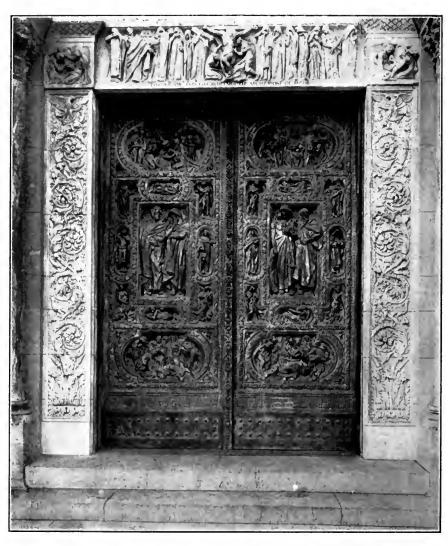


PLATE X.—BRONZE DOORS, NORTH PORTAL OF ST. BARTHOLOMEW'S.

Daniel C. French and Andrew O'Connor, Sculptors. McKim, Mead & White, Architects.

-the one representing, as it seems, the Revelation to Saint John; the other the Temptation in Eden; but that is not so much the point. If those subjects are to be treated in connection with the middle doorway it is indifferent, from our point of view, where they are put in; the essential fact concerning these reliefs is that they so perfectly lend themselves to the purpose for which they were needed, namely, to connect the horizontal frieze of figure subject with the vertical bands of formal sculpture. And as for the horizontal band, the frieze below the tympanum (see Plate X), it is perhaps unfortunate that it is set a little lower than are those of the side portals. It is a little lower, and it looks much lower, because of the width and importance of the doorway and the height of the stilted arches above it. Ignoring this, which is certainly not an essential peculiarity, the frieze itself, considered as an architectural treatment of the Crucifixion, is a very noble thing. Nowhere is there a more pure and faultless composition. The strongly allusive and ecclesiological treatment of the composition only help the abstract and decorative, or (as people may prefer to see it called) the architectural character of the sculpture. The tympanum above it (see Plate IX), with all its dignity and in spite of the exquisite group of angels, one group on either side, is less fortunate in the central figure.

The bronze doors (see Plates IV, VII and X) are notable in this, that they have been cast complete; the whole surface modeled in clay as one composition and moulded and cast as one piece of metal-work. This is so very unusual in the history of this industrial art that it deserves to have special consideration on the part of every student, first as to the mere theory of the thing, the good taste, the sense of propriety, the intelligence displayed; and, secondly, as to the resultant effect. This effect can only be judged by one who has looked carefully at bronze doors in the past and has been annoyed by the formality, the hard cold lines, the lack of harmony in the treatment of the moulded framework, the setting as it might be called, of the sculptured groups. | Such a student will enjoy a real thrill of pleasure when he sees in these doors the figure subjects of the panels, the flower and leaf work which surrounds them, the formal and semi-architectural disposition of the whole treated as a single work of art, modeled as one design, cast in bronze as one complete entity. This is true of each one of the six separate vantaux—of each door in the strictest sense, and the recognition of this is a delightful sensation which awaits him who visits the church. This process, which seems to be an innovation-at least in the United States, and which cannot be common in any part of Europe-is due to the initiative of Mr. French, the chief sculptor of the middle doorway.

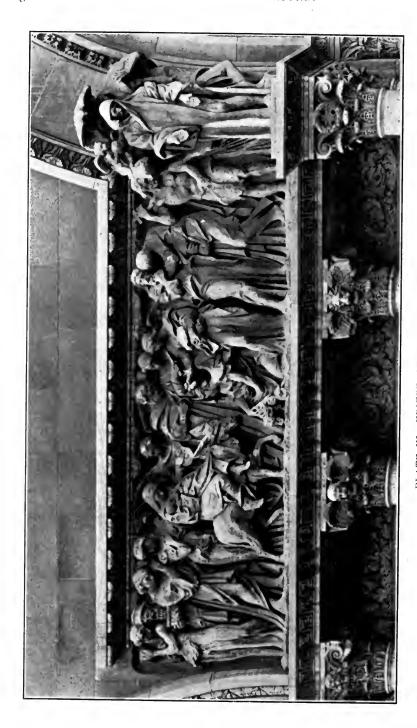


PLATE XI.—FRIEZE, ST. BARTHOLOMEW'S. Daniel C. French and Andrew O'Connor, Sculptors.

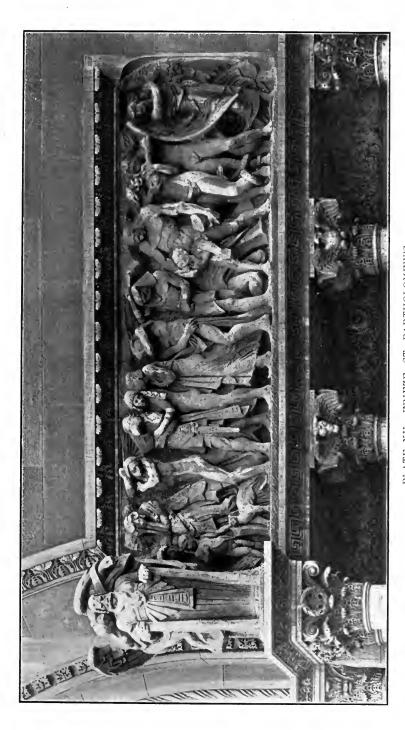
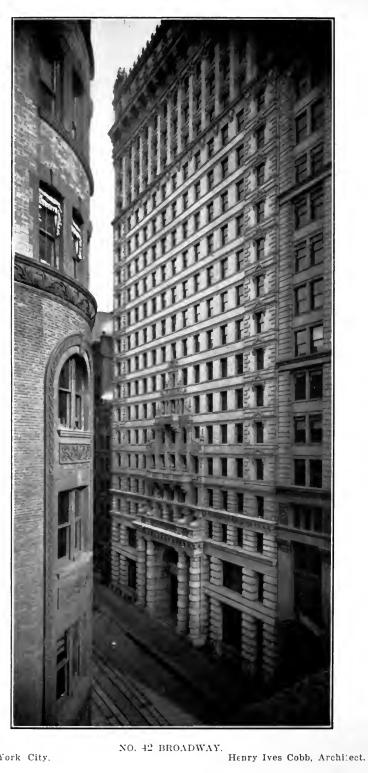


PLATE XII.—FRIEZE, ST. BARTHOLOMEW'S. Daniel C. French and Andrew O'Connor, Sculptors.

It is most unfortunate that various considerations of utility, the desire for light and easily swung doors as the congregation goes in and goes out, to protect the interior of the porch from draft, the desire to protect the bronze from too rapid staining with dust and rain, should have involved the almost complete concealment of these precious doors during the greater part of the day. In fact, one does not know how to so dispose his visit to the church as to see bronze and marble together, sculpture with the tool and sculpture from the cast. No matter what you do, unless you obtain a special dispensation and appropriate money to take down the flapping outer doors, you will never see the composition as it is shown in our Plate I. It would be absurd to blame those who have brought about this result: they knew their own requirements and are right in meeting them; but the monument of art is most seriously marred by the excrescence here mentioned.

Now as to the most striking and brilliant part of the whole composition when the sculpture is considered, the broad frieze which in two parts crosses the front of the church, or seems to, filling up the gap on either side between the middle and the side portal. This detail comes to us from the same sculptors as the middle doorway, and we are told that it is to Mr. O'Connor especially that these highly decorative adjuncts are due, together with the lions carved in the block which serves as the pedestal to the columns of this doorway, and the solemn groups immediately above the capitals of the same columns. This frieze shown on a large scale in Plates XI and XII, is one of the most remarkable sculptures of modern times in the way of extreme remoteness and subtlety of thought. Every pair or small group of figures is to be weighed by itself both as to its significance in an ecclesiological way, its import in a psychical way, its interest to us as a piece of artistic composition. There is, at first sight, a great deal too much of Rodin in the restless over-action—the exaggerated postures; and the evil influence of that great artist is seen here as it is seen in some other modern works. If the vast power and energy of Rodin and his brilliant modeling should get a strong hold on the sculptors who are now coming to full power, the art of architectural sculpture will have a most serious setback; the taking out of the artistical human figure of tranquillity, of repose, of the dignity which comes even to emaciated saints and suffering martyrs from the tranquil spirit of the art in which they find expression, will be the death of sculpture considered as the highest of decorative appliances. Thus in the case before us, the composition and the treatment of the small frieze over the middle doorway is more attractive by far than that of either one of the great panels of the frieze above, because of that very reserve which we associate, indeed, with the arts of the past, but which also we associate with the noblest hopes of the future. The decided action of the small alto-reliefs already spoken of, those of the two ends of the lintel, can be easily accepted and even admired for the reasons mentioned above—they form a part of the series of Roman scrolls, they break the series but connect the parts of it again; they are, in short, in their place, and do their work nobly. In like manner the frieze of the lintel is in place, its lines helping the architecture, its severe vertical mass of drapery on either side controlling the more broken group of the center. It cannot be alleged that there is too much action here, although there is so much, and this because of the admirable treatment of that action, the severity and gravity of line with which it is invested. But of the two panels of the great frieze this would not be altogether true. The bold experiment of using the nude form rather freely in so purely ecclesiological a composition as this, is one which it will take some months or years to rightly evulate; but it seems clear that in so far as we are reminded of the debased rendering of humanity in Rodin's Burghers of Calais, just so far there is a false note struck. And observe that this comes of details of modeling, so far as the study which has been possible during the constantly severe weather of the present winter will allow the enthusiast to judge. It seems as if a touch here, the changing of a fold by so very little, the modifying of a pose in ever so slight a degree, would have made the frieze a nobler thing. For it breathes all the spirit of a true sculpturesque conception. Everything that designer and modeler could do to make the thing a great work of art, is there; marred only, as the present writer feels, by the intrusion into the noble composition of a thought too much of the illustrative spirit, the spirit of realism in the matter of bodily action, of movement, which is not often a fortunate thing for sculpture of any kind—least of all for sculpture of architectural association.

Russell Sturgis.



New York City.

THE ECONOMY OF THE OFFICE BUILDING.*

The writer presented a brief statement of the practical limiting conditions in the design of an office building in a former number of the Architectural Record, describing it as "the mammoth struc-

The Duration
Of Its
Economic Life.

ture, of many stories, that the conditions of our present business life requires us to erect in all centers of population, where the fever of moneygetting is permitted to have full swing, unhampered by any traditions that involve avoidable loss of time." This description still applies to

those examples which jump to the mind when office buildings are mentioned; but for the purposes of this article a further definition is needed.

An office building is a building susceptible of minute subdivision into practically uniform rooms (called office units), all well lighted, heated and ventilated-easy of access both from the street and from its own various floors—and intended for the brain-worker of any type or class, and the clerical force needed to give his work effect. It is the place for housing the executives of all kinds of business, and its cost, therefore, is a necessary charge upon business receipts. Generally, the building is too large to be occupied exclusively by one concern, and the renting of the surplus space serves to emphasize its purely commercial aspect. The writer wishes to state once for all, and as strongly as it can be put, that the only measure of the success of an office building is the average net return from rentals for a period of, say, fifteen years. Everything put into the building that is unnecessary, every cubic foot that is used for purely ornamental purposes beyond that needed to express its use and to make it harmonize with others of its class, is a waste—is, to put it in plain English, perverting some one's money. Of course, in the Wall street district, high rents cannot be obtained from a building with its halls finished in concrete, when the adjoining buildings have a marble finish; but a mansard, or a tower, or a group of statuary does not add to the value of the renting space, and consequently is a waste.

For this reason the design of these buildings has gradually become more and more of an engineering problem, until now it may be said that the best results will be obtained by securing the plan from the engineer of special training. He turns over to an artist the bare skeleton, for him to clothe and decorate as well as he can. The former practice of intrusting the design to a man

^{*}Being the first of a series of articles on the modern office building.

who is primarily an artist, and of permitting him to determine the engineering plan, is commercially bad for every one but the artist, and is a plain departure from the practice obtaining when the world's most noble edifices were built. In a following article this branch of the subject will be elaborated. At present, we will consider the next most important commercial aspect of the skyscraper—its economic life—or the question of how long it will serve its

purpose properly.

We know that in manufacturing there are few machines that should not be replaced in from ten to fifteen years, as by that time there are new machines to take their place, doing the work at less cost. In manufacturing plants, as a whole, we know that good business requires a remodelling or rearrangement at least every ten or fifteen years. In the case of one new plant, for instance, it has earned in three years, over four times its cost, and the point has been reached where a very much larger plant is needed. We frequently hear of such changes, and we occasionally have brought home to us the folly of too much procrastination (such as the ignorant delay in the electric operation of the New York "L" roads for at least six years, and the consequent loss of millions of dollars) and should keep these examples in mind in considering our problem.

It sounds very imposing to say, "We are building for all time." It might be much better business to say, "We are building for fifteen years." The canvas tent of the traveling circus, the plaster buildings of a World's Fair, the granite and marble of a municipal building, differing as they do, yet each exactly meet the requirements of the particular case. In the case of New York below Chambers street, we may expect to see eventually all the space occupied by office buildings, and so should build for at least fifty years. In other localities, wisdom would limit the probably useful life to twenty years.

Our office buildings of to-day must be of a certain type and plan, slightly varied to suit certain localities and designed in accordance with the definite limiting conditions. What changes are likely to occur in this ever-changing city to make a certain building less remunerative? What changes or improvements will occur in the planning and equipment of office buildings to make our new buildings out of date? How soon may we expect to see these changes? What changes in our business methods might occur which would change business needs so that these buildings would no longer meet them?

Well, the office building has come, because men wish to get closer together and save time in transacting business; and they will not cease to need skyscrapers unless by so doing business can

be facilitated. As aids to business, the elevator and the telephone have helped amazingly, but the personal interview for really important transactions is still necessary. In fact, the telephone has made it easier to clear the way of preliminaries, and therefore has made more business possible, the personal interview shorter perhaps, but more essential than ever to bring two minds together so that the stenographer and the typewriter may put the conclusion into definite and practicable form. If this reasoning is correct, humanity will continue to press closer together for the purpose of transacting business, until the physical limit is reached in every direction. The only sufficient obstacle to this result would be an invention, whereby two separated rooms are so placed in communication that whatever goes on in one can be seen and heard in another as readily as if they were one room. Then mankind will perhaps gratify its love of fresh air and sunshine. Our cities will be deserted or will become storehouses for the convenient distribution of manufactured products. Should such an invention be perfected, it would require, however, a generation to work a material change in business methods so that we may continue to build with an easy mind until some such invention comes. While we may, therefore, feel reasonably secure against any complete destruction of the utility of the office building for at least a generation, are there not possible improvements that will change its character or fundamental design?

We are accustomed to think and speak of the enormous and steady progress made in modern industrial machinery. While in general this may be true, in the office building it is only true of the

How Office Buildings May Be Improved. details. We are beginning to put into effect improvements suggested years ago, and have made real progress in the direction of carrying out our plans more quickly, and all things considered, more cheaply; but our plans have not changed substantially, and the limiting conditions are the

same. We are still aiming to make our buildings attractive, easy to re-arrange to suit tenants, well lighted, with convenient internal communication, polite and efficient service, quick elevators, and as accessible as possible to elevated and underground stations. We supply them with every necessity and many luxuries, and do all in our power to get the maximum return for the money invested.

The writer considers it certain that for at least a generation there will be an imperative demand for office buildings, and that the present type will be practically unchanged in its broad outlines.

The improvement made during the past ten years may be briefly stated. There has been a very slight increase in net elevator speeds obtained mainly by improved signalling devices. Automatic heat regulation is practically unchanged, but is a little more generally used. Gas has practically been entirely replaced by electricity. The finish of the buildings is a little more luxurious, and the exterior a little more expensive. The average height of a building has increased. There has been the usual number of gold bricks on the market, and as usual they have mostly been connected with the elevator service. One company claimed for a time that it could operate cars at speeds of 700, 800, 1,000 feet per minute, but in the language of the day it did not "make good." The speed was there, but the time lost through missing landings, starting and stopping, was far greater than the time saved in traveling from one landing to another and, besides, poor human nature could not stand the pace. To-day the highest practicable speed for a way elevator is 450 feet per minute, and for an express 600 feet to 700 feet per minute, depending on the distance traveled.

We may, therefore, safely say that the future will see but little improvement, except in details, and to show this more plainly, let me state the problem rather more in detail.

We are required to produce on a given lot a building of any number of stories, susceptible of a subdivision into a great number of units, varying in size according to location, but approximately with 16 ft. x 20 ft. of floor space and 10 ft. to 12 ft. high, each one opening into a street or a court of from 18 ft. to 25 ft. in width, which court usually has its long axis north and south, and is as much open to the south as conditions will permit.

The vertical movement of the occupants must be effected by small rooms (elevator cars), moving in vertical shafts at speeds of 600 feet per minute or less. The number of cars is determined by the condition that nobody shall be required to wait at any floor more than 45 seconds in general, and not more than 30 seconds in the financial district, and the size of the car by the number of effice units per floor and varying from 25 to 40 square feet in area.

The height is to a certain extent unlimited, but probably twenty-five stories is likely to be the average of the high building. The writer may be in error, for there are many influences to be considered; but so far he has been able to discover absolutely no engineering or economic limit of height below about eighty stories, provided the area of the lot be sufficient. Taking into consideration, however, the ethical or sentimental side of human nature, it is the writer's belief that, while many buildings will exceed twenty-five stories, many more, sufficient at least to establish a general practice, will be kept down to sixteen or twenty stories, if left free

from municipal interference. On the other hand, the writer believes that the interests of the municipality would be best served by establishing height limits in certain districts, so that the population by day in such areas will not be too large for easy transportation and wholesome living, and so that some regularity of skyline may be secured. The typical plan will naturally tend towards a U-form, open to the south.

Elevator Improvements. It is theoretically possible so to perfect the starting and stopping of elevator cars as to make the higher speeds unobjectionable; but in order to accomplish this the human element in the control of the speed must be almost entirely eliminated. The acceleration must take place in a

predetermined number of feet, regardless of the load in the car; the stop must also occur in a predetermined distance, and as a consequence the function of the operator on the car must be to simply push in a starting button and hold it. To stop, either the operator or a person on a landing must push a button corresponding to the proper floor, which will set the stopping device in motion at exactly the right time, without regard to the operator. When a car is at a landing the doors should automatically open and remain open until closed by the operator, and unless closed it should be impossible again to start the car. The mechanical arangements will not be simple, and will require considerable power. They may cost more than they are worth, when compared to the approximation to these conditions now obtained.

The economy—that is, the relation between the pounds of coal burned and work done—by the present appliances is very low; the work should be done with an expenditure of not more than one-quarter of the present amount of energy.

From the nature of the service it is probable that some form of hydraulic apparatus must continue to be used, since only in the hydraulic apparatus is there stored up the large amount of energy necessary to produce the high rate of acceleration absolutely required in an instantly available and convenient form. Electric elevators are absolutely unrivalled in their field, but office building service is not their field, nor is there any sufficient mechanical reason for the expectation that in any of their present forms they will ever extend their fields to include this service. The problem is to impart a velocity of from 6 to 8 miles per hour, to a weight of from 175 to 2,000 pounds, in from 1 to 2 seconds, or to bring this weight to rest when moving at this velocity, in the same time. The energy stored up in water under pressure will do the work perfectly. The work may be stored up in the water, providing

the tanks are large enough, at the average rate for a day requiring a relatively small amount of power constantly expended. There are two drawbacks: which are that the expenditure of energy is not proportioned to the load, but must be the same whether the elevator car be full or empty, and that all forms of pumping engines suitable for any but the very largest plants are inefficient. The line of improvement must take the direction of overcoming these two objections.

The Heating and Ventilating System. The heating of the offices is well enough; but the ventilation is very largely neglected. These two are so closely related that they should be considered together. Present practice is to provide a radiator for heating controlled either by hand or by thermostat for each office unit,

and to provide ventilation by opening the window, the foul air passing into the hall. The ideal arrangement would be to introduce a fixed amount of warmed, fresh clean air to each office unit at any predetermined temperature automatically, and all past attempts may be classed as failures for general use. In fact, there may be said to be no existing way of properly warming the bulk of the offices of an office building without the constant use of a little knowledge, intelligence and trouble. The foul air can be drawn off into a vent-shaft placed at any convenient place. For banking and similar large rooms on lower stories, the standard hot-air heating system, with either exhaust or blast fans, works with entire satisfaction and but little loss of valuable room, but the air inlets should be always 8 ft. above the floor and at least 5 ft. from ceiling, and the outlets for foul air should be near the floor and large enough to have a very low velocity (less than 10 ft. per second). Then the occupants will not feel a draught. The inlet radiators must be high up, because it is at times necessary to introduce the fresh air at a temperature lower than 100° F. when it feels cold and produces the effect of a draught. If the fresh air forms a current flowing always in one direction, surfaces near it will get very dirty, and we are therefore compelled to keep away from the ceiling.

The expedient of using warmed air furnished to each office through flues in the walls has been tried, but is objectionable on account of the large space occupied by the flues, the transmission of noise from floor to floor, and the difficulty of maintaining the desired degree of heat in each office. All floors and walls might be heated by warmed air circulating through them, but the necessary air passages are objectionable, because they afford a harborage for vermin, and in the case of a fire in the contents of an office might distribute the smoke through the building. The neces-

sity of having widely varying temperatures in the different offices also complicates the problem.

If ever electricity can be produced commercially at say 1/10 of present minimum rates, the problem will be solved, for fresh air can be introduced through an opening in the outside wall, all of the dust screened out, warmed to any desired degree by passing over electric heaters and drawn into the office by electric fans, the degree of heat and the speed of the fan being determined by setting a dial hand at the desired temperature, the remaining regulation being automatic and independent of the direction or force of the wind. The windows constitute a serious problem. We want to look out, and at the same time we want fire protection. If we use wire glass we cannot look out, and if we use clear glass it will fly out with the first touch of flame. A three-sash metal window, with one sash glazed with clear glass and two sashes glazed with wire glass, solves the problem and will mark the next step. Cleaning need not present any difficulties or dangers.

Improvements in the Trim.

We need either an incombustible wood or a substitute for the trim of the office, the doors, moldings, base and fixtures. It will come—in fact, has probably come, as there are several materials of promise now on the market. The ideal material will be readily worked, wear as well

as wood, be a poor conductor of heat and incombustible. It will then be pleasant to sit on, pleasant under foot, and absolutely safe.

An improvement will be made by departing from the custom now prevalent of using a cord of wood, more or less, in trimming the office, putting in a high base, chair rail, picture mold and architraves around the doors. There is really needed only the picture mold, and that only to carry wires in a way which permits them to be tapped at any point; and some member to make the joint of the door frame with the partition. With the simplification of design we may expect to see a marked improvement in this latter respect.

Details of Illumination and Construction.

We may expect improvements in lighting in the line of luminous surfaces rather than points, the illumination being obtained with a relatively small expenditure of energy. Wires will probably be still used, and our distribution systems will only change in detail. So long as the present

conditions obtain, an improvement can be made by using one central chandelier in each office unit; making the picture mold a receptacle for wires and supplying those wires from mains running up column lines. The desk illumination can be obtained by drops

from the picture molding and partitions can be easily shifted. If a system should be devised by which the salutary effects of sunlight would be reproduced, we could reduce our courts to simple vent shafts drawing pure air from the roof level and discharging it at a proper temperature in each room. That only means the flooring over of the courts and a shifting of partitions. Nearly all of our buildings could be so changed without difficulty.

Partitions can now be made sufficiently sound and fireproof in a variety of ways. The cost of making them can be decreased under reasonable labor conditions. Any of the solid plaster partitions resting on the floor construction and against the floor construction above are efficient protection against the spread of fire. They are frequently spoiled by the introduction of sashes glazed with plate glass which, in the event of fire, immediately falls out. Only wire glass should be used, and as the sashes interfere with the utilization of the wall, they should be omitted.

Less Steel to be Used in Future. It is probable that the future will see a decreasing amount of structural steel used in the floor framing, and an increasing amount of reinforced concrete, the development progressing until the only structural steel used will be in the columns, in stay beams connecting the columns of suffi-

cient strength to support the centers for the concrete, possibly of less strength than that, and in wall beams. This is the writer's opinion. One does not wish to be dogmatic, and it is only fair to say there are other views on the subject, held by well-informed people who would not agree at all with the foregoing.

Brick, stone and terra cotta are the materials used at present in constructing the walls. Concrete is offered as a substitute. When it is good, it is as good as any other substance; but for walls it is not likely to be uniformly good, nor is it likely to be consistent in color or as pleasing in appearance as stone. Glazed terra cotta is probably the best substance if properly made and set, because since each rain washes it off, it is less likely to be injured by fire, and when injured is more easily replaced. Any material is liable to serious damage from fire in adjoining properties. The greatest improvement that could be made would be a law, requiring all new structures to be fireproof within certain limits and making owners of property in which a fire originated responsible for all of the damage caused by the fire regardless of where this damage occurred or how the fire started.

We are using such large quantities of steel in our buildings, and in fact, are absolutely dependent on it for strength, that we need more knowledge to protect it absolutely from fire and rust, and should improve our practice in applying the knowledge we have, which is certainly sufficient to enable us to guarantee a life of fifty years.

How Fire Insurance May Be Improved. Fire insurance, as conducted, really places a premium on bad construction under our present laws and practice, for it permits the careless and criminal to avoid the consequences of their acts to a very large degree. A man can build an inexpensive low building, insure it to the limit—in-

sure its contents to the limit—have a fire from which he will reap a profit, and damage an adjoining handsome building to a greater amount than his total loss. Moreover, the adjoining building cannot be protected fully from this loss, except by an exorbitant anunal payment. It should be impossible to insure a really hazardous building. In theory present practice, expressed generally, is to fix a minimum premium or charge for each building of a certain class in a certain locality and increase the premium for each departure from what is considered good practice and to force the owner to bear some of the risk. In practice anything can be insured. The difference in premium between a safe and hazardous building is only a small fraction of the difference in the interest cost, so that it is really cheaper to build badly and insure fully, than to build well and insure reasonably. The increases of premium for departures from good practice, are in some cases indefinite and in other cases absurd (as when a charge is made if a fireproof door is omitted between the boiler-room and the rest of the cellar, even when there are other doors absolutely shutting off the balance of the building, and there is positively nothing combustible in either boiler-room or cellar, except the coal). The credit for covering the metal columns of a building, certain to fail if left bare and exposed to a small, fierce blaze, certain to cause great damage and loss if they fail, is so small as to be practically of no consequence as an offset to the interest on the cost of covering. The writer knows of one case where a fire, in itself causing not more than \$500 damage, would endanger columns, which, if one should fail, would cause a loss of certainly \$20,000, and probably many lives. Some of our serious losses have been from socalled exposure fires, and yet the decrease in insurance cost that comes from the use of wire glass and metal sashes and frames, instead of wood sashes and frames and plain glass, the one affording complete protection and the other no protection at all, is so little that it is not worth considering. This whole subject requires readjustment and reforming, and the data on which the premium increase is based should be obtained by a continuing series of experiments conducted by an admittedly impartial, competent director with adequate facilities, and the insurance companies should absolutely refuse to insure a really dangerous building or any building, the value of which was materially less per cubic foot than those immediately adjoining it. If it were possible to win a suit for damages, where one building is injured by fire originating in another, just as it is possible to win a suit for damages when an owner makes an improper use of his property to the injury of the adjoining property, this liability would quickly force owners of hazardous property so to improve it as to make it safe. It is to be hoped that some of our large corporations will try to establish the precedent. Once established, it would work a wonderful change in the point of view of the owners of many relatively unimproved and really dangerous properties.

The Power Plant.

Now let us descend almost literally into the bowels of the earth; let us go far below the surface of the street to the place where heat, light and power are generated, and see what is doing there. We must first of all consider the often discussed and by no means settled question of private plants vs. supply from the street; i. e., from some lighting,

heating and power company.

An office building is a very large consumer of power. For some years the Public Utility Company has endeavored to supply all the power and heat necessary, and does supply many buildings at a price which often shows a marked economy in the operation of the building by so doing, but the mechanical engineer who is really competent knows that wherever economy is so shown in a large building, the owners of the building have been shamelessly robbed by their employees. The writer knows of many plants in large buildings that could advantageously take all power and light from the street; but for every dollar so saved at least one dollar and fifty cents could be saved by getting a competent superintendent and making a few changes.

To illustrate: Recently the writer changed the fuel of a plant in which he was interested from Pocahontas coal to buckwheat and rice coal. The coal bills were practically cut in two, with no loss in efficiency. In one of our large buildings egg coal is used exclusively—if rice were used the fuel bill for that building would be less than half. Engines are run under improper conditions, using from one and one-half to twice as much fuel as they need. Pumps are run with their drips open, thus doubling their coal consumption. Compound elevator pumps are run at variable speeds, the maximum being less than one-half what it should be. The consequent coal consumption is from four to eight times that of a decently

designed plant. Exhaust steam is wasted and live steam used for heating, thereby increasing the coal consumption from one and one-half to two times.

Architects provide wholly inadequate spaces for machinery, and so necessitate the use of inefficient boilers, insufficient tanks, steam wasting appliances and other bad features that can be put into a design, and make matters still worse by limiting the cost of the plant to an absolute minimum. Contractors are furnished with the merest outlines of requirements; the bids are obtained and contracts awarded to the lowest bidder, who is either careless, ignorant or dishonest enough to talk of an economy (even to guarantee it, sometimes) that a competent man knows he cannot attain. it goes; the plant goes in; is a failure, and the New York Edison gets another contract. If, however, the engineer or real architect is familiar with the problem, this very essential part of the building is allowed adequate room. The parts are harmoniously designed to fill the requirements. The superintendent of the building is a competent engineer, who is paid enough to be above the temptation to steal, and knows enough to keep his force up to their work. The plant is relatively simple, easy to handle, and during the first year reports are sent to the designer so that a record of performance is made, by which the owners can judge of competency in the future. When these precautions are taken, the cost of operation is far below the sum which the New York Edison Company will charge. The writer and other engineers have proved this in many plants, but the objectionable conditions obtain in so many more, that general practice is rather in favor of procuring all of the power possible from the Edison Company. Future development will be in the line of better engineering and more independent plants in buildings of 5,000 square feet or more.

The ideal plant should contain at least three boilers of the same size, one being sufficient for the ordinary summer or light duty. The other two will take the winter or heavy duty, leaving always at least one in reserve. They should be of a type adapted to the available space—Manning, Marine or Water Tube.

The engine for power should be high speed automatic simple engine of Curtis Turbines (when they can be purchased) at least three of the same size, with heavy parts. The cylinder should be of the same dimension for bore and stroke, proportioned to take a generator overload of 30% when cutting off seven-sixteenths to one-half stroke. They should supply power for every purpose except that of the boiler-feed return pumps and the elevator pumps, regular duty and for all lights. Two of them, however, should be able to carry all lights and two-thirds of the power when overloaded 25%.

There should be three elevator pumps, compound, to work against three pounds back pressure in the exhaust, with tanks so large that, if a car is to start every thirty seconds from the first landing, two pumps can supply the necessary water at a piston speed of say 75 feet per minute uniformly maintained. One pump at 75 feet piston speed can then handle a 60-second schedule with irregular running of cars and regular running of pumps. The tank capacity should permit half the number of cars to start up simultaneously, or to stand simultaneously without changing the pump speed for six seconds. With a very large number of elevators eight or more—the pump should be of the fly-wheel type, compound, to work against three pounds back pressure in the exhaust, with liberal tank capacity and with two compound pumps of onehalf capacity each, in reserve. Under no conditions should the pump work against a governor that constantly varies the speed by throttling, because this wastes steam. There should be an electrically-operated pump for all night service, giving half the normal speed for one car. This pump could be arranged with a special suction on the pressure side of the other pumps to use as a safelifting pump by making the water end strong enough.

There should be two boiler-feed pumps connected through a return tank and governor, to the return of condensed steam from the hot water tank and heating system. No less than three electric pumps for house service; two air compressors for elevator and house service, electrically operated, and two stage. Two rotary electric pumps for low-line drainage, drip and blow-off tank work. One feed-water heater, open or water-tube.

Furthermore, space should be provided for two or more feedwater heaters, the water tube to go on exhaust line for hot water heating, perhaps a sewage lift, certainly a number of exhaust and heating fans, and finally for the storage of at least one week's supply of coal and one week's accumulation of ashes. The reciprocating engines are likely to be displaced in the near future by the Curtis or similar turbines. In very large installations there may possibly be a field for the Parsons turbine; but ordinarily the requirements of exhaust steam for heat will operate against turbines of the Parsons type. Turbines requiring reducing gears are not to be considered in general on account of the excessive noise.

Assuming that these various appliances are properly proportioned and arranged, they require so much room that at least all of the cellar of a building occupying less than two lots is needed. For the building having less than this area, the greater part of the supply must come from the street. Future improvements will be along the line of a more efficient production of electric current, first by improved forms of generating apparatus, engines and boilers;

by the introduction of more electrically-operated apparatus; by the use of more economical pumping engines until they can be discarded; possibly by discarding steam and using gas or pulverized coal; and probably finally by the almost direct conversion of the energy stored in the coal into energy in the form of electricity. When electricity is so cheaply produced that it can be used for heating, steam will no longer be needed, and our plants will be practically eliminated. When that time comes the cost of distribution, which is now as great as the cost of generating electricity, will be reduced certainly to ten per cent. of its present cost, and so will make it economical to generate the current in the building. With electric current at say I per cent. per horse power per hour every plant in New York almost could be economically shut down and taken out.

The field for speculation in this branch of the subject is almost infinite, but really hinges, so far as any radical change is concerned, on the discovery of a new process of producing electricity or power very cheaply.

Two matters remain to be considered—whether as improvements or merely as developments depends on the point of view; they are the question of height and of designing.

Conditions
Determining
Height

Height is effected by the following considerations: (a) Sixteen stories or less can be carried on piles or grillages, no matter how bad the bottom. More than sixteen stories require caissons, or an equivalent expense if the sub-soil is bad. Therefore, several additional stories must be

put in simply to pay interest on the extra cost of the caissons. (b) For lots of 7,500 to 12,500 square feet, five cars will give a satisfactory elevator service up to twelve stories. Higher than that a car should be added for each additional three stories, costing 100 square feet of room on each floor per car. For still greater area the number of cars must be increased, say one car for each 2,000 square feet, and this is because it is impossible to load and unload a large car fast enough—two cars of forty square feet running in a twenty-story building will handle more people in a day than one of eighty square feet, and do it with very much more satisfaction.

(c) In a sixteen-story building, with ordinary foundations, the addition of a seventeenth story will add more than one-sixteenth the cost of the building by 5%; for an eighteenth story 10% must be added to the one-sixteenth, and so on. Thus, if a sixteen-story building costs \$480.000, then a seventeenth story will add to the cost \$31,500; an eighteenth story, \$33,000, etc.

- (d) The time necessary to go from a street corner to the twentieth floor of a twenty-story building in front of which a person is standing is about the same as the time required to walk half a block, and reach the tenth floor of a neighboring building.
- (e) The time required to go from the twentieth to the fifth floor of a twenty-story building is about the same as that required to go from the tenth story of a ten-story building to the tenth story of an adjoining ten-story building.
- (f) The heating of one upper story (above the tenth) will cost nearly as much as heating two lower stories, unless there is always exhaust steam to waste.
- (g) The average temperatue of the outside air at any 200 feet above the street and above is from 3° to 5° less than the average at the street. This is an advantage in the summer and a disadvantage in the winter.
- (h) If the elevators could be divided into sections and the shaft-ways for the way elevators stopped, for example, at the tenth floor of a twenty-story building, then a saving of space could be effected. This has not yet been done, and would require a change in the New York building law. The space so saved would not always be available for renting purposes.
- (j) No formula can be made to express all the conditions, for it would have to be based on so many assumptions that would have no value when solved; but by averaging a number of cases and making certain assumptions, it may be stated that probably a thirty-two story building would have a gross return of 11% under conditions that would show a gross return of 10% for a sixteenstory building on the same lot. That is, an investment of \$3,420,000 divided into: lot, \$1,000,000; building, \$2,420,000; would show a return of \$376,200; where a total investment of \$2,000,000 divided into lot \$1,000,000, building \$1,000,000, would show a return of \$200,000. That means that an additional expenditure of \$1,420,000 would return \$176,000. There are many cases in which the smaller amount could be obtained, while the larger could not.
- (k) The vibration of very tall buildings (over twenty-five stories) is an unknown quantity. Theory indicates that it would be objectionable. Practice reveals its existence in certain cases, though in a slight degree. It is probable that in buildings exceeding sixteen stories and of a height exceeding five times the least width, there will be objectionable vibration after the buildings have been erected fifteen to twenty years.

If the soil is such as will support a sixteen-story building but no more, the commercial considerations detailed above would limit the height to sixteen stories. If it is doubtful whether more than sixteen stories can be carried and the site is expensive, then we must put in caissons and decide on twenty stories. If the lot is not expensive, we would be content with sixteen stories.

Finally in the design and erection of these buildings we can already see the line of future development. While many owners stick to the old practise of selecting an architect who draws plans and gets gratuitously from contractors the plans for the foundation, structure, heating, lighting, elevators, plumbing and even decorations, who combines them more or less (generally very much less) successfully, and who then jobs out the erection to one or more contractors, other owners have adopted the latest practice of having a corporation make the plans, erect the building, and even for a time operate it; there are even many cases where the owner plans, erects and operates on his or its own account. There can be no question that the best way is to have one concern design, erect and operate, and this will be improved upon only by specializing to the extent of limiting the field of the designing and erecting concern to one class of buildings. Whether this be done by an individual or a corporation makes no difference, since in either case there must be the same organization, the same executive on whom must rest the final responsibility, and from whom is demanded a good general knowledge of the subject, great executive ability and that knowledge of men that will enable him to select his associates successfully. There may be a board of directors, there may be a president to dictate a general policy, but there must be in this work, as in every other work—steel manufacture, railroads, manufacturing—anything else you choose—one head—a calm, constructive, thoughtful, intelligent, self-reliant, honorable man, to direct affairs. It does not follow that necessarily the success of a company will only be coincident with that man's life. In fact, the greatest effort of such a man, after securing the success of the company, would be to develop a worthy successor. Such men, while relatively few, are still to be obtained. The first step in this development will be the combination of promoting, financing and building in one corporation in which the public, as shareholders, will have a part. This final step has, in some cases, been taken, and is destined to be ultimately successful, not by crushing competitors, but by doing so much better work in its chosen field that there will be no competitors.

Geo. Hill.



THE FRICK BUILDING.

Pittsburgh, Pa.

D. H. Burnham & Co., Architects.

THE FRICK BUILDING

PITTSBURGH, PENNSYLVANIA



D. H. BURNHAM & CO.





ENTRANCE OF THE FRICK BUILDING.

Pittsburgh, Pa.

D. H. Burnham & Co., Architects.



HALLWAY-FRICK BUILDING.

D. H. Burnham & Co., Architects.



STAIRS AND HALL-FRICK BUILDING.

D. H. Burnham & Co., Architects.



THE LION-FRICK BUILDING.

Pittsburgh, Pa.

D. H. Burnham & Co., Architects.



STAINED GLASS-FRICK BUILDING.

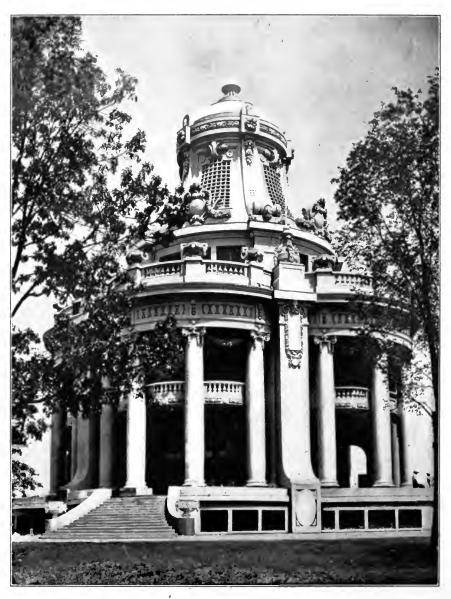
D. H. Burnham & Co., Architects.





TWO INTERIORS-FRICK BUILDING.

D. H. Burnham & Co., Architects.



RESTAURANT PAVILION AT THE END OF THE TERRACE OF THE STATES.

Louisiana Purchase Exposition.

E. L. Masqueray, Architect.



SOUTH FRONT OF THE LIBERAL ARTS BUILDING.

Louisiana Purchase Exposition. Barnett, Haynes & Barnett, Architects.

THE ARCHITECTURE OF THE LOUISIANA PURCHASE EXPOSITION.

HE architecture of the Louisiana Purchase Exposition will be much better than most people, and particularly than most architects suppose. A visit to the grounds enables one to say that with great confidence. The fair has been more or less discredited, or, to use the expressive phrase of the street, "queered" by the reports of the artists who have helped to make it. Every train that sweeps from the West has brought to our ears the wails or curses of some disgruntled architect, sculptor, mural painter or what not, who has had his tale of woe to tell. As he was naturally more intent upon doing justice to himself than to the show, the show has correspondingly suffered in public estimation.

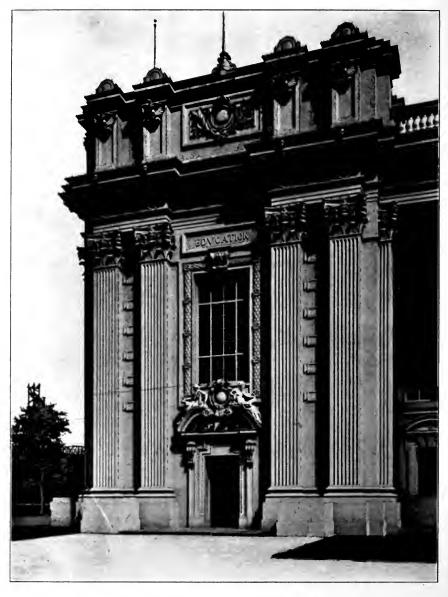
There are more causes for this than one. In the first place, to refine upon the phrase of the street, the avidity of mordication of the projectors of the fair has evidently exceeded their capacity for mastication. They have been short of money wherewith to execute their ambitious and grandiose designs, and they have had no choice but to lop and prune in what the artists naturally assume to have been an arbitrary and Procrustean fashion. The notion at the bases of the projectors' brains and the tips of their tongues was that it devolved upon them to "beat Chicago." Now, beating Chicago in the artistic merit of the fair was a difficult and ambitious, but a legitimate and worthy undertaking. This was

not quite the view the projectors took of it. By beating Chicago they meant making a bigger exposition, not a better. Anybody can see that from the kind of advertising to which they have addicted themselves. They do not expatiate to you upon the advantage they have over that flat stretch of lake shore in the terrain at St. Louis, although that is a marked and clear advantage. They do not point out to how skilfully this advantage has been employed, as they accurately and properly might. They tell you, instead, how much more mileage the fences of the fair enclose than were enclosed at Chicago, and how much more acreage it has "under roof" until von are grievously bored, and even begin to suspect that General Choke and Jefferson Brick and Hannibal Chollop have been making the fair as well as advertising it. But what the fair is they never tell you, never, at least in the most widely circulated and official of their proclamations. That it is "bigger than Chicago" is the one fact that is hammered in upon your brain.

And it is in this naive effort that the inequality between the mordication and the mastication of St. Louis becomes evident. Because beating Chicago, in point of mere magnitude, is a very ambitious effort for St. Louis. Why should the St. Louis Fair be a bigger thing than that of Chicago when Chicago itself is so much bigger a thing than St. Louis? In 1803 there were nearly twice as many people in Chicago as there now are in St. Louis. There was, we may assume, a proportionate superiority of wealth, and there was a seething and ebullient local patriotism to which the world had no parallel. The Chicago Fair cost, all told, over thirty. millions. The St. Louis Fair had spent, a few weeks ago, sixteen millions, and urgently needed some five millions more, but had nothing left but to go to Congress, as it did with success. The effort to beat Chicago in bigness with less money, under these conditions, seems to have involved a sacrifice of things more to be desired than bigness. If St. Louis, like Buffalo, had cut its coat according to its cloth, it might have given a fair so attractive that no visitor would have asked or cared whether it broke any or all records of mere magnitude. The actual effort involved, for example, the abandonment of the steel interior construction which enabled the bridging of such vast spaces and the reduction of the width of the naves to what could be spanned with timber. It is true that this reduction gives scope for a decorative treatment of the interior courts. But such a treatment also costs money, and the money was not to be had. It had all been spent upon the outsides and upon their sculptural accessories. A few weeks ago, when the observations were made upon which these remarks are based, there was a great deal of landscape gardening, including transplantation of considerable trees, which urgently needed doing in order

to carry out the plan. And there was equally urgent need of the exterior employment of color. There was a chief of color, Mr. Louis J. Millet, whose interesting and suggestive decoration of the outside of the Transportation Building at Chicago will be remembered by all visitors to the Columbian, and whose competency for the work may be taken as established. And there were buildings in evident need of this enrichment. Mr. Link, the author of the Building of Mines, is the "Secessionist" of this Fair, as Mr. Sullivan, the author of the Transportation Building was the Secessionist of Chicago, and has been equally inspired by the desire to make a real building out of plaster instead of being contented with the semblance of a building of masonry. This purpose, at least, seems to be denoted by the bold projection of the eaves, with their solid shadows, and the plain expanses of the walls, even if it be elsewhere contradicted, as in the massiveness of the pylons of the entrances. But, evidently; the device which is meant to take the places of the conventional modeled ornament must be the application of color. And there are other buildings, designed by the Chief of Design, or consulting architect of the Exposition, upon which economic considerations have imposed an extreme plainness of design which without the addition of painted decoration threatens to become baldness. Of these are the buildings of Agriculture, of Horticulture, and of Forestry, Fish and Game. Excepting for a very modest and sparing decoration of the entrances by modeled ornament, these are but vast sheds, though very well proportioned, well designed and well lighted sheds, evidently depending for their festal effect upon decoration to be added, that is to say, upon painted decoration. In fact, at every turn upon the grounds one came, five or six weeks ago, upon evidence of the need for more money—in some places to "make these dry bones live," in all to put the fair into presentable and attractive condition. One was quite prepared to believe that the additional four millions and a-half for which the managers appealed to Congress was the irreducible minimum of their requirements.

But let us turn from the temporary and casual imperfections of the execution to the design. Without knowing the history of the scheme, the spectator on the spot imagines that the original design has been supplemented by an amendment, and so supplemented as in some respects to supplant it. The site of the Exposition is part of the "Forest Park" of St. Louis, consisting of a level, say a mile in extent each way, which was known as "The Wilderness," grown with a tract of virgin woodland interspersed with some thousands of fine forest trees. These have been quite ruthlessly sacrificed, one is tempted to say wantonly, for although the clearing was evidently necessary, given the site of the fair, there



CORNER ENTRANCE OF THE PALACE OF EDUCATION.

Louisiana Purchase Exposition. Eames & Young, Architects.

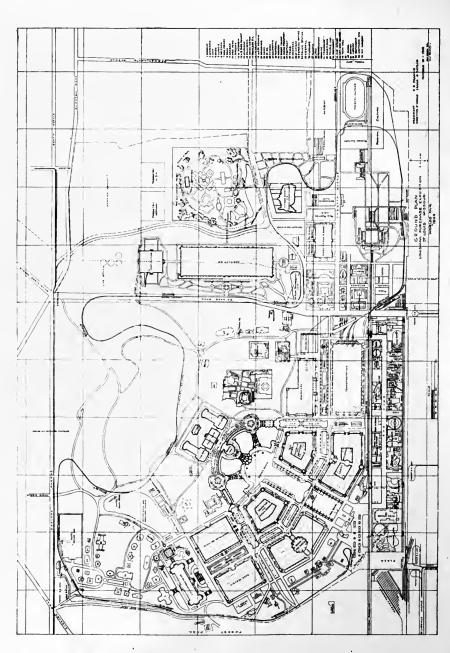
seems to have been nothing to prevent the moving of the fair back to a point where no such sacrifice would have been entailed. The site, however, would appear to have been chosen before any artistic counsel was invoked. When such counsel was taken, it appeared that the one natural feature of the site, at least the only one left to it after the clearing was a wooded ridge bounding it to the Southeast. To crown this ridge, at its central point, with the most monumental, and in fact the only permanent building of the fair,



NORTH FAÇADE OF THE PALACE OF MANUFACTURES.

Louisiana Purchase Exposition. Carrère & Hastings, Architects.

was an obvious expedient. Accordingly, this site, commanding the plain below which was to hold the group of palaces, was reserved for the Art Building, which Mr. Cass Gilbert was appointed to design, and which was expected to be the dominating feature of the show. But a second thought indicated that the picturesque possibilities of the hill were not exhausted, nor even fully employed by this acropolis, that the whole of this central ridge should be occupied by the crowning feature of the fair, and that the slope of the hillside should be brought into service also. Doubtless that was a happy thought which issued in the Terrace of the States and the Cascade Gardens which are in fact what the French call the "clou" of the whole display. Only the execution had the unfortunate incidental



PALACE OF MINES AND METALLURGY.

effect of obliterating the Art Building as the central feature of the fair, or, indeed, as a feature at all in the general view. The curving colonnade, a quarter of a mile in length, which is called the Terrace of the States, is built directly in front of it, with the cupola of Festival Hall rising two hundred feet, and of about the same diameter at the base, at the centre, effectually screening out the building behind from any participation in the general effect. There was perhaps no help for this after the better second thought had superseded the first, and yet it seems a pity and a waste. In fact the Art Building will not be fairly seen, will not be seen as it was meant to be seen, until the fair has been demolished. The change was made, it must be owned, with every possible consideration, for it was the architect of the Art Building who was invited to efface his own work by designing the building that was to hide it.

At any rate, this enrying ridge being selected as the centre of the plan, the rest of the plan, at least in its main outline, follows as a matter of course. Festival Hall on its hill commands and terminates the great avenue that leads direct to the main entrance, the great avenue, five hundred feet wide, from front to front of its bordering palaces, and the main entrance half mile away. The first third of this interval outward from the central feature is occupied by the hillside down which the cascades that take their rise at the centre and at the ends of the colonnaded "Terrace of the States" are to flow, and by the "Grand Basin" into which they are to be emptied, and thence to be diverted, in the form of canals, around the two palaces that front the basin, the palaces of Electricity and Education. Two lateral avenues diverge from the pavilions which form the terminal features, as Festival Hall forms the central feature, of the Terrace of the States, and of which one stops the vista of the avenue, looking inward, which looking outward is stopped by an entrance gateway. Observe that the avenue, a waterway between the inner palaces, is terra firma between the outer, and the transverse avenue between the inner and outer groups is likewise waterway between the lateral avenues, and sunken garden outside of them. This transverse avenue brings up one of the puzzles of the plan. Since it could not be kept straight, being in effect a segment struck with a radius from the central Festival Hall, and since, therefore a view of it from end to end could not be preserved, why not make it a curve instead of a broken line, and moreover a broken line of which the break comes at the centre of a "block" of palaces? There were very likely practical reasons for adopting the actual arrangement. One sees that the laying out and construction of the buildings along the curve would have involved more skill and trouble, and hence more expense, than laving them out and building them around a corner. But while the curve might have been practically

awkward, there is a distressing architectural awkwardness about the broken line. One result of it is that no one of the buildings which face this transverse avenue gets the benefit of its dimensions. Evidently the effect of the colonnade of Education, or of the arcade of Manufactures would have been far more impressive, if it had been built along a sweeping curve than it is when it is rudely broken by an abrupt change of direction. On the inner buildings the designers have suffered from this misfortune only on one side, and that the outer, where the angle is a projection, but in the outer on both the longer fronts, while on one of them the angle is a recess and offers a space extremely difficult to make a "feature" of. It seems a great pity that the segment of a circle should not have been adopted for this cross street, and the designers relieved from the necessity of trying to treat these awkward and intractable polygons that accrue from the actual plan. With regard to the actual treatment, the architect of Electricity, who had only a projection to manage, seems to have been ill advised in voluntarily making it a recess. Of the two designers who were forced to treat recesses, the architect of Manufactures has resorted to a simple truncation, occupied by a triumphal arch bigger and more imposing even than the wide and deep arch that forms the unit of his design, while the architect of Varied Industries has resorted to the ingenious and effective expedient of a projecting and segmental colonnade. But from the arrangement it follows that the actually shorter fronts of these four buildings are architecturally and effectively the longer. and that the greatest effective length is not of one of these principal and most conspicuous palaces, but of such an outlying building as that of Transportation, outside, that is, of the lateral avenue on its side. To be sure this is a quarter of a mile long, and looks it, but it is not so long as the outer front either of Manufactures or of Varied Industries would be if it were straightened out. Moreover, its extent becomes monotonous for want of the central feature which the architect designed for it, a reproduction of the colossal and effective triple portal of the ends, which appears in the drawings for the long side but has disappeared from the building. It would rather have emphasized than disturbed, while it would have enlivened, the vast expanse of this flank.

Another puzzle of the plan is the placing of the Louisiana Purchase Monument, monument so-called, though only of plaster and destined to no longer a duration than that of the fair. This is a stout erection, a solid tower rather than a column in the classic sense, of which the architectural purpose is to provide at one end of the great basin a counterpart to the Festival Hall at the other, which shall be a focus for lookers-on from the hill as that for lookers-on from the lower level. It is well-designed for its purpose, but

ill placed. It seems obvious that this shaft should stand in the axis of the transverse avenue as well as in that of the straight central avenue and focus the view from so much of its extent, on either side, as the turn allows to be taken in at once. For this purpose a bold semicircular projection from the shore at the centre of the basin is pretty plainly indicated. Yet in fact the monument is withdrawn behind the building line of the flanking palace and is not apprehensible except from the central avenue itself. Whatever practical considerations may have seemed to require the abrupt turn in the transverse avenue, instead of a gradual bend cannot have operated here. The artistic loss is without practical compensation.



THE TERRACE OF THE STATES.

Louisiana Purchase Exposition.

E. L. Masqueray, Architect.

These two drawbacks are important as affecting the general "lay out" upon which the spectacular and panoramic success of the Exposition must so largely depend. In spite of them, and in spite of the fact that to make it the most costly, important and permanent structure of the fair, the Art Building had to be sacrificed for the whole period of the fair, and that, for the purpose of the fair the money spent upon its architecture has been largely wasted, this lay out is admirable, and makes the best use of the terrain. But the defects are precisely such as were avoided at Chicago, and were avoided there by that harmonious and enthusiastic co-operation of everybody concerned which really made the success of the Columbian Exposition. Everybody concerned would doubtless admit, did, in fact, at the time admit, and even proclaim that the one in-

dispensable factor in that success, so far, and that was very far, as it was an architectural success, was the personality of Mr. Burnham, who, more than anybody else, was the designer of a fair in which he did not appear as designer at all. It was he who made the "direct selection" of the architects who so vindicated his choice, and who afterwards stood between them and the business men with whose notions their own were so apt to come into conflict, and who also mediated effectually between themselves and promoted that interchange of friendly but frank criticism by which the work so



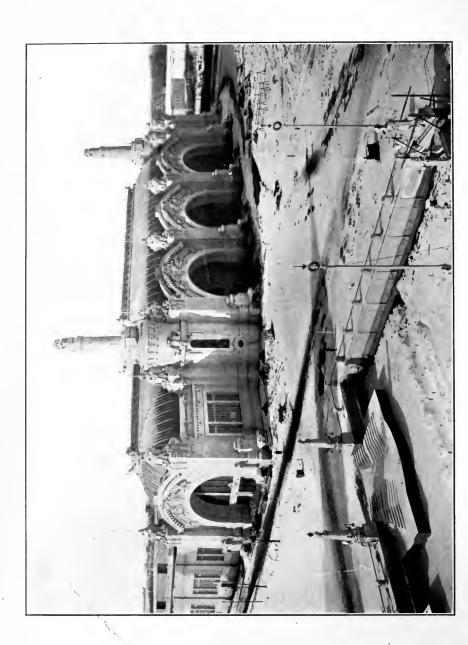
PROJECTING ANGLE OF THE ELECTRICITY BUILDING.

Louisiana Purchase Exposition. Walker & Kimball, Architects.

greatly profited. It has not been the fault of the managers at St. Louis that Mr. Burnham's services have not again been made available. But to expect an equal success in the way of loyal and cordial co-operation without the man who brought it about was

"As if a miracle could be encored."

The same system of selection has prevailed at St. Louis as at Chicago, and Buffalo. That is to say, the work has been equally divided between local architects and architects from outside. But the system has not worked in all respects so well in this instance as in those instances. The architects of Chicago, counting among them





VARIED INDUSTRIES BUILDING ON THE LEFT; LIBERAL ARTS BUILDING IN THE CENTER; ELECTRICITY BUILDING ON THE RIGHT.

Louisiana Purchase Exposition.

Mr. Atwood, who succeeded John Root as consulting architect, at an early stage of the work, contributed quite their full half to the attractiveness of the Exposition, and the architects of Buffalo, as everybody knows who saw the Pan-American, came out unexpectedly strong. Nobody can go about St. Louis without seeing evidences of such professional competency, in the design of commercial and domestic buildings, which, as in Chicago, so nearly ex-



CORNER OF LIBERAL ARTS BUILDING.

Louisiana Purchase Exposition.

Barnet, Haynes & Barnet, Architects.

haust the architectural activities of the place, as would clearly entitle the architects who have manifested it to take part in the building of a World's Fair. But the visitor does not find that in all cases, it is the men who have manifested this competency who have been chosen, and in some cases comes to speculate with some wonder upon what the principle of selection can have been. For, if the most complete architectural success of the principal palaces is, as it seems to the present visitor to be, the palace of Education, by a local architect, the palaces of Machinery and of Liberal Arts, which he finds himself unable to acclaim as successes, are also the works of local architects—not, just now, to put in either category that questionable and question-provoking edifice, the palace of Mines.



THE EDUCATION BUILDING.—ONE OF THE MAIN ENTRANCES.

Louisiana Purchase Exposition. Eames & Young, Architects.

A glance at the ground plan will show that the central part of the Exposition, in which a uniform, formal and grandiose scheme of architectural treatment seems to impose itself, consists of eight palaces. Those of Education and Electricity, as confronting the Grand Basin and the Cascade Gardens, and consequently as nearest to the centre of the diverging plan, are at once the smallest and the most conspicuous. By reason of their centrality and their conspicuousness, one is inclined to think them, in spite of their lesser dimensions the architectural prizes of the plan, the buildings one of which an architect who had his choice of all the fair would prefer to do. The architect would be likely to be tempted, not only by the situation, but also by the fact that the awkwardness entailed by the break in the line of the transverse avenue occurs only on one side of the building, and then in the mitigated form of a projection and not in the aggravated form of a recession. Behind these, that is to say, across the transverse avenue, come the larger bulks of Manufactures on one side and Varied Industries on the other. The greater magnitude of these can scarcely be counted an advantage when one considers that it not only entails the necessity of trying to signalize the awkward recess, but that, architecturally, the magnitude is not effectively greater than that of the buildings which in area are so much smaller. The straight side of Electricity or Education is as long as that of Manufactures or Varied Industries and as long as either of the two facades into which, by the peculiarity of the plan, the outer front is broken which, if straightened out, would equal or approach the length of the great building of Liberal Arts at Chicago. But only half of one of these outer fronts can be really seen at a time. The inner fronts to be sure can be seen together and all at once, and if the avenue they front had been curved instead of broken the expanse might have been made most impressive. But the impressiveness is very much diminished by the jog at the centre, which moreover offers such an awkwardness in itself that one is tempted rather to condole with the authors of these larger buildings upon an architectural difficulty than to congratulate them upon an architectural opportunity. Outside of each of the four buildings of this central group, flanking it, that is to say, comes another, which is to be seen in conjunction with it, and which has the advantage of a parallelogrammatic plan, Mines outside of Education, Liberal Arts outside of Manufactures, Machinery outside of Electricity, and Transportation outside of Varied Industries. The two former are nearly squares, the two latter nearly double squares, and affording by far the best opportunity for the emphasis of mere magnitude, or rather of mere longitude, which the Exposition presents. As has been indicated, the design of Transportation, or rather the execution by omitting an important element in the design, puts



THE MANUFACTURERS' BUILDING—THE VESTIBULE.

Louisiana Purchase Exposition. Carrère & Hastings, Architects.





PRESENT STATE OF EXPOSITION GROUNDS.—EDUCATION BUILDING ON THE RIGHT. Louisiana Purchase Exposition.

emphasis on this feature so exclusively that the result becomes monotonous. It is a pity, for the great triple portal of the end, designed to be repeated on the side, would not only effectively relieve this monotony, but is in itself, in its largeness and simplicity, and its unfailing success in scale and in detail, one of the most impressive things the Exposition has to show. The building of Machinery suffers from the opposite defect. Its parts are so numerous, so various, and so insistent, that the expanse of the whole, which would be so impressive if it had been left more alone, tends almost to disappear as an element of effectiveness. The huge arcaded and pedimented central feature which almost constitutes the end of the building is repeated, with the addition of a mansard and flanked by two towering steeples, at the centre of the side, to such effect that nobody is likely to complain of the monotonous length of the building, or even to observe it, while even the curtain wall between this central feature and the lower steeple, with a pedimented and columned base, carrying a pedimented and columned belfry. stage which occupies the angle, is diversified by being divided between a central colonnade and two flanking arcades. Decidedly, it is not monotony that one primarily objects to in this collection of features which scarcely constitute a countenance, and in the profusion of which the architect seems almost to have exhausted his repertory of forms of the Italian Renaissance, in a "free' version of which all the buildings of the Exposition are supposed to be designed.

Of the central group of four I have already expressed my own belief that Education is the most successful. For one thing, it is the simplest. The stately and interminable classic colonnade, given the chance to do it on the grand scale, is among the most obvious of all architectural effects, but it is one of the surest alike to break in upon apathy and not to become stale by iteration. It is one of those appeals to which, as Stevenson has it, a man must be dead and buriable when he fails to respond. But to say that the building of Education displays on every front a colossal Corinthian order by no means exhausts the design of it, nor limits the merit of the designer to his selection of a motive. The very point of which we have just been speaking, the difficulty of emphasizing extent so as to make it effective without making it monotonous, in which the flank of the Transportation building by a misfortune of execution shows one kind of failure, and the flank of the building of Machinery by a misfortune of design shows another, is admirably dealt with in the building under consideration. On each of the three straight fronts the effective extent of the colonnade is the whole extent of the front, and yet each shows a centre and two ends emphasized in the design, the former a triumphal arch with a flanking and projecting order, of which the raised attic is crowned with a quadriga, the latter square and massive pavilions in which the columns of the colonnade are subdued to pilasters, so that the actual extent of the colonnade is only that of the curtain walls, and nobody is likely to complain that the fronts are monotonous on the one hand, or that they are unduly cut up and frittered away on the other. To attain this just mean so that the features of the design shall animate the expanses without interrupting them is a task to the successful performance of which there has evidently gone a deal of study. There is no question of the success here, nor that the building is a scholarly essay in a really classical spirit as well as in the conventional classical forms.

A scholarly performance likewise, is doubtless the counterparting building of Electricity. If it comes short of the success of the other, it seems that that is largely because in the boldly projected order which alternates with the large plain round-arched openings of the wall behind, on its most conspicuous front, the designer seems to have hit upon a unit of design so large as to dwarf his building, or at least to prevent it from getting the full benefit of its dimensions. The columns of the colonnade of Education, being not at once numerable by the eye are practically interminable, whereas nobody can help being aware that the curtain walls of Electricity consists of just three bays each. The pains the designer has been at to exaggerate the magnitude of the parts has the effect of belittling the whole: 600x700 feet are very respectable dimensions. But when the parts are so "scaled up" as these are, the frontage which would make them take their places as the units of an effectively extensive series would have to be greater by a considerable multiple. Moreover, the crowning features of this edifice, the terraced roofs of the terminal pavilions, rising actually or at least apparently higher than the central gable with its pediment and its big semicircular window, seem to have no necessary connection with the substructure or with one another, nor are they in themselves of attractive form or outline. Nevertheless there is a grandiosity about the performance. The building has a style of its own, and fills not unworthily its important place.

In the respects in which we have been finding fault with it the building of Manufactures offers an instructive contrast to this. Here also the architects took a unit larger and more important than that of a column as the motive of their design. Here also this is the Roman arch, framed in "orders" and the feature is on an ample scale. But the columns and the arches go very much better together than in the building of Electricity where the emphasis given to the order by its projection seems meant to emphasize its separateness from the construction it adjoins. In Manufactures, it

is so subdued as to become an integral part of that construction. With the smaller scale and the greater length of frontage, the succession of arches becomes really a series, an arcade, as it is so far from becoming in the other case, while the colonnaded pavilions of the corners and the triumphal arches of the central entrances take their places not as detached objects, but as parts of an impressive and successful whole.

The building corresponding to that of Manufactures, that of Varied Industries, is noteworthy as the work of the only architectural firm represented at St. Louis which was also represented at Chicago. The present building, however, does not at all recall the Electricity Building at Chicago, showing, for one thing, a very distinct advance upon it, and, for another, recalling another building of the Court of Honor, that of Machinery, namely. This it does unmistakably in virtue of its steeples rising from the Spanish looking dead walls of their lower stages, and flanked by the long colonnades over an arcaded basement. The effect is at once stately and animated, and one feels moved especially to congratulate the architect on the device by which he has circumvented the awkwardness of his recessed angle, by projecting in front of it a segment of colonnade. One cannot do so much by the cupola, so incongruous with the steeples of the other front, that crowns this feature, and still less by the open and bell-crowned corner pavilions that emphasize a void where there was required an emphatic solid. Neither can one at all or anywhere congratulate the architect of Liberal Arts, whose "features" are so big and so insistent as to deprive his building of a countenance. The huge size and the number of the triumphal arches of entrances would denote that the purpose of the edifice was mainly to be got into and out of, for they-dwarf into nothingness the strips of wall betwen them, while at the corners he has connected a huge monumental arch on each front by means of a round colonnade. The effect may not be more easily imagined than described, but certainly it is not easily described.

Last of the great palaces comes that of Mines, of which the effect, as has been said, cannot be judged without the color it was still, a few weeks ago, awaiting. Evidently enough, the huge overshadowing eaves that protect the walls and cast their solid shadows no more come within the most liberal construction of the "Italian Renaissance" than do the Egyptian pylons that flank the entrances. There is this marked difference between it and the Transportation Building at Chicago. The Transportation Building at Chicago was isolated. This building is part of the principal group and must be seen in connection with other buildings of an entirely different inspiration. Whatever its individual success may prove to be, it will be one at the expense of its neighbors, and at the ex-



CORNER OF THE VARIED INDUSTRIES BUILDING.

Louisiana Purchase Exposition. Van Brunt & Howe, Architects.

pense, therefore, of the general effect. Evidently that is not polite. But evidently there is more to be said about it than that one may not see the relevancy of the pylons. But one has to see that the building is a forcible and effective composition, in itself considered.

The Louisiana Purchase Exposition will be worth seeing. There is no doubt about that. There are a great many more things to be said about it. But one that it would not be decent to omit expressing is the recognition of the admirable way in which the accessory architecture has been handled in the office of the Chief of Design. The colonnaded "Terrace of the States" with its terminal pavilions is the most conspicuous example of the work of the office, but many examples of it are to be seen at every turn about the grounds, and all of them confirm the impression that in this matter the managers of the fair have been particularly fortunate.

There is a good deal to be said, too, about the subordinate buildings, foreign and domestic, particularly about the great advance that is shown since Chicago in the design of the buildings beginning with the Government Building. "But that is another story," and matter for another article.

Franz K. Winkler.



THE ARCHITECTURE OF IDEAS.

T is beginning to be more and more apparent that a number of the better architects of the West have a tendency consciously to break away from the time-honored European tradition to which their eastern brethren devotedly cleave. The statement, however, that such a tendency exists must be made with due caution and with many qualifications. It is not a tendency, which by any means stares one in the face, as one wanders observantly through the western cities. On the contrary, the new buildings, of all descriptions, which one sees most frequently seem to belong to much the same types of design as the buildings which one sees under similar conditions in the eastern cities. As has been frequently observed before, there is a "regular thing" in office-buildings, hotels and private houses, which is coming to have a prevailing influence, wherever any pretence to good design exists; and these popular types, while by no means entirely satisfactory to a well-trained eye, possess, nevertheless, an increasing fitness and architectural respectability. What is more to our present purpose, however, the popular types of buildings, which, as I have said, dominate the newer architectural landscape, are all of them more or less faithful reproductions of well-known traditional types of design. Consequently the observer of architectural conditions throughout the country will be impressed superficially, not by any divergence in the habits of design of the eastern and western architects, but rather by certain general similarities.

It is true, nevertheless, that there is a group of western architects, resident chiefly in Chicago, who are, as I have said, departing from the allegiance to the strict European tradition which prevails in the East. The number of the protestants is not as yet very great; several of the architects whose work shows the influence of the different ideal arc by no means consistent in their devotion thereto; and the different members of the group differ considerably in the extent to which they push their search for an original vehicle of expression. In the cases of some of them the desire to free themselves from tradition does not go much further than a search for irregularity in exterior design and for certain novel details in the interiors. Others have become absolutely revolutionary in their ideals and in their technical machinery. They are seeking to make one big jump from a condition of stylistic servitude to that of irreverent and self-assured independence. They do not seek originality, however, as the "great American architect" once did by combining a number of traditional types into one incongruous architectural hodge-podge. The radicals among the group are seeking for a rational and consistent basis for American design and ornament. The more conservative are merely seeking to reduce their debt to the European tradition to a few fundamental forms and to work out on the basis of those forms some new types of design. For the most part the movement is marked by moderation and good sense.

It is natural that some such departure should be made in the West, because the western architect does not, as a rule, handle the traditional European architectural forms with any very zealous sense of the peculiar values of those forms. So far as the East is concerned, it is undeniably true that the great successes have been made by architects, who were capable of designing thoroughly well along strictly conventional lines. These architects have been fully equal to the task of taking any one of the several Renaissauce domestic styles, and of reproducing in the American embodiment of the type some of the vitality and flavor of the original, so that the American reproduction has an effective presence and a permanent carrying power of its own. They have caught, that is, something of the spirit of the periods wherefrom they borrow, and can make their buildings, both inside and outside, a great deal more than academic imitations of European types. So far as the exteriors are concerned, they can frequently give that appearance of measure and balance to the elements of the composition, without which the various Renaissance forms are lifeless; while at the same time they can impart a certain freedom to the design by the adaptation of some of the important members of the composition to local American needs. So far as the interiors are concerned, they have acquired the power both of reproducing with some charm of effect the formal French styles of interior decoration, and of rehandling the materials used by the old French and Italian decorators in an idiomatic manner—with the result sometimes of making genuine living-rooms out of the remnants of rooms in European castles, palaces, churches, halls and galleries. Like thrifty business men, they justify their borrowing by the fact that they make their loan yield a good deal more than the interest charges. So far as my observation goes, the western architects have not shown the same power to anything like the same extent. The attempt to get the quality of measure and balance into the exterior of buildings designed under the influence of classic models does not seem to go beyond symmetrical duplication of the several parts of the building, the resulting effect being both loose and stiff. Neither are they very much more successful with the interiors, when these interiors are wrought of similar materials. In the first place, their clients, the well-to-do western gentlemen

for whom the houses are built, do not seem to demand the use of European styles and remnants to the same extent as do the eastern owners of expensive dwellings. They are content with homemade furniture and fabrics, and when they do ask for an interior designed along the same lines as that, say of the Whitney house in New York, they cannot get it, or, at least, they have not got it in any of the houses of this kind, which the writer has seen. The western architects do not seem to have a lively sense for this sort of thing. They have never gained touch with the tradition that endows it with life and meaning.

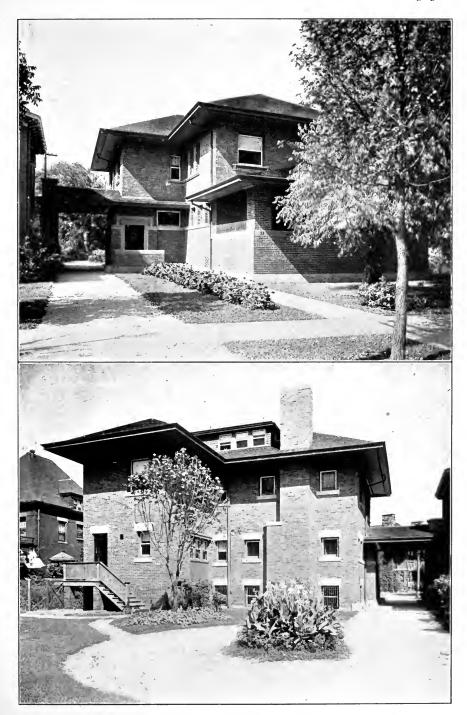
It will probably prove to be a fortunate thing for American architecture that such is the case. In a country, such as the United States, which is in the process of making and naturalizing its local architectural traditions and forms, it is a good thing both that some of the leading practitioners should intentionally cleave to the standard authoritative historic styles, and that others should propose, also intentionally, to depart from strict allegiance to the time-honored tradition, and to substitute types of design that have a manifest local propriety. These two ideals of design seem to be exclusive; but both are as necessary to the steady progress of American architecture as are a conservative and a liberal party to a healthy political organism. The two sets of ideas will prove to be supplementary—provided both of them are sincerely and intelligently adopted, and are applied with a high sense of technical honor. What American architecture needs very much more than devotion to any one group of forms is devotion to an uncompromising technical standard. When such a standard prevails, and brings with it all that it implies, the forms will take care of themselves.

The group of western architects, whose work shows a conscious attempt to break new ground, are most assuredly sincere and intelligent designers possessed of a sufficiently high technical standard. Their work is inevitably more uneven than is the work of the eastern architects who stick more closely to the "regular thing;" it is not calculated to please people, whose point of view makes them unsympathetic with architectural experiments; yet, nevertheless, it has a quality and effect which can only come from a thoughtful and conscientious attempt to devise forms which are appropriate, novel and striking. The forms which they devise occasionally suggest the influence of the "New Style," which is so popular abroad; but when this is the case the suggestion points rather to the German than the French variety of that movement. For the most part, however, it borrows little either from "L'Art Nouveau" or the "Jugend Style." It really derives its momentum and inspiration chiefly from the work of Mr. Louis Sullivan, and

from a very able architect, who issued from Mr. Sullivan's office, Mr. Frank Wright. But it is still too young to have a history, and probably ten years must pass before any very intelligent estimate can be placed upon its value. In the meantime its significance as an attempt to meet a real need both of local and of general American architecture should be recognized and be allowed its full credit.

In order to give some idea of what this group of architects is doing, there are reproduced herewith photographs of four houses which have recently been erected in or near Chicago. Two of these houses were designed by Mr. George Maher and two by Mr. Richard Schmidt. It would be going too far to say that these houses are thoroughly typical of the movement to which attention has been directed, because this movement is a very composite thing, and includes a variety of new tendencies. But while not claiming that these houses are thoroughly representative, it is none the less true that they typify fairly well, on the one hand, the extremely radical phase of the new movement, and on the other, the phase which is content with a more modest ideal and a less uncompromising rigor of rejection.

Of the four houses, that of Mr. L. Wolff, Jr., designed by Richard Schmidt, exhibits probably the new movement more nearly at its best. The general character of this design obviously owes a great deal to the work of Mr. Frank Wright, and this is as it should be, for Mr. Wright is the most thoroughly and sensibly original among the vounger men. One marks immediately the very simple and rational method of the exterior design, the frank treatment of the materials, the exclusively utilitarian situation of the openings, the almost complete rejection of detail and ornament, and the manifest seeking for structural honesty. The architect is evidently thinking in terms of masses, of surfaces, and of light and shade. He is looking, that is, for a well-massed structural effect, the surface of which shall express the color value of the brick, and which shall at the same time be made a little spectacular by the bold shadows east by the overhanging roof. All this is very good; but it must also be remarked that the simplicity of effect, just because it is obtained by such a process of rejection, has within limits the danger of becoming the simplicity of attenuation. The rejection of the classic precedents has gone so far that proportion and symmetry are secondary elements. It is very well to think in terms of masses and surfaces and it is probably better to do so than to stick to the current practice of interpolating detail for the sake of composing it; but there should be enough detail to afford some chance of effective proportion, some chance of that simplicity which results from the perfectly achieved organization of a wealth of structural and ornamental members.



RESIDENCE OF L. WOLFF, JR.

Hazel Avenue, Chicago.

Richard Schmidt, Architect.



INTERIORS IN THE HOUSE OF L. WOLFF, JR.
Hazel Avenue, Chicago. Richard Schmidt, Architect.



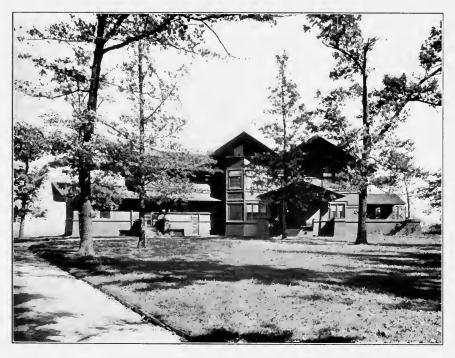
INTERIORS IN THE HOUSE OF L. WOLFF, JR.

Hazel Avenue, Chicago. Richard Schmidt, Architect.

In passing to the interior of Mr. Wolff's house, one is impressed by the same seeking for an honest simplicity of effect. In this case the architect is obviously pre-occupied chiefly with the surfaces of the walls and panels, and the colors whereby they are decorated. Wherever he can he tries to get large surfaces, which are never figured or disfigured with paper, but if not paneled, are tinted with some solid color. At the same time these wall surfaces are made interesting by a well-designed base and cornice, and by a treatment of the woodwork around the openings which gives these spaces a varied and appropriate framing. The paneling, wherever it is used, is also designed with the utmost discretion, the scale of the mouldings and depressions being admirably appropriate. In short, the desirable simplicity of effect has been obtained without as many sacrifices as the architect felt impelled to make on his exterior, and the result possesses not merely integrity but an open and comfortable charm. The only jarring note in these rooms is the furniture. Some of it has evidently been designed for the house, although without very much success, but in other cases—as, for instance, the piano, several of the ponderous stuffed chairs, the stool with the palm on it, and the elaborately carved piece in the hall—in all these cases the style of the furniture disagrees with that of the house; and it becomes evident at once that people who wish houses designed in this style should be prepared to make a clean sweep of their customary household belongings. The ordinary modern Colonial, Italian and French furniture is for the most part entirely out of place in such rooms as these.

The other house, of which Mr. Schmidt is the architect, that of Mr. Chas. Thorne, possesses some of the same characteristics, but the result is decidedly less successful. It is a frame structure, designed with the same disregard of proportion, and with the same bold effects of light and shade, derived from the projecting eaves. There has been a manifest attempt also to give the material something of its proper value. The house presents a gay, picturesque and fragile appearance. The sharp mouldings which frame the clapboards in as if they were panels, break the surface of the building and intensify the dominant lines at that point. But the effect is none the less bizarre and confused. Neither is the interior as pleasing as in the case of the other house. Here again Mr. Schmidt has given a spacious effect, and has kept his abundant wall surfaces bare of paper; but the woodwork is much less interesting, and the stenciled design which he has placed above the shelf in the drawing-room is unpleasantly frivolous. In this case also the furniture which apparently is "Grand Rapids Colonial," does not harmonize with the style of the decorations and leaves an uncomfortably jarring impression. Doubtless many of the differences between the two houses are directly traceable to the fact that in one case the architect had more money at his disposal than in the other; but in the second case the smaller resources might assuredly have been better used. Evidently in designing in this unconventional manner, an architect may easily lose his clue and go pretty well astray, for he has nothing to correct an error but his own taste; and personal taste, even with the most gifted men, is often a doubtful support.

If Mr. Schmidt represents a moderate version of the new movement, Mr. Maher evidently stands for its most revolutionary ex-



HOUSE OF CHAS. THORNE.

Winnetka, III.

Richard Schmidt, Architect.

treme. He is assuredly the "new architect" in his most garrulous and candid moment. He has not been afraid to design houses, which would impress any eye, not merely as extraordinary, but perhaps as grotesque; and in so doing he stands alone, for the other architects this group are much more discreet in their innovations. Personally I prefer in this matter the quality of discretion to the quality of courage; but Mr. Maher's courage, if it makes him more dangerous as an example to imitate, also makes him more serviceable as an example to study and consider—particularly when



INTERIORS IN THE HOUSE OF CHAS. THORNE.

Richard Schmidt, Architect.

we have what may be taken to be an official expression of his artistic creed. An admirer of his writes as follows:

"A gratifying example of art from the philosophical standpoint is offered in the work of Mr. Geo. H. Maher, of Chicago. Casting tradition to the winds, this artist presents a system which is at once novel and enduring. . . . He is a champion of rational æstheticism, and holds that the expression of art, to be consistent and therefore idealistic, from its very nature can never be identical in any two localities. Environment and local conditions are the leading indices." Let us see what sort of a building the philosophic architect will conceive.



INTERIOR OF THE HOUSE OF HARRY RUBENS.

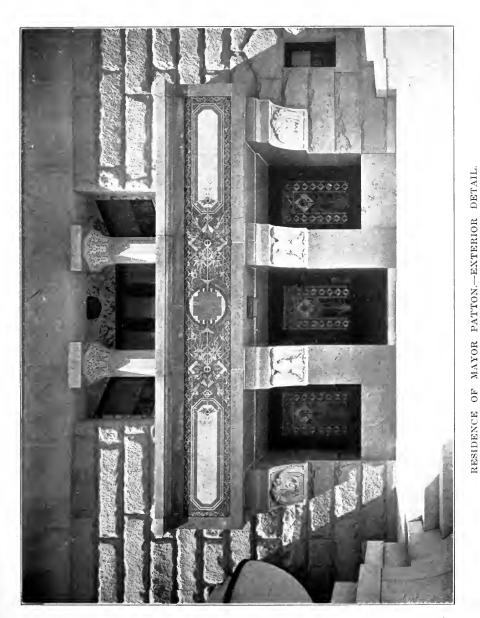
Glencoe, Ill.

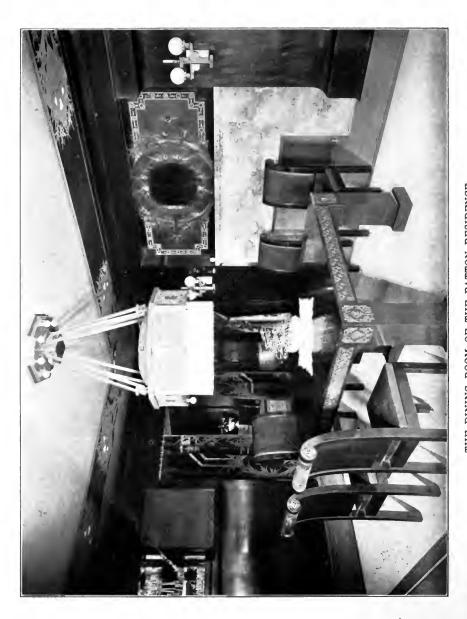
Geo. Maher, Architect.

The Hollybock as a "Floral Emblem."

The best opportunity which Mr. Maher has had to give expression to his system of rational æstheticism is contained in the house designed for Mayor Patton, at Evanston, Illinois; and, indeed, a better opportunity has rarely been offered to any architect. I have already remarked how important it is that the "new architect" should have the chance to design everything about a house, inside and out; and this is just the chance which Mr. Patton has







placed in Mr. Maher's hands. Consequently, in this instance, unlike so many others, the responsibility for satisfactory results or the reverse belongs exclusively to the architect.

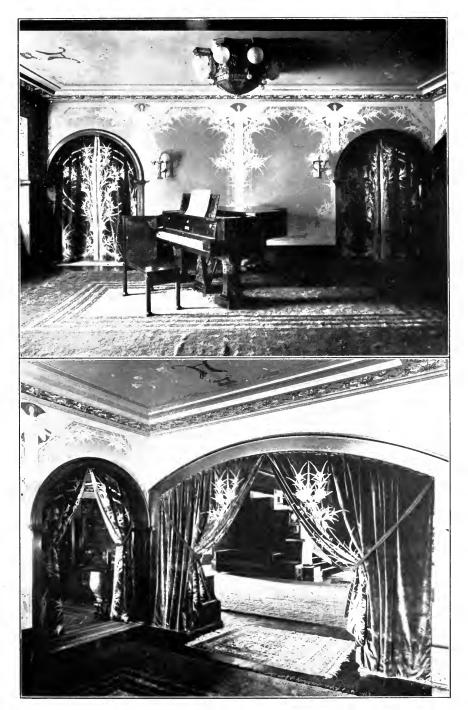
The first impression which the untutored and undisciplined observer obtains from the Patton House is not very exhilarating. It strikes one as a heavy, gloomy, chunk of a building, with depressing reminiscences in its appearance of such primitive architectural achievements as Pelasgian masonry and Egyptian sarcophagi. But mingled with this unfavorable impression is the consciousness that to dismiss it with such words on one's lips would not be fair to Mr. Maher. We are dealing with an architecture of ideas, which is struggling not very successfully at formal expression; and it is only fair that the idea should be considered as well as the incarnation. Even though ugly and clumsy in appearance, such a building may, at least, have the intellectual integrity, the "rational æstheticism" of art from "a philosophical standpoint," and an interest of this kind, a closer examination, most assuredly proves the design to have. It assuredly has the value, for instance, of a very honest piece of stone masonry, with the structural value of the granite almost painfully emphasized by the huge, rough, flat blocks of which it is constructed. The ruggedness of its effect is modified by the smooth and restful stone base and cornice, which provide the only pleasant lines of the building, and do more than anything else to give the design distinction and unity. In spite, however, of the honesty of the stone work, the total sacrifice of scale to massiveness of effect, which the building exhibits, remains unappeasably disagreeable. It reminds one of the figure of a man whose arms and legs are swollen, so that no matter how bold his muscles are, or how vigorous the whole effect of his strong body, that effect is spoiled by the disproportion of certain salient parts.

All the ornament on the exterior of the building is concentrated on the balcony above the entrance door, and it is significant that this ornament consists almost exclusively of a superficial carving and mosaic and some beauty of effect and originality of design. It is this fact that the ornament is designed, instead of being merely copied, which gives the ornament its best promise, In this respect Mr. Maher is, of course, frankly the follower of Mr. Louis Sullivan, and he follows him, not merely in seeking for original ornamental forms, but in confining his ornament mostly to surface treatment. Perhaps this is necessarily the case with architects who seek to depart from the classic forms; but if so, it means, most assuredly, a relation between the structure of a building and its decorative detail, which is as objectionable in one way as is in another the more general practice of designing apparently



THE RESIDENCE OF MAYOR PATTON.—WOODWORK IN THE HALL AND DINING ROOM.

Evanston, III.



INTERIORS IN THE RESIDENCE OF MAYOR PATTON.

Evanston, Ill.

Geo. Maher, Architect.



RESIDENCE OF MAYOR PATTON.—WALL DECORATION.

Evanston, Ill. Geo. Maher, Architect.

structural members for merely decorative purposes. This superficial ornament is not architectural and lends the architectural effect of the building little assistance, so that the architect is thrown back, as has already been observed, chiefly upon masses of his building and the surface value of his material; and any attempt to bring the composition into close relation to the material could result only in substituting for the block-like simplicity of the best of the present architecture of ideas a freakish irregularity of design.

It is on passing to the interior of the house that one begins to realize the full proportions of Mr. Maher's enterprise. The decorative motives suggested on the interior of the building have been carried out on the inside with incorruptible consistency. part of Mr. Maher's creed that the ornament "should be identified with some floral element of the locality to which he is confined, recognizing that the leading flower of a neighborhood is nature's symbol of the spirit out-breathed there." The "floral element of the locality" to which Mr. Maher was confined in the case of the Patton residence is the thistle, a motive which is varied ingeniously to cover large areas of wall, to surmount mantelpieces and side-boards, to figure curtains, and to supply decorative borders to wall surfaces tinted in solid colors. Some of these designs are in themselves very beautiful, and one cannot help attributing to the architect, who is capable of handling such a motive with so much variety, so much originality and in a sense with so much propriety, very unusual powers of design. The effect of the ornament is in other cases somewhat explosive, as if a shell had burst, and was blowing the "floral element" all over the wall; but for the most part it is handled with a good deal of restraint. One cannot say as much that is favorable of the hectic angel, into which the stem of the thistle flowers in specified places. The sort of thing is so extremely jarring to the writer that he can scarcely consider it with decorum and patience. To my sense she is merely ornamental impertinence, which would become intolerable as steady company, and which is an example of the worst solecism which the architecture of ideas can commit.

There is less woodwork than in many houses of this class—the hall and dining-rooms being apparently the only apartments in which it prevails. Wherever used, however, the dimensions of the members designed in this material are framed on a scale, which is much more appropriate to a bar-room or a hotel than a private house. Mr. Maher, indeed, has throughout kept his structural members extremely massive, while his ornamental "elements" have been made almost aerial in their lightness. Even the furniture is chunky and heavy—too much so for the taste of most people,



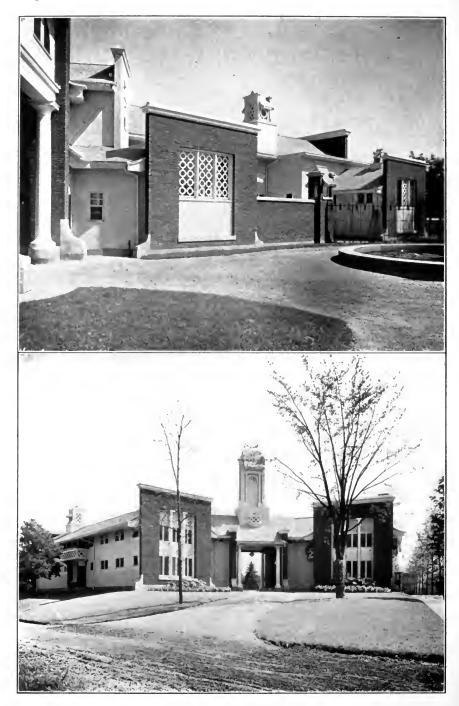
INTERIORS IN THE RESIDENCE OF MAYOR PATTON.

Evanston, Ill.

Geo. Maher, Architect.



THE HOUSE OF HARRY RUBENS.



THE HOUSE OF HARRY RUBENS.

Glencoe, Ill.

Geo. Maher, Architect.

but none the less very cleverly designed from the architect's point of view.

It is very difficult for the writer to pass upon the effect of the interior as a whole, because, as I am bound to confess, I am commenting on the house with nothing but the photographs before me; and obviously much if not most of Mr. Maher's effect depends upon his colors. Furthermore, it is probable that the photographs over-emphasize the excessive scale of some of the parts. Nevertheless, one cannot help remarking that the architecture of ideas, when embodied in such a fashion as this, places even a heavier responsibility upon the owner and occupier of the house than upon the architect. Just think of living in such a thorny environment! Think of being constantly entangled in such a system of "rational æstheticism!" Think of trying to establish one's household gods in such a temple of artistic puritanism! One could scarcely buy an ornament or place some flowers on a table, or cover a cushion without the danger of producing a jarring effect -as may be seen from the cushion on the lounge in the study, the one homely detail in the whole austere interior. Evidently the architecture of ideas is intended for clients, who are willing to trust their architects absolutely, and who are prepared to make great sacrifices for the good cause—from which we may conclude that the real hero of this architectural enterprise is even more Mr. Patton than it is Mr. Maher.

Finally we come to the house of Mr. Rubens, at Glencoe, Illinois, designed also by Mr. Maher-in which it must be straightaway admitted that the architecture of ideas goes to seed. Indeed, this house or group of houses makes one wonder what the difference is between "rational" and irrational æstheticism, for to all appearances nothing could be more irrational than every disposition and detail of these structures. One feels impelled to ask the question "why" about everything one sees. Why run up rectangular walls against a peaked roof? Why construct these walls of brick, while the other walls are constructed of concrete? Why put a roof on a post and give it the appearance of being inhabited? Why make all the lines of a building angular except a few of the openings, and then use circular window sashes and balcony decorations. How is the room under the tower reached, and what sort of plan can the interior of such a group of buildings have? Why anything and everything? Doubtless, some reasons may be alleged for these perverse dispositions, for this is an architecture of ideas, and Mr. Maher has evidently put plenty of them in this design; but in this instance, at least, the appearance of the building is devoid of architectural reason or propriety. The architect has broken away from the safe method of designing a good solid block of a house with

plain, honest walls, and has attempted to construct some kind of a decorative scheme. The result is simply grotesque, and leads one to hope that the "new architect" will henceforth keep his decoration superficial. This sort of thing is, of course, the great danger of architecture "from the philosophical standpoint," which substitutes ideas for traditions, and originality at any price for the authenticity of time-honored forms. The revolution which it endorses comes perilously near to anarchy. It cannot establish any authority in place of the one which it is trying to overthrow, and some kind of authority, some recognized form which can be taken for granted, is as necessary to good art as it is to an established society. The moral is, not necessarily that architects should not try to depart somewhat from the European tradition, but that the departure should be made gradually, and with the purpose not to be unscrupulously original and American, but to design beautiful and appropriate buildings.

Arthur C. David.



WHITEHALL

THE RESIDENCE OF H. M. FLAGLER PALM BEACH, FLORIDA

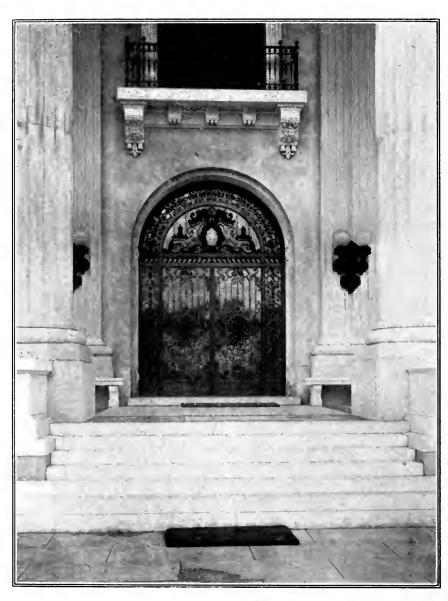


CARRÈRE & HASTINGS

ARCHITECTS

THE EXTERIOR OF "WHITEHALL."

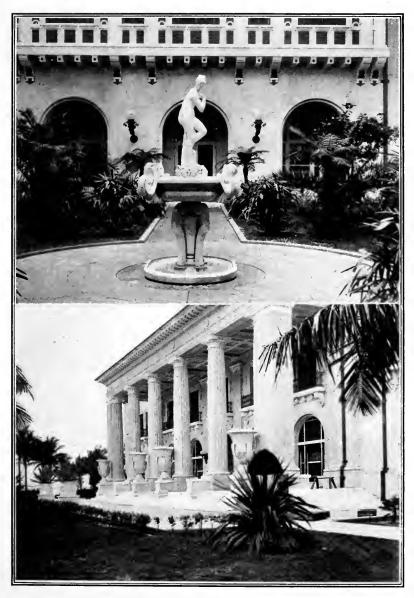
ENTRANCE GATES OF "WHITEHALL." Residence of H. M. Flagler, Palm Beach, Fla.



ENTRANCE DOOR OF "WHITEHALL."

Residence of H. M. Fiagler, Palm Beach, Fla.

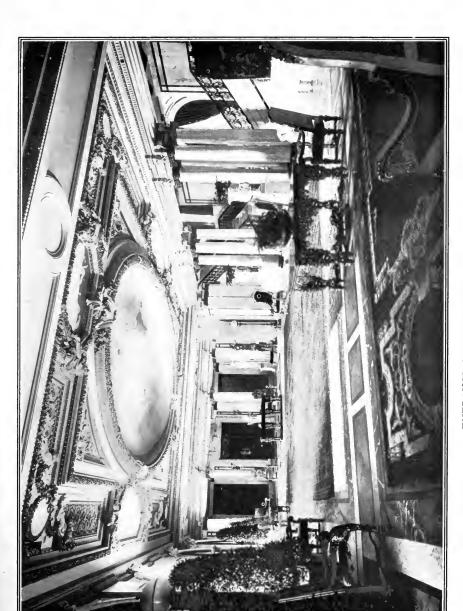
Carrère & Hastings, Architects.



THE COLONNADE OF "WHITEHALL" AND ITS COURT.

Residence of H. M. Flagler, Palm Beach, Fla. Carrère & Hastings, Architects.



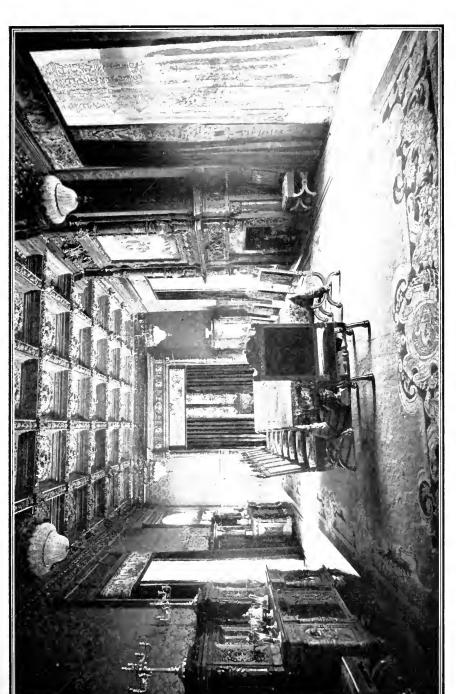


ENTRANCE HALL OF "WHITEHALL." Residence of H. M. Flagler, Palm Beach, Fla.

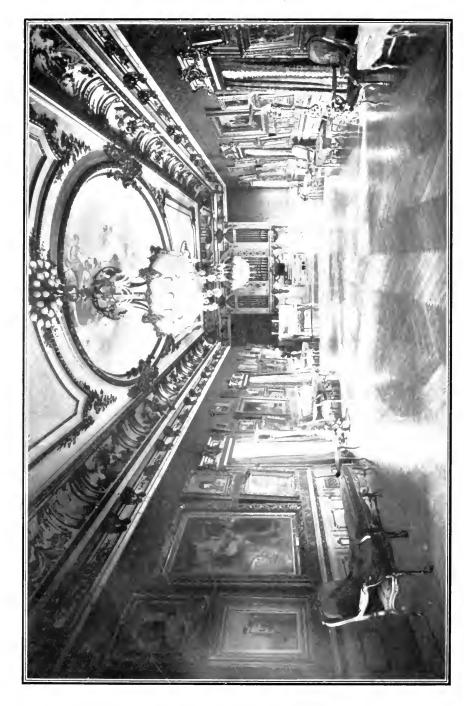
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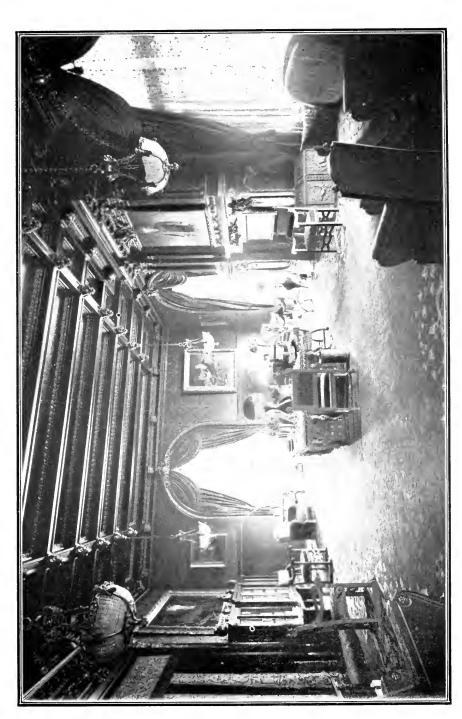
Residence of H. M. Flagler, Palm Beach, Fla.

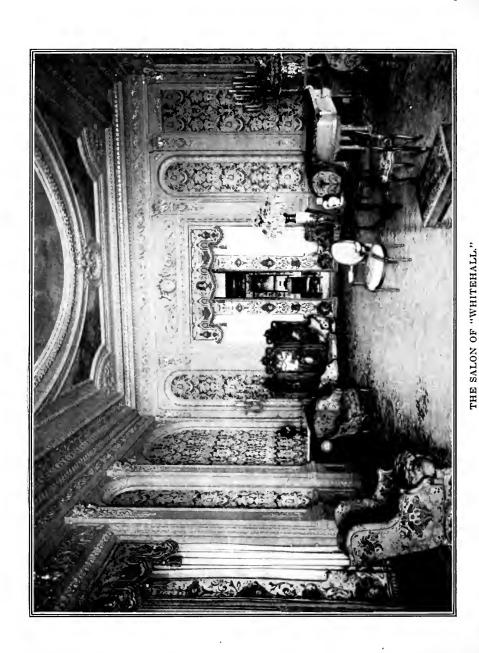


Carrère & Hastings, Architects.



Carrère & Hastings, Architects.





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No. 5.

THE WORK OF MESSRS. FRANK MILES DAY & BROTHER.

HILADELPHIA is a city of astonishment: with a political tradition second to none, it has developed a condition of political depravity without an equal in a land singularly prolific in products of this nature. Purest in blood of all the greater American cities, with a solid foundation of honest and sturdy stock, it seems now to be the one municipality in the country where the forces of rectitude and reform are a negligible quantity. Blessed with an early architecture of the very best type developed on this continent, it sunk first of all to a condition of stolid stupidity almost unparalleled, then produced at a bound a group of men of abundant vitality but the very worst taste ever recorded in art, and then amazed everyone by flashing on the world a small circle of architects whose dominant quality was exquisite and almost impeccable taste, men who produced work of infinite refinement, who had the faculty of instilling their own high principles into their followers, and who have established a school of practitioners who resist steadily and serenely the tendencies to bad taste that for the moment have the call in the profession and with the public.

It is useless to seek for an explanation, for none is adequate. There are the facts; what to make of them we do not know, but we can at least be grateful for a notable mercy.

In the XVIII. century a type of architecture was developed in and around Philadelphia of very singular beauty. It was perfectly frank, simple, direct. Blessed with good brick and a building stone of unexampled charm, the early builders modified their inherited tradition to adapt it to local conditions, and as a result the farmbuildings of Eastern Pennsylvania became quite worthy of comparison with similar work of a century earlier in England and on the Continent. What is there in the United States more charming as an example of vital architecture than the dwellings and barns of the vicinity of Philadelphia? Frank and simple in form, the

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texture and tone are fine to a degree, while there is that wonderful quality of picturesqueness that is almost wholly absent from similar work in New England and the South. A spacious and noble dignity, high-bred and aloof, is characteristic of the latter; delicate and sensitive detail, the mark of the former; but of picturesqueness of composition and charm of texture and color there is almost nothing in either.

In spite of this fine tradition, this environment that surely should have worked towards a persistence of type, Philadelphia in the middle of the XIX. century was producing by the mile a kind of architecture that was the very limit of dull formality, far worse in every way than the grave and reminiscent brick-work of Boston's Beacon Hill or even than the much scorned "brownstone front" of New York.

Then came the next transformation, and a new wonder was wrought on earth. The historian of the Philadelphia reign of architectural terror is vet to arise, but he is much to be desired, for the astonishing phenomenon that followed is well worthy of serious consideration. Bad it was, with a degree of depravity not to be measured in words, but this was not all. Underneath the evil was, I believe, a serious and laudable purpose, and the men who had their will in the Quaker City during the seventies and early eighties were entitled to something besides bitter or scoffing condemnation. Consider two buildings for example, chosen almost at random; the Library of the University of Pennsylvania and the Unitarian Meeting House in Chestnut Street. At first sight one sees only inflexible, unvarying bad taste. Well; the bad taste is there, all one could possibly claim, but besides this is something else that is more radical and demands our sympathy, or at all events our considerate recognition, and this is Personality. Bad taste is like a club-foot or a hare-lip; it is a misfortune, not a fault; it marks individuals, for example, the artistic "sans-culottes" of Philadelphia, or even whole races, as the French architects and painters of to-day. Yet a man with a club-foot and a hare-lip may be a gentleman, and a man or a race blighted by bad taste, may yet come nearer to solving the fundamental problems of artistic creation than the most consummate disciple of Walter Pater.

Bad taste is, to me, a salient characteristic of modern art in France. Yet, to take one branch of artistic creation alone, architecture, we find there a more profound sense of the basic principles of this noblest of arts, a more logical sense of its functions, its laws, and its method of development, than can be discovered in any other contemporary country whatever.

Therefore, in jeering at the Furnissic Revolt, let us remember this; that its founder and its disciples tried to be something besides



FIG. 1.—TERRA COTTA DETAIL, HOUSE OF H. K. CUMMINGS.

Germantown, Pa. Frank Miles Day & Bro., Architects.

cheap copyists, tracing their working drawings from Vignola or LeTarouilly or Welby Pugin; they tried to be live Americans, not dead archæologists; they sought for vitality, originality, personal and ethnic expression. If God had given them good taste they would have succeeded beyond belief; as it was they failed, and their works do follow them; but in their failure was more of honor than accrues to their better bred contemporaries and successors who could see no further than the steel engravings of classical "Fragments" and mediaeval "Remains."

Some of Philadelphia's vicissitudes are inexplicable, not so the next development which followed inevitably. The salient sin of the last third of the century was against good taste; in opposition to this was raised up a group of men predestined to be the exemplars of good taste. The city never did anything by halves, and the awful taste of the "seventies" engendered the delicate sensibility of the "nineties." Within the space of a very few years four new men became active, and in the following sequence, Wilson Eyre, Cope & Stewardson and Frank Miles Day. These four became one voice crying in the wilderness, a voice proclaiming artistic salvation through the doctrine of good taste.

Mr. Eyre's work has already been considered in these pages; it falls to me to deal with that of the other two firms. In a way, however, it is almost a mistake to treat of these three separately, for their crusade has been one work, their activity has been simultaneous, their sympathies identical, their personalities closely allied, while in one instance the three firms came together to produce what seems to me the most significant structure resulting from the enforcement of the principles for the establishing of which they have been allied.

One thing we must postulate of all as of each, this same good taste of which I have spoken so continuously. Each firm is varied, each differentiated from the other by certain degrees of stress laid on certain qualities by the several firms. In the one characteristic

named above they meet on common ground. Yet even here there is a difference in degree, and Mr. Day and his brother stand forward pre-eminently as the apostles of refinement and sensibility.

The keynote is struck at the outset in the Art Club (Fig 2), unless I am mistaken the first important commission ever given Mr. Day. It is an enthusiastic revolt against the sort of thing that is lined up beside it in the photograph and against the bizarre productions of the men at that time in the fullness of their very surprising powers. It is also the unmistakable work of a young man



FIG. 2.—THE PHILADELPHIA ARTS CLUB.

Broad St., below Walnut St., Philadelphia.

Frank Mlles Day & Bro., Architects.

just back from Europe, and a file of sketch books is the manifest source of inspiration. Detail is lavished with a prodigal hand; variety and picturesqueness were sought at any cost; here was a chance to do a good deal, and it was done, and very thoroughly. As a result, calmness, reserve, simplicity are lost and the building fails to this degree. But consider the year, the locus. It was a manifestation of delicacy and sweetness, of fine instincts and subtle sympathies. Weak it is in mass, composition and scale, but every line of it is as refined and sensitive as possible. Too much so, of course; exquisite ornament is not all of architecture, indeed it is not even a necessity, but when it comes it is a boon, particularly when it is as

charming as holds in the present instance. Above all this building marks the entrance of a new influence in a devastated field, an agency of good taste. This is the beginning of all things, a solid foundation, and much may be builded thereon, though this may not follow inevitably.

In the case of the Art Club, French and Italian influences are dominant. In the house in 17th Street, and the block of residences in West End Avenue, New York (Fig. 3), which shortly followed, the sketch books from Holland and Flanders are more in evidence,

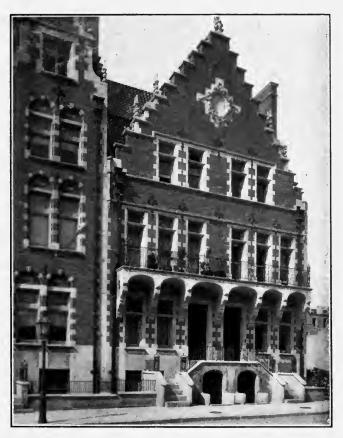


FIG. 3.—RESIDENCES ON WEST END AV. AND 94TH ST.

New York City. Frank Miles Day & Bro., Architects.

and they show a keen eye for choosing the good over the bad and for assimilating this good very thoroughly. In all these buildings there is not only a strong sense for beautiful ornament, for engaging picturesqueness, but as well a new feeling for color and for texture of surfaces; the brick is chosen with scrupulous care, the stone is judiciously placed for the obtaining of what the Japanese



FIG. 4.—BUILDING OF THE AMERICAN BAPTIST PUBLICATION SOCIETY.

Philadelphia, Pa.

Frank Miles Day & Bro., Architects.

would call "notan." With years Mr. Day has learned that salvation is not by fine line alone, but by other and more important matters, yet his feeling for color and texture has persisted, growing stronger every day, until the crowning result is to be found in that building where all three firms met on common ground and in a common work.

It is very interesting to watch an architect "find himself," particularly in the case of Mr. Day, where the process is perfectly logiical, entirely continuous, and, if one may venture the prophecy, not yet completed. Beginning with a very evident and equally dominant passion for fine line, graceful ornament and delicate colors, consciousness of composition, mass and the co-ordination of parts is a matter of subsequent growth. We find the first evidence of this in two important structures, the office building for the American Baptist Publication Society (Fig. 4) and Horticultural Hall. The former may be called a creation; it is elaborate, ambitious, magnificent. The idea of an office building as an utilitarian entity, postulating an entirely new set of architectural principles developing from a peculiar function entirely without precedent, had not yet suggested itself. Indeed, it was to wait many years yet, and until Mr. Sullivan could work out his logical and original theories. In place of this was the old tower idea; a solid and somewhat elaborate base, a plain and simple shaft, and a topping out of all kinds of splendor; an efflorescence of ballustrades, dormers, pinnacles and diaper work.

Grant the primary assumption and it is magnificent; rich, florid, sumptuous, yet in excellent taste. The composition of the splendid crown is admirable, the ornament conscientiously studied, beautiful in itself, and judiciously placed. It is hardly logical in its expression of function however, and must count as a very beautiful milestone in a progression then only begun, and even now not yet at its term. Two points are worth noting in this connection. The first is that in designing high buildings the upper stories are not the place for elaborate ornamentation; in this respect the building is in error. The second is that it is not the mark of an educated architect to lavish his luxury on the street side of a given building, treating his party walls as matter of no concern, at least he cannot do this unless he is coerced into such action by a conscienceless owner and after his own solemn protest; in this respect the building is admirably right. As matters now stand the sides of this structure are ten times more conspicuous than the front, and actually they are better in design. Here is a mark of serious purpose, of conscientious principle, of thorough good taste on the part of the architect that demands high praise.

The problem is somewhat difficult; in time these same party walls

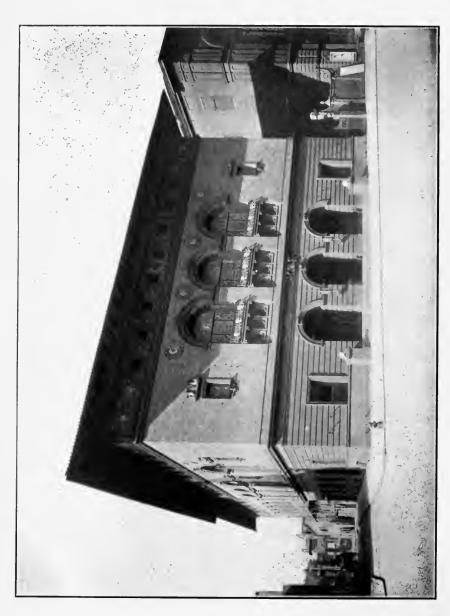


FIG. 5.—HORTICULTURAL HALL. Broad Street, below Locust Street, Philadelphia, Pa.

may be entirely hidden by adjacent buildings; again they may not. If they stand revealed ten years, or five, a little money and a little thought given to the side walls, are well expended. I have one case in mind which is somewhat exaggerated perhaps, but it seems to point a moral. There is in Boston a certain building with a main frontage on a narrow but important street; a second side gives on an open space full of trees and sunlight, a space that will forever remain open, though it is not a public square. From the main point of view this subordinate façade is conspicuously in evidence while the street front is seen only in the steepest perspective and is therefore most inconspicuous, except so far as its two or three lower stories are concerned. Now the almost invisible front is treated with the utmost care, the material is expensive, the windows well proportioned, the mouldings around them well thought out. But the other side, the one that stares you in the face, that never can be hidden, and that rises from a lovely base of grass and trees and shrubs, this is scamped and ignored, built of the cheapest brick, cheaply painted, with factory windows punched in the crude walls, and with boiler flues rearing their hideous length and galvanized iron bay windows of the baldest type as the only ornament.

Either the architect or the owner is to blame for this, and in either case the blame is ponderous, the offence egregious. This is not architecture at all, it is—Heaven knows what—jerrymandering perhaps; certainly it is not art.

I speak of this matter at length because it seems to me that the radically different treatment accorded the Baptist Building proves the point I wish to make in the case of Mr. Day; that whatever mistakes he may make, superficiality and errors in taste are not among them.

Horticultural Hall (Figs. 5 and 6) is to me about the best thing Mr. Day has done, working that is, alone. In detail it is just as delicate and lovely as the earlier work, but this detail is more carefully used, and disposed with far greater craft; while the primary importance of strong and simple composition, with a just disposition of voids and solids, has evidently impressed itself on its designer. The building is thoroughly delightful in its mass and its general composition. Nothing appears that does not justify itself by its inherent beauty; archivolts, mouldings, medallions, balcony fronts, all are studied to the last degree; and as a result one has the same impulse to sit down before it with sketchbook and pencil that manifests itself in Italy.

I am aware of the current theory that subordinates abstract beauty in detail to scale, relation and accent. This may be perfectly right, in a measure it certainly is, but surely these desiderata need not exclude the element of beauty. Walk up Fifth Avenue from Madison Square to the Park in New York City and you will see that as a general thing it does; not always, but as a rule. Now in the earlier of Mr. Day's buildings beauty was allowed to destroy scale. This is particularly true of the Art Club and of the Baptist Building, but it is not true of Horticultural Hall nor of the work now in hand. Here was a lesson learned with years, with years also the prophets of the new theories will learn perhaps that strong



FIG. 6.—HORTICULTURAL HALL—INTERIOR.

Broad Street, below Locust Street, Philadelphia, Pa. Frank Miles Day & Bro., Architects.

and powerful detail that is thoroughly in scale may yet be intrinsically beautiful.

In one aspect Horticultural Hall is not wholly successful, and this is a point to which its designer evidently gave the deepest thought; I mean its color. Mr. Smith's frieze is exquisite, the manner in which gold and pigment work down through the medallions, windows and balconies to the little shield over the door is very wonderful and itself perfectly competent, but the general tone, like that of the Baptist Building, is hot and almost uncomfortable; reds and yellows and sultry browns have proved themselves undesirable as the fundamental tones of architectural compositions, and for some mysterious reason a lower and soberer key alone justifies itself; even red brick, which is as good a building material as was



FIG. 7.—RESIDENCE ON LOCUST STREET.

Philadelphia, Pa.

Frank Miles Day & Bro., Architects.

ever invented, demands much gray mortar and light, cool-colored trimming stone to bring it down to the requisite pitch.

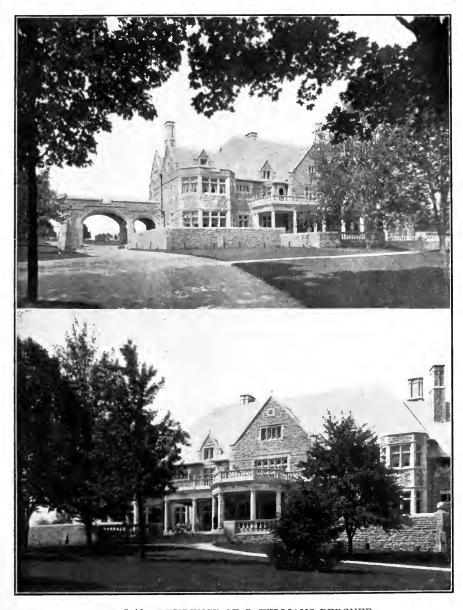
In this respect only the intensely interesting and very successful house in Locust Street (Fig. 7) seems to fail. As a piece of composition, as a study in proportion, it leaves absolutely nothing to be desired; the brickwork is admirable, the ornament intrinsically beautiful and perfectly placed; on the other hand the trimmings are of rich red sandstone and the color effect is therefore somewhat cloving and lacking in the vigor and accent that are very necessary.

Like all of Mr. Day's domestic work, this house is personal, individual and marked by just the right ethnic suggestion; not the only ethnic suggestion, but one of them. Messrs. Cope & Stewardson, in their more recent work have taken over the Colonial of Pennsylvania and, glorifying it, have made it living, local and logical. Mr. Day and his brother have harked back to the preceding English work and with this as a basis have produced something that is quite equally justifiable though its origins are so far removed in space and time.

In this particular house, I want to call attention to the two points just mentioned, namely composition and sense of proportion. I can hardly call to mind any modern example where the stylistic basis is the same, where so keen a feeling is shown for massing, for line composition, and for the proportioning of solids and voids. In considering later the dormitories for the University of Pennsylvania we shall see how grave an error it is to lose scale in window openings. This Locust Street house shows how absolutely imperative is exactness in this respect, where this particular style is involved.

Another point worth noting is the carved detail. Now only too often the ornament of Tudor, Elizabethan and Jacobean architecture is peculiarly ugly, tainted as it is by debased influences from Germany. As a general thing an architect working in one of these styles accepts the detail as inevitable, granted the primary assumption of the style itself. Not so Mr. Day. The historical detail was not beautiful; this was enough for him, and he promptly evolved something better which lacked historic precedent but had the greater merit of pure beauty. Action of this sort marks the architect of taste and conscientiousness and creative ability.

I can't quite feel that the great country house in Ambler, Pa. (Figs. 8 and 10) is as successful in its field as is the far more modest Locust Street house. The composition is crowded and casual, the parts are not co-ordinated, the windowing haphazard, the roofing tent-like and formidable. It has good points, many of them; for instance the strong base of stone terrace, the carriage porch and the gabled end adjacent, above all the magnificent stonework. On the



FIGS. 8-10.—RESIDENCE OF C. WILLIAMS BERGNER. Frank Miles Day & Bro., Architects.

Ambler, Pa.

whole, however, the house is disappointing. It lacks the grave calm, the "Vere de Vere" self-restraint, the poise and presence of its great prototypes, the XVth and XVIth century manor houses of England. In this regard it serves to show how rapidly Mr. Day came to grasp the essentials of a style used here, I assume, for the first time. A few years later the Locust Street house, and the gymnasium now under construction, manifest a penetrating grasp of the essentials of this most inspiring style; proportion, composition, self-restraint. It is an architecture for gentlemen, it breathes good



FIG. 9.—STABLE OF C. WILLIAMS BERGNER.

Ambler, Pa.

Frank Miles Day & Bro., Architects.

breeding and marks good blood. Without these qualities it becomes intolerable, as witness the rank and file of American imitations recently popular. Straight classic is a style where it is hard to go hopelessly wrong, though the late Mr. Mullet and the creator of the Philadelphia City Hall would seem to prove the contrary, but in this other style it is correspondingly hard to go right, for it pre-supposes a power of keen analysis and a faculty for grasping essentials on the part of the man who handles it. No one has reduced it to a tabular statement of mathematical formulae, therefore each must delve for himself. In nine cases out of ten the practi-

tioner is content with what he sees on the surface; contours of mouldings, buttresses, battlements and gables, and this way lies perdition. The mistakes in the Ambler house are fewer than usual, for refinement of feeling will mitigate much error, but it is not what the Days would make of it now as is proved by the gymnasium for the University of Pennsylvania. Before I speak of this, however, we must take up for a moment that amazing creation where four men of singular sympathy and unity of purpose came together to bring into existence one of the most original and important buildings in the United States.



FIG. 11.—CLINICAL AMPHITHEATRE OF THE MEDICO-CHIRURGICAL HOSPITAL.

17th and Cherry Streets, Philadelphia, Pa.

Frank Miles Day & Bro., Architects.

How shall we speak of the Archæological Museum (Figs. 13, 14, 15) the building which should be era-marking and which is the result of the fusion of the brains of Messrs. Eyre, Cope, Stewardson and Day? I have tried in vain to bring home to any one of them the credit for some single thing. Independent action, individuality of product is strenuously denied, therefore the building must stand as the precipitation of five sets of brains fused in the crucible of enthusiasm. In so far as the Days were a part of this startling amalgam a portion of the credit must go to them and be recorded here. I am a little afraid to speak of this structure at length for it makes



FIG. 12.-THE ARCHAEOLOGICAL MUSEUM.

University of Pennsylvania, Philadelphia, Pa.

(Frank Miles Day & Bro., Architects · Wilson Eyre, (Cope & Stewardson.



FIG. 13.—THE ARCHAEOLOGICAL MUSBUM.

Architects Wilson Eyre, Cope & Stewardson. University of Pennsylvania, Philadelphia, Pa.



FIG. 14.—THE ARCHAEOLOGICAL MUSEUM.

University of Pennsylvania, Philadelphia, Pa. Architects (Cope & Stewardson. Wilson Eyre,



FIG. 15.—THE ARCHAEOLOGICAL MUSEUM. University of Pennsylvania, Philadelphia, Pa. Architects $\begin{cases} \text{Frank Miles Day \& Bro.,} \\ \text{Wilson Eyre,} \\ \text{Cope \& Stewardson.} \end{cases}$

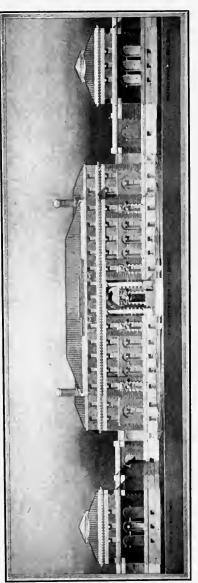


FIG. 16.—MUNICIPAL HOSPITAL.

Washington, D. C.

Frank Miles Day & Bro., Architects.

so instant and overwhelming an appeal to me that I doubt my judgment. Personally, I feel increasingly that it is at the very least one of the most significant works of art yet produced in America. What is its basis, Lombard, Tuscan? Or are the hints of these influenences accessories only, accidents? Is not the basis just keen, creative enthusiasm? The thing baffles and amazes. It is as spontaneous as the Ducal Palace in Venice, the Hotel de Ville d'Orleans or the Chapel of Henry VIIth. It grows from its plan inevitably, impeccably. It is as logical and crystalline as great music; as the Vorspiel of Parsifal, or the Third Symphony of Brahms. It has the unity of a great tree, the directness of nature itself.

One feels that American architecture should show at least its chain of ethnic continuity. Of this there is nothing in the Archeological Museum. Does this prove that the theory is wrong, or that the building is an episode only, a sport of genius? For one I admit my inability to answer the question, but whatever the final solution, there is a living lesson here of the value of simplicity, directness and independent thought. Is genius but the power of taking infinite pains? Then this is a work of genius, for every detail in this design is studied to the ultimate limit. The brickwork with its entirely new bond and its joints an inch and a half wide; the inlaid decoration, perfectly placed and Japanese in its "naiveté" and spontaneity, the color composition and "notan," the intimate use of water, grass and foliage-all these things and many others show what results are obtainable where every point is scrupulously considered, and all is rejected that has not been studied to the point of perfection.

Right or wrong in style, significant or the reverse in the history of American architectural development, this Archeological Museum stands as a great lesson in right methods at least and in this respect at all events it must have its effect.

Mr. Day and his brother are now engaged on two projects of great importance and each shows very clearly the sureness that comes with maturity. These are the group of buildings for the Municipal Hospital, Washington, D. C. (Fig. 16), and the gymnasium for the University of Pennsylvania. The first exists thus far only on paper, the second while under construction can be illustrated only by drawings, which is unfortunate since the work itself is immeasurably finer in every way. Both show to perfection one of the strongest marks of the firm's genius, power to plan logically, monumentally and practically, and to express this plan outwardly with force and precision. This is the fundamental quality of all good architecture, and unfortunately it is not noticeably common. All that the Days' design is organic; I have already called attention to its perfect taste. The combination is invincible and when the

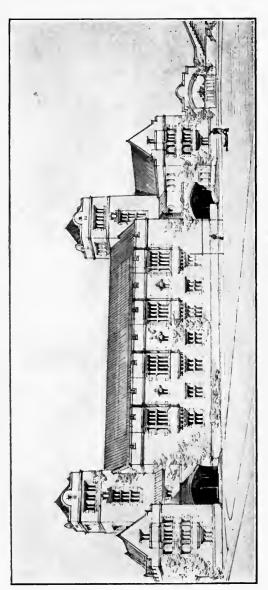


FIG. 17.—THE GYMNASIUM.

University of Pennsylvania, Philadelphia.

Frank Miles Day & Bro., Architects.

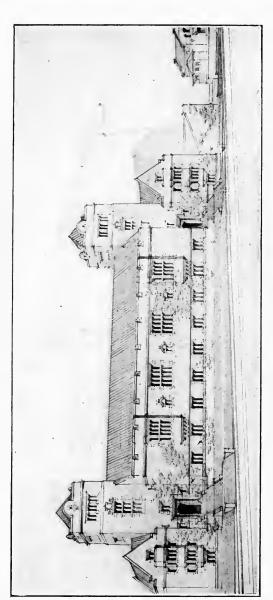


FIG. 18.—THE GYMNASIUM.

University of Pennsylvania, Philadelphia.

Frank Miles Day & Bro,, Architects.

great opportunity comes, as it surely will, the result will be notable. The Washington hospital scheme is as I have said a master-piece of practical and monumental planning. In style it is of a vital and noble colonial, dignified, competent, convincing; sufficiently

FIG. 10.—RESIDENCE IN PHILADELPHIA. Frank Miles Day & Bro., Architects.

historical, adequately modern, a strong essay in the development of ethnic style.

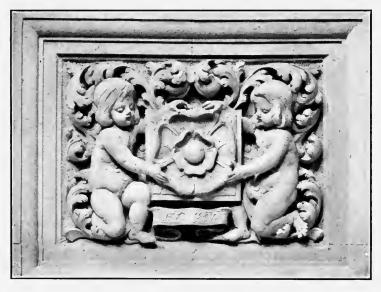
The gymnasium (Figs. 17 and 18) is even better as an example of organic planning and the outward expression thereof. It shows the most mature restraint. grasp of the components of architectural design and their relationships, certainty and confidence of touch. It is an essay in architectural logic. Outwardly it is based on the best type of English collegiate work, remotely suggestive of St. John's College, Oxford, one of the buildings that proves finally that composition is as important and as highly developed in Mediæval as in Classical design, Mass, outline, proportion, all are just and calm and sure. The surfaces are just broad enough, the structural lines just sufficiently emphasized, the oriels and

mullioned windows shaped with exactness, right in their openings, placed where composition demands them and where the plan requires them. There is no straining for effect at any point, no sketch-book detail, no affectation, no self-consciousness. The whole thing is grave, serious, solid and logical, sure in every touch, the work of men that have found themselves.

Measured by recent standards the Days have not done an excessive amount of work, but their influence has been profound and far-reaching. Why? Simply because they have stood unflinchingly for good taste and for intrinsic beauty, and because they have done nothing that was half studied or for revenue only. They treated

their art with respect, they never forgot that an architect must be first of all a gentleman, and they held faithfully to the gentleman's creed "Noblesse oblige." They, with Mr. Eyre and Messrs. Cope and Stewardson, turned back the tide of "Sans-culottism" that was overwhelming Philadelphia, and they set up their standard as a rallying point for all men loyal to good taste, to seriousness of purpose, to faithfulness in the small things of architecture as in the great.

Ralph Adams Cram.



CARVING OVER MAIN DOOR.

House on Locust Street, Philadelphia, Pa.

Frank Miles Day & Bro., Architects.



MURAL PAINTING AT THE SOUTH END OF SARGENT HALL.

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BOSTON PUBLIC LIBRARY.

The South End of Sargent Hall.

HERE is at last a mural painting in America worth a journey across the continent to see; and this forms part of a large scheme of wall decoration, promising much—claiming greatness—and not likely to be disputed in this claim by art lovers of whatever predilection. Those who are able to visit Boston for two days, or to "stop over" for the time between two trains, may add definitely to their happiness in life—such happiness as the great achievements of literature and art are capable of giving—by a visit to the Public Library.

Mr. Sargent is the most swift and dextrous of portrait painters. His readiness, his resource, his command of every device known to the modern painter in oils, all are recognized by the artists of his epoch: all are admitted or asserted ungrudgingly by painters who talk about one another's work. The peculiar swing and dash, and the graceful dexterity of this portrait painting of his have been especially notable in the recent exhibition of his portraits which was held in the Boston Museum of Fine Arts in September last. There were seen about twenty-five of his most recent works, life-size portraits all, some full length, as in the case of the astounding picture of Mr. Higginson painted for the Harvard Union, others of half length only, some of ladies, some of the ladies' husbands, all brilliant, all swift and slight in their manipulation, all suggesting the work of a mind and hand so trained in what might almost be called sketching in oil, that the temptation to make and develop a sketch and to try for nothing more might well be irresistible. And this is noticeable—that, in the mural paintings of eight years ago, at the north end of Sargent Hall, something of the same swift and clever manipulation was visible, and also much of the same realism of pose and gesture which the recent portraits show so strongly. The Frieze of the Prophets which comes below the lunette at the north end, is not a frieze of decorative quality, it is not an organized group or a series of groups, it is not architectonic nor subdued to the conditions of an architectural adjunct. It consists of seventeen standing figures and one crouching or seated figure, in addition to the centre piece in relief, in which a grandiose Moses surrounded by the spread wings and the serpents of Eastern mythology rests his hands upon idealized Tables of the Law and stands full front as the only architectural or elaborately composed figure of the whole series. All the rest are clothed in that abundant, that super-abundant, that incomprehensibly full and flowing drapery of which painters of the figure have the secret; and each of these figures is in action, as it were. There is gesticulation, there is beckoning, there is prayer and lamentation, there is drawing of swords and clenching of fists. The crouching figure is overwhelmed by his grief; the standing figure next him hides his head in a vast black cloak. Each one of the prophets is employed in some individual and active movement, or occupies some emphasized pose expressing personal feeling, rather than aiding in a united movement or emotion; and, from the painter's point of view, each is the study of a nobly conceived human figure rather than one part of a great decorative composition. On this account it has never been possible for the lover of mural painting, as such, to accept that frieze as entirely and in all respects the thing to be desired. But now the aspect of the great decorative scheme for Sargent Hall is changed. In the work done during the winter of 1902 and 1903, namely the putting into place of the pictures of the south extremity of the hall, a mural painting is given us which is to be described in very different terms from those used above and which is, until further notice, the best thing for its purpose which our public buildings contain.

Sargent Hall is the third landing place of the main stair. The great square staircase hall of the ground floor, with its memorial pedestals supporting marble lions, is only high enough to contain that single set of stairs which leads to the landing place where are the paintings of Puvis de Chavannes. From that landing place open two square lobbies through which you go northward to the children's room and southward to the "Issue" department. From one of those lobbies the stairs go upward, and reach Sargent Hall, which is figured on the plans in the guide book as 23 ft. wide and 85 ft. long. The staircase with its well-hole and high parapet occupies one-third or rather less of the floor space. The Hall is higher than it is wide, for the vertical height of the walls is about 14 ft. and above that the chord of radius of the vault is of 11 ft. 6 inches more. The room is all light gray, walls, floor and vault, either built of the pale limestone used generally for the interior of the library or plastered in close imitation of it so far as the color is concerned. The only exception to this uniform grayness is at the two ends. The north wall from the top of the dado to the crown of the vault is covered with the painting of eight years ago; and of the same date is an adjoining band painted upon the side walls and the vault above them; a band six feet wide measured horizontally. and seeming to frame the composition of the end wall. Now, too, the south end is painted, but the terminating wall only, without any setting or framing such as the band above described supplies to the north lunette and its frieze. If, now, these end paintings were conceived with a view to the painting of the whole gallery, as to which there is no doubt, then they are intended to look and they will look very differently, this painting once completed, than now, or so long as this pale gray tint embraces everything except their own surface.

Then, there is the lack of sufficient daylight. The side walls may perhaps find themselves enough in daylight for their pictures when put into place to be seen; but assuredly the paintings of the end walls are not seen aright, and certainly the light upon them will be still more dim when the side walls no longer reflect light as freely as they do now. It is one of the misfortunes of the hard-and-fast Neoclassic style design chosen for the interior of this building—a style contrasting so decidedly with the free Parisian work of 1840 which was imitated in the exterior, that no such thing as a proper skylight could be endured for a moment by the designer or his assistants. How can you make a skylight in a tunnel-vaulted gallery? Aparently in only one way—the mere cutting of a series of square holes, as if a carpenter had gone up there with a saw after the vault was complete. Nothing else is allowed to you as a faithful classicist; and yet nothing else that pretends to be a skylight could be quite as feeble in actual decorative effect or quite as unsatisfactory for the admission of light, as that row of rectangular holes. The result of this arrangement is that the light which impinges upon the upper part of one of these lunettes has been reflected upwards from the floor and diagonally sidewise from the long walls—that almost no light reaches these paintings direct from the sky, and that the light which does so reach them comes at a thousand different angles, much of it flashing back directly into the eyes of the speculator in a way that would be at once recognized and at once voted insufferable if the surfaces were more glossy, but which even as they are is injurious to their best effect.

Under all these conditions the painting of the south wall has been put into place, and it consists of a lunette decoration in which are represented the personages of the Trinity, with seven haloed doves which it is possible perhaps to explain as the seven gifts of the Holy Spirit; and a band below, corresponding in position and in size with the Frieze of the Prophets at the north end; and of a great sculpture in low relief representing Christ on the cross, which relief sculpture invades the crowning lunette and to a less degree the frieze below, crossing also the band of separation between them and forming the central figure of the composition. This central piece, then, presents first the body of the Saviour on the cross, and on either side of it our first parents who, by an unusual



FIGURES OF THE SAVIOUR AND OF ADAM AND EVE. (South end of Sargent Hall, Boston Public Library.)

John Sargent, Painter.

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piece of symbolism, are themselves collecting the blood which flows from the wounds in the hands. The feet of Christ bear upon the coiled and twisted serpent, of whose body, however, one fold passes around the feet of Adam. The red drapery which hangs from the shoulders of the Saviour passes also around the crouched figures on the right and the left. This drapery is dark red; the bodies themselves are colored in a rather cold gray which is perhaps to be considered an injury to the composition; at least, one who learns to love the color scheme may find himself troubled a little by the chill of those gray and shining, rounded limbs. The cross itself is framed, as it were, in strongly emphasized mouldings which, as they are solidly gilded, and are echoed by the gilded frame of the curious square in which Adam and Eve are placed and which serves as a background for the cross, makes the metallic glitter of this part of the picture very decided indeed. This golden gleam is repeated in the crowns of the Divine Persons of the lunette, in the angelic wings and weapons below, always placed upon details which are modelled in relief. Now the present writer can never join in thought with those to whom gold is a glaring or an aggressive thing in decoration. Gold is the greatest of all harmonizers, the most perfect of softeners and reconcilers. There is nothing like gold for the use of the man who does not quite know how to harmonize bright colors; nor is gold to be shunned by any artist of decorative purpose until his figures approach realism in their treatment, and the placing of his picture with regard to its lighting and the approach of the spectator to it have been perfectly calculated. In other words, Paul Veronese does not demand gold for any part of his Marriage of Cana, but the men of Florence, still greater as mural decorators than Veronese if much less powerful as painters, could hardly dispense with gold and were always ready to use it freely. The use of it in this instance in large masses is a part of that admitted and obvious return to the principles of an earlier school of decoration which is so welcome in the superb composition which we have now under consideration. A peculiar charm is found in this frank return to decorative principles, this frank adoption of a decorative purpose, on the part of a consummate modern painter.

The Frieze is made up of the Angels of the Passion, of whom two support, or seem to support, the cross. They hold the reed, the spear and the nails of the cross, the crown of thorns; while on the right hand side one supports the pillar of flagellation and the scourge. There is nothing individual about these figures. They are the Angels of Passion and are to be taken together; no one of them is a personality. It is to be noted that in like manner no effort has been made to distinguish by facial expression the person-



John Sargent, Painter.

FRIEZE OF THE ANGELS.

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John Sargent, Painter. Copyright by the Trustees of the Public Library of Boston, 1903. From a Copley print, copyrighted 1903 by Curtis and Cameron, Publishers, Boston. (South end of Sargent Hall, Boston Public Library.) FRIEZE OF THE ANGELS.

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ages of the Trinity, for, according to an account which has been published, the three being in low relief were cast in the same mould with the deliberate purpose of making them exactly alike in expression. They are crowned differently; the Papal crown on the central figure, the Imperial and the Royal crown on the side figures, in a way capable of being interpreted as sufficient distinction for the three Persons, but as to the exact signficance of such details difference of opinion may exist. It is of comparatively little consequence to the student of decorative art what school of theology has had the most weight in inspiring these symbolic representations. The thing for us all to consider is rather the magnificent glow of solemn color, the splendid treatment of the separate parts of this color scheme in the really stately draperies, the exquisite gradation of hue in the sombre red garments of the angels, the harmony of the whole thing when looked at from a sufficient distance to see it all as one composition, and the almost equally splendid quality of a single part which one may select and enjoy for the moment as a separate picture.

To accept this as a decorative painting of the highest possible quality is much. To study it farther is to find in it something still more remarkable as artistic achievement, in that a skilled and daring portrait painter should have bent his genius and his exceptional facility to so grave and so reserved a work. Perhaps even more important still is the triumphant solution of the difficulty which must have harassed every painter at different times during his career, and which is always present in the mind of the student of modern art—the difficulty of treating well drawn and well posed and anatomically correct human figures in a highly decorative spirit. In connection with this view of the case one might cross Copley Square to the front of the porch of Trinity Church, a porch erected only six years ago, and study there a similar effort in sculpture of life-size and smaller. There was a sincere and even a successful attempt at treating sculpture of Romanesque design with modern knowledge of the human body, and this was, as there has been occasion to say before, a partial success greatly encouraging to the makers of such designs for the future. In the Sargent composition, however, a further step is taken, and the highly trained technician has found in his spirit the thought, which as he has known how to embody it, will remain a permanent example of the way to treat the human figure in painted decoration.

Russell Sturgis.

A "MODERN CLASSIC."

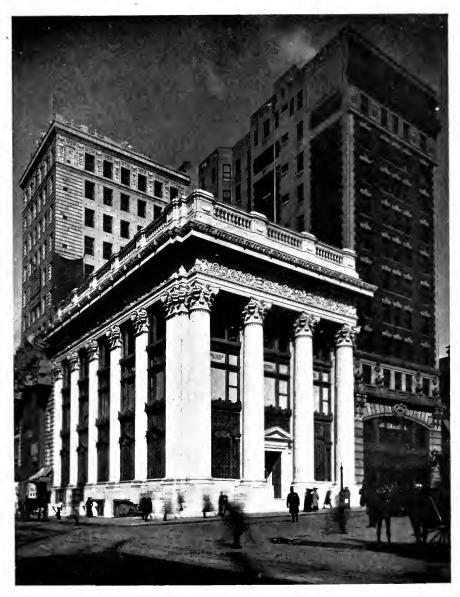
REAT have been the vicissitudes, within living memory, of the plot at the northwest corner of Fifth Avenue and Thirty-fourth Street. About a full generation ago, the late A. T. Stewart found it brownstone and left it marble. Before that was it not the "palatial residence" of one Townsend, patentee of a sarsaparilla, long forgotten, or remembered only by Artemas Ward's "quotation from old man Townsend's advertisement." At any rate it was, in the estimation of a man who could afford to take his choice, precisely the most eligible site for a residence in the City of New York, though only across the avenue from the residence, a conventional brownstone front, which the millionaire already occupied. residence itself which he "left marble" was and remained, so long as it remained at all, noteworthy for the extreme massiveness and solidity of its construction. A member of the club which occupied it after the millionaire vacated it by death, and who must have been of Irish extraction, complained of the expensiveness of the necessary alterations in it, entailed by the fact that "the wood work was all marble"—barring what was iron, he might have added. In design it was far more ambitious and far less successful than the conventional brownstone front which it supplanted, being the result of the millionaire's infatuation for an architect who was little better than an "artchitect," and whose works have mostly, to the relief of the judicious, followed him, the only conspicuous monuments of his art left being the "up-town store," at Broadway and Tenth Street, and the "new" court house in City Hall Park, the demolition of which the judicious await with some impatience. The club, in adapting the interior to its uses, "incredibili labore" as already set forth, refrained from tampering with the unsuccessfully pretentious exterior and it stood until it was pulled down, also "incredibili labore," as a monument of the architectural uncultivation of the most conspicuous New York millionaire of A. D. 1870, having in the meanwhile witnessed strange changes in its environment—having seen the fashionable centre for residence shift a couple of miles to the northward, and itself confronted across the way by the towering caravanserai of the Astoria. The millionaire's pecuniary instinct had served him well as to the "investment," for in the interval the ground had become too costly for any man or even club to keep house in, and been marked out by the progress of events, as the proper place for a "financial institution."

The financial institution is to be congratulated by all lovers of architecture upon refraining from turning its premises into a speculation in real estate by putting up a skyscraper on them, with



THE BUILDING OF THE KNICKBOCKER TRUST CO.—FIFTH AVENUE FAÇADE.

34th Street and Fifth Avenue, New York City. McKim, Mead & White, Architects.



BUILDING OF THE KNICKERBOCKER TRUST CO.

34th Street and Fifth Avenue, New York City. McKim, Mead & White, Architects.



THE BUILDING OF THE KNICKERBOCKER TRUST CO.—DETAIL OF THE EXTERIOR. 34th Street and Fifth Avenue, New York City. McKim, Mead & White, Architects.



THE BUILDING OF THE KNICKERBOCKER TRUST CO.—THE CANOPY OF THE ENTRANCE.

34th Street and Fifth Avenue, New York City. McKim, Mead & White, Architects.

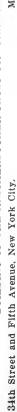
only one floor reserved for its own use. That would have given us another of the sort of buildings of which we have already, for architectural purposes, several hundred times too many. The attractiveness of the actual result proceeds primarily from the dignified determination of the owner, the Knickerbocker Trust Company, to erect a building chiefly for its own use, a modest three stories with a partly visible and partly inferable attic which may serve for janitor's quarters. And, secondarily, it proceeds from the perception of the architect that this building project gave scope for a really classic building, as very few building projects do which are fitted in a Procrustean manner to what it pleases their architects to regard as a classic scheme, or oftener are decorated with classic members divorced from their natural and appropriate belongings and surroundings. This latter process is very ancient as well as very common, but it does not on that account become venerable. It dates back to the architecturally bad old times of the Roman Empire, when the inartistic Roman engineers, for all the world like inartistic modern architects, built their buildings as they practically had to, in such forms as the construction naturally took, and then, instead of expounding and decorating this construction into architecture, which they had neither skill enough to do nor perception enough to attempt, plastered upon their fronts the "orders" of another construction, which had been developed to an architectural result, but which were entirely irrelevant to what they were doing. Of the two classes of architects, the class which took part in the Greek revival of the early nineteenth century, and frankly sacrificed their buildings to their architecture, as, for example, by designing windowless Parthenons for the uses of modern custom houses, seems more respectable than the compilers of the things of shreds and patches.

It is by no means often that a modern architect has a project which will allow itself to be simplified to the Greek construction. and in which a single system of uprights and cross pieces can be made the whole visible structure of the modern building. When that exceptionally happens, the most convinced mediaevalist or modernist can hardly cavil at the adoption of the "order," in which that construction was once and for all so beautifully developed and expressed that no construction more complicated has attained an equal perfection. A case is clearly made out for classic when the architect can employ the order as the structure, instead of reducing it to the place of a superficial decoration, or of taking it apart and undertaking to reassemble its elements in other connections than that for which they were devised. There are few recent works, and not many modern works, in which that opportunity is legitimately offered. When it is offered it is a pleasure to see it embraced and made the most of, and to see how immensely the order gains in



THE BUILDING OF THE KNICKERBOCKER TRUST CO.—DETAIL OF THE INTERIOR.

34th Street and Fifth Avenue, New York City. McKim, Mead & White, Architects.







BUILDING OF THE KNICKERBOCKER TRUST CO.—BANKING OFFICE. venue, New York City. 34th Street and Fifth Avenue, New York City.

effect by being restored to its structural significance. The typical example of this true and appropriate use of the classical construction is that truly "neo-Gree" edifice, the Faculty of Medicine in Paris. Here, above a basement of one moderate story, and between wings of two moderate stories, is enclosed the main motive of the building, the Ionic colonnade which is the actual framework, and which is so much more impressive, because so much more expressive, than any superposition of orders, each with its own entablature, or than any hybrid of the Grecian colonnade with the Roman arcade. The wall here becomes the mere screen that it must be in a truly "classical" construction. Speaking of the great Basilica of the Giants of Agrigentum, Viollet-le-Duc says, very pertinently: "To use columns as points of resistance, piers, or buttresses, and then to shut up the intercolumniation with a light construction was to reason very wisely; but to treat the voids as if they were the solids, the screen walls as if they were the necessary construction, and the buttresses as mere decorative features, as was done habitually by the Romans at a later day, was, with all due respect to the Romans and their infatuated imitators, very barbarous reasoning."

In this country, there are recent examples of this true method of employing the classic construction, which commend themselves alike to those who are in the habit of analyzing architectural arrangements, and to those who are not, but who feel the truth of a just arrangement without reasoning upon it. One is the Memorial Hall at West Point, which may or may not have been inspired by the Faculty of Medicine or by the Basilica of the Giants which was the prototype of both. It now (by the addition of the wings) resembles the Parisian building more nearly than when it stood detached. But it differs from the Parisian building, in that it has no supporting pasement, but that the order is not only the structure but the whole structure, and that besides the essential structure there is only the "screen wall" of Agrigentum. All this is beautifully and classically carried out, and is calculated to meet the views of Gibbon's celebrated friend, "the rational voluptuary," Another success in the same kind is that of the New York Stock Exchange, where the order is equally the structure, but where the "sweet reasonableness" of the arrangement is perhaps a little obscured by the fact that, in order to reduce his order to classical proportions, the architect has found it necessary to introduce, under the order and above the basement, a low arcaded story which is sufficiently accounted for on the interior by a gallery, but is scarcely satisfactorily explained on the outside. All the same the Stock Exchange, like Cullum Hall, is a very distinct success and equally a success upon rational lines.



BUILDING OF THE KNICKERBOCKER TRUST CO.—THE WAITING-ROOM.

34th Street and Fifth Avenue, New York City. McKim, Mead & White, Architects.

And now we have to add a third success in the building of the Knickerbocker Trust Company which is the subject of these remarks. The site is something like 75 feet on the avenue, by 125 on the street, and the primary merit of the architect lay in perceiving that upon the narrower front he could erect an order which would be ample in scale for effect, and which would accommodate and embrace all the requirements of a three-story building (unless part of his merit was to persude his clients that a three-story building for their own use was the dignified minimum to which to limit themselves). Such at any rate is the fact. The order is ample in scale for purposes of impressiveness. Since it holds its own against the huge mass of the many storied Astoria, it is not likely to be put out of



VAULTS OF THE KNICKERBOCKER TRUST CO. 34th Street and Fifth Ave., New York City. McKim, Mead & White, Architects.

countenance by any succeeding erection. And it is well spaced, with ample but not excessive intercolumniation, columns neither huddled nor scattered but effectively detached—in the Vitruvian terminology neither "araeostyle" nor yet "pycnostyle," but simply "eustyle." This "tetrastyle" front is one of the most impressive visual objects in Fifth Avenue, or indeed in the street architecture of New York, and we ought to feel very much obliged to the architect for giving us something so good to look at. It is perhaps a pity that he could not have continued his colonnade along the longer front, without being obliged to subdue the order into a series



BRONZE DOORS OF KNICKERBOCKER TRUST CO.'S BUILDING.

Photo by courtesy of John Williams. McKim, Mead & White, Architects.

of pilasters, necessarily less effective than the great fluted columns, but we owe the owners so much for what they have allowed him to do that it would be ungrateful to labor this point.

The accessories and the details are all elaborately and artistically carried out "in the high Roman fashion." For though the scheme of the building is unquestionably Hellenic, the detail is as unquestionably Romanized. And rightly so-rightly at least, when one concedes the Corinthianism of the order. For it is pretty clear that while the Romans undoubtedly degraded the other two orders which they imported, they improved the third by heightening its inherent expression of elaboration and sumptuosity. The "light construction" framed by the order is not here as in Cullum Hall, a "screen wall" in masonry but a mere trellis in glass and metal, a close grillage in the lower or banking floor, an expanse above of plate glass with just enough frame to hold it. The exception brings up the one unfavorable criticism one is moved to make, the one apparent solecism in the treatment. For the pedimented doorway in masonry pretty plainly does not "belong." It is not and could not be really allied to the main construction, the great framework of the order. Why, then, should it not be frankly treated as part of the filling, with some elaboration and emphasis, if you please, of the treatment of the very successful projecting openings that flank it. There seems to be a failure here of the rigid logic that prevails elsewhere, and in the diminution of rationality a diminution of the pleasure of "the rational voluptuary." One would like to see this central interstice filled, like those that flank it, with a frank filling which shall disavow connection with the main structure.

The interior is for the most part as classic, as Hellenic, in effect as the exterior, and the columns which are to make their effect by sumptuosity of material are very properly reduced to the simplest possible expression in design. The canopy of the doorway on the inside it is true, partakes much more of the fantasy of the Italian Renaissance than of Attic simplicity, but that is comparatively a trifle. One has to congratulate the architect upon attaining the rare success of a "modern classic."

Montgomery Schuyler.

THE ART OF THE HIGH BUILDING.

EW phrases have included such a miscellaneous collection of facts and statements as this—the art of the high building. For much of the phenomena to be classed and discussed under this head has no artistic quality or value whatever. It is sheer ugliness, uncouthness, misunderstanding and absurdity, if judged by artistic standards; and the true artistic elements—so far as they exist—are often of a singularly undeveloped nature. One has but to mentally compare the great high building of to-day—the typical and most noteworthy architectural creation of our time—with the great typical building of the Italian Renaissance or of the French mediaeval period to realize how very different modern standards of art in things architectural are compared with those of more genuinely artistic epochs.

The erection of the high building has been a recognized branch of our architectural industry for some time. For nearly a quarter of a century it has occupied the minds of our architects, given them their most important monuments, on the whole, and lined their pockets with the largest fees ever obtained in general practice. The participants and contemporaries in a movement are not apt to be competent judges of its tendencies and results, and yet so much thought and treasure have been poured out on the high building, it has become such an intimate part of the commercial life of our time, that it is by no means impertinent to ask, even at this early day, if some definite steps have been reached in the solution of the artistic problems involved in its construction, or if—and perhaps this is the more rational question—if tendencies have been shown which look anywhere, and whither is the direction towards which they tend.

It is more than right to insist on the artistic conception of the high building. Engineers will doubtless maintain that the chief problem is that of engineering. I am not in the least disposed to discount the importance of the engineering problems in buildings of this description; but I respectfully submit that in a building that covers a considerable area, that raises its head as high into the upper strata of the air as the engineers will carry it, which cries aloud for attention and consideration, which invites criticism because of its vast cost, and in which, moreover, the engineering part is carefully hidden and covered up from view—in such a building, surely, the artistic expression, the form, the covering, the outer aspects, are of supreme public importance.

One of the most interesting views in New York may be had from the junction of Liberty street and Maiden lane. Standing there



THE JUNCTION OF LIBERTY STREET AND MAIDEN LANE.



LOOKING UP BROADWAY FROM BOWLING GREEN.



N. Le Brun & Son, Architects. This building will eventually occupy the whole block and will contain more floor space than any office building in the United States. THE BUILDING OF THE METROPOLITAN LIFE INSURANCE CO. Madison Square, New York City.

the spectator sees before him a little old brick building, five stories in height, placed at the intersection of Maiden lane and Liberty street. It is a simple little structure, absolutely devoid of ornament and detail, but with a flat, rounded end, a recognition of the site that was as much as its builder cared to consider. The windows are plain, flat-topped openings of the old style; the fifth floor is manifestly an attic floor since it contains fewer windows than the lower stories, and the roof is slightly pointed. How much of this structure may be modern or restored I do not know; but it is distinctly of the old type, and it bears the date "1823."

Here, then, is a fair starting point, a building eighty years old, standing in a district long since given up to commercial purposes, and itself used in the same way. And what strange things this little old house has seen grow up around and behind it! The buildings in the foreground are of a later date, but still entirely antiquated as commercial buildings go to-day. But behind it, what marvels and miracles of contrast! Directly at the back is the sheer solid brick wall of the John Wolfe Building, a structure moderate enough in height, as high buildings are built to-day, but colossal compared with the little old house of 1823. To the left, on Liberty street, is the generous facade of the Bishop Building-twelve stories, tier upon tier of windows-a building wholly different in material, in design, in expression, in use, from the old structure with which the neighborhood, as we now know it, started. Here is effort at architectural treatment, a great building, with a basement in design, a superstructure and a narrow attic, a building so different that the barest analysis of its parts shows how tremendously we have moved in eighty years.

But there is more than this; for still further off, and so huge as to almost overwhelm our little brick building, is the mighty tower of the new part of the Mutual Life Building, a building with piers and columns and cornices lifted so high in the air that, we may be very sure, the builders of 1823 could never have conceived of such things or of such possibilities. The entire progress of commercial architecture in seventy-five years is here brought into one view, and one may note the change and advance without moving a step from one's original standpoint.

There is another panorama in New York which is almost as instructive in illustrating progress—not perhaps so picturesque, yet better known—and that is the spectacle that may be viewed from the lower end of Broadway, looking up from Bowling Green. It is a wonderful sight, one of the most astonishing views in the metropolis. Starting with the vast facade of the Produce Exchange, the eye meets just beyond it, looking up the street, with an old brick building, five stories in height—the single antiquated note

in this array of splendor as it is understood in commercial New York—then the Wells Building, the Standard Oil Building, with the later addition Mr. Kimball has so cleverly added to it, the Hudson Building, No. 42 Broadway—the newest of the series— No. 46 Broadway, a brick building of later type than the one at Beaver street, but already so out of date as to be quite comparable to a wedding guest without the wedding clothes in the sumptuous company in which it now finds itself; then an old type four-story building, brick-a veritable derelict-then the Tower Buildingthe first structure in this country, so an inscription tells us, in which the steel cage construction was used-Exchange Court; the Consolidated Exchange, and the vast bulk and height of the Manhattan Life Insurance Company's Building. There is more beyond, but surely there is more than enough here for the philosophic observer, more than even the casual critic can well digest and ponder over on a winter's day.

Surely, then, with these contrasts and this great activity in building, it is time to ask if anything has been accomplished towards the solution of the artistic expression of the high building, or if tendencies have been started which would seem to indicate definite results. Let me frankly admit that I am entirely skeptical on both these points. Progress in architecture does not consist in the multiplication of buildings, but in real artistic achievement; and progress is not obtained by a hundred individual efforts, each originating separately, each overlooking what has been done by others, each failing to note where others have failed, each ignoring where others have succeeded. Yet a survey of the modern commercial buildings bring out no clearer fact than that this is just what has been done, and, more's the pity, it is just what is being done, and what would seem likely to be done for some time to come.

I am speaking generally, of course, and of high buildings as a whole; for in the case of individual architects very genuine steps of progress may be noted. The Blair Building, in Broad street, is a much franker and truer expression of the high building than the Mail and Express Building in Fulton street, both by Carrère & Hastings; the Empire Building, overlooking Trinity churchyard is a much more interesting building than the Manhattan Life across the street, on Broadway, both by Francis H. Kimball. But does the Park Row Building proclaim any note of progress over the building of the American Tract Society? Or do any of a score of buildings erected in the last two years indicate that their designers have profited by the experiments of other architects or taken the lessons of other buildings to heart? Is the Atlantic Building any more notable contribution to art than the building of the National Bank of Commerce? Does the Broad Street Exchange



BUILDING OF THE LAND TITLE AND TRUST CO.

Broad Street, Philadelphia, Pa. D. H. Burnham & Co., Architects.



THE NORTH AMERICAN BUILDING.

Broad Street, Philadelphia, Pa.

James H. Windrim, Architect.

sum up any nobler thoughts in architecture than the St. Paul Building?

These are pertinent questions, for the gentlemen who have built these structures have thrust them upon us for all time, so far as living man can see; they have spent huge sums in their architectural doings, and they have given our city—for limits of space in this discussion restrain me to New York—a new and characteristic aspect. It is quite beyond the question to point out the beauty of Manhattan's skyline—that has nothing to do with the case—and a building whose chief merit is that it out-tops its neighbors is necessarily wanting in most of the characteristics we are accustomed to associate with good architecture.

That the commercial building is a commercial enterprise is well known; that it is an architectural enterprise is a circumstance all architects would have us believe. Architectural it is, of course, being concerned with iron and stone, brick and glass; but is it architectural in any other way? Even in its short life of twenty-five years several steps or periods may be noted.

First, the introductory period; the first steps, in which such buildings as the Tribune Building and the Western Union Building were erected. The possibilities of high building design as they were afterwards made known were not at all understood in this remote epoch; but these first efforts were manly and straightforward, and still command respect.

Second, the advertising period. It was suddenly realized that a showy building was a good advertisement for its chief occupant. It attracted attention, it drew tenants, it became a profitable venture. The Pulitzer Building is a fair type, the Broadway front of the Mail and Express an extreme instance; the Manhattan Building a third example. The chief aim of the buildings which may be classed under this head was to be impressive by sumptousness of parts, by splendor of appointments, by richness of effect. A great financial corporation felt that it might stand better in the community if it had a fine house, and the greater the wealth the more splendid its abiding place—a natural proposition to which no dissent can be taken.

It was a type of building that gave architects their greatest opportunities, for they were not merely required to build, but they were commanded to build well and sumptuously, a certain artistic character was required of them; and if the architects failed to rise to their opportunities it was simply and solely because they failed to comprehend the problem presented to them. It is true they have endeavored to proclaim that the fault was not in them, but in the problem; but the bitter fact remains that they gladly accepted



THE FARMERS' DEPOSIT BANK BUILDING.
Pittsburgh, Pa. Alden & Harlow, Architects.

these impossible problems, and gleefully signed their names to designs that proclaimed their own incompetency.

Third. Then came the third period, which I take to be the present. A change has certainly come over the designing methods of high buildings within a very few years. The buildings are bigger, higher, broader, more costly; but there is less external art, less visible splendor, less effort to create interesting structures; on the contrary, the high building as illustrated in many of its most recent examples in New York, is a frigidly severe edifice, a sheer brick wall, lit with numberless windows, and with the smallest possible efforts to give it architectural form or rhythm.

As an illustration, let me take a group of buildings in lower William street. The Woodbridge Building has a front filling an entire block. Its facade contains no ornamental detail, and yet it is a very excellent effort to treat a commercial front in a dignified and architectural manner. It starts out with a basement of two stories in stone; then an intermediate story, in which the windows are in pairs and round arched; then a superstructure of eight stories, in which the walls are treated as piers carrying round arches; finally an attic story; all above the basement is in warm, yellow brick. The structure, as will now be perceived, is not a "high" building, as such structures are understood; but it is notable for the fact that its architect undertook to treat his front in an architectural way; he discarded ornament, but retained form; and he produced a design of considerable interest and of much architectural merit.

Pass down the street and compare it with the Wyllis Building, the Bishop Building, and No. 68 William street; compare it again with the Kuhn, Loeb & Co. Building, with the Wall Street Exchange, with the new structures in the lower part of Wall street. A basement of one or two stories is still retained; but above there is nothing but wall and windows, windows and wall. There is no effort to group the openings, no wall treatment, no piers; even the attic story fails to emphasize itself, or is so far removed from the street as to be actually out of the design. If these latest buildings are the last word in high design, as it is understood in New York, it is obvious that the artistic architect is out of the effort altogether, and the high building has become a simple box, with openings in it to admit the light.

An economic restraint has, apparently, come over our high buildings which is most detrimental to them in an artistic manner. Whether the architects have given up the problem in despair, whether clients have despaired of the architects, whether there has come a realizing sense on all sides of the utter commercial character of these structures and therefore, of the apparent folly of



"THE WHITEHALL."

Battery Place, New York City.

H. J. Hardenbergh, Architect.



THE RAILWAY EXCHANGE BUILDING. D. H. Burnham & Co., Architects.

Chicago, Ill.



THE FIRST NATIONAL BANK BUILDING.

Chicago, Ill.

D. H. Burnham & Co., Architects.



STORE AND OFFICE BUILDING.

Minneapolis, Minn.

F. B. & L. L. Long, Architects.

making them artistic, I do not know; but here are the results, and

very unpleasant most of them are.

Yet rigidity of treatment is not incompatible with successful and interesting results; huge height is not inconsistent with interesting efforts; a barren wall, the piling of windows one on top of another is not necessarily devoid of merit; all of which is most pleasingly and successfully illustrated in the Whitehall Building. Simplicity of parts could hardly go further than here. The stone basement is as devoid of unconstructional parts as the plainest building in New York: the tremendous superstructure has not a single note of ornament, and the walls are sheer brick fronts. But success here has been obtained by a clever use of color; the central walls are red brick; the end pavilions of light colored brick, with thin lines of red; the stone of the base is gray; the attic is simple and restrained. In plain words, this elevation was studied, and studied intelligently and well; no one would think, for a moment, that its parts were thrown hastily together and the topmost course of brick laid with the utmost haste, that an unpleasant task could be completed as speedily as possible, and with the smallest effort. Yet New York has not a few such buildings, and some of the latest and biggest are distressful examples of such unarchitectural proceedings.

Are we getting anywhere? Apparently we have run the gamut of ornamental structures and settled down-or is it up?-to useful ones, in which there shall be plenty of utility and the smallest possible amount of art. The basic type of design is still adhered to-basement, superstructure and attic-but the basement is hardly more than the protrusion of the foundation above the soil; the superstructure is a shapeless tier of windows; the attic a mere finish. The latter has long been a favorite feature with New York The logic of their proceedings is quite irresistible; the lightest parts cannot be below, and a building must come to an end; let us, they have cried with one voice, adorn our buildings at the top. By this time, apparently, they have awakened to the fact that the tops of their structures are so remote from the ground that no one can see them, and it has become absolutely true that the enriched attic story is becoming a feature of the past. But they still remain with us, and as one travels down Wall street quite a series presents itself; the Atlantic Building, the Sampson Building, and the structures below Pearl street, all characterized by a lower severity and enriched crowning, much of which, owing to the low altitude of the adjoining structures, is still visible, but seemingly destined, in the near future, to be well hidden from the view of posterity.

The ornamental entrance story has disappeared even more quick-



THE CORN EXCHANGE BANK BUILDING.
William Street, New York City.

R. H. Robertson, Architect.

ly than the decorated attic. The Atlantic Building boasts a crowning member of considerable richness, but the basement story is quite bare in its simplicity. The single feature is a heavy entrance portico, which is in striking contrast with the delicate carving of the United States Trust Company Building, immediately adjoining it. The latter is not a high building, although the time is not far past when it was proudly labelled a "modern office building." The contrast is most impressive. The United States Trust is a building of moderate height, treated in an architectural manner, and decorated with finely carved capitals and bands. The Atlantic Building is several times its height; has the barest of porticos as its chief lower ornament; has a featureless superstructure, and flares out above with a crowning member of several stories quite elaborately treated, a system of design that has become almost typical in New York.

The change towards simplicity in design, it should be thoroughly understood, is quite for the worst. Mr. Hardenbergh has shown, in his Whitehall Building, that simplicity is not incompatible with dignity, and that this dignity may have a decided quality of beauty; but the lesson has not been generally learned, nor its possibility appreciated. The featureless high building—the front that is merely, built up, story on story, tier upon tier—until the appropriation gives out—is no embellishment to our thoroughfares. Wealth of ornamentation is not embellishment; the prefixing of unnecessary parts is perhaps needless; but lack of interest is altogether inexcusable, and of this there is still a plenty and to spare.

A plain wall, however, has merits which the variegated treatment entirely fails in. Our architects are apparently moving away from the repetition of motif illustrated in the American Tract Society Building, the Park Row Building, the St. Paul Building, in each of which a large feature of several stories is repeated several times. It was an unfortunate system that should never have been tried more than once, for it quite ignored the idea that the high building was a unity, requiring to be designed as a whole, and not treated as a series of buildings piled one on top of the other. Yet the horizontal line remains in high favor, buildings which are without any other effort at architectural treatment, being erected with each story carefully indicated by bands and string courses repeated "ad infinitum."

It is strange, this cutting up of buildings into layers. There is a new building going up at Pearl and Beaver streets, unfinished when these words are written; but a building with a sharply rounded end, as befits the site. Each floor of the otherwise unmarked superstructure is indicated by bands of darker brick, as though the breadth was the element to be insisted on in a building

whose greatest distinction is its height. The attic member of this structure promises to be a brilliant piece of polychromatic work, one of the most striking novelties in high building design.

The most impressive element in the high building is its height; that is the single feature that distinguishes it from all other structures. Of all the architects who have essayed to solve the problem of high design, Mr. Louis H. Sullivan, of Chicago, has alone frankly expressed the vertical element and given the high building logical, as well as genuinely artistic expression. New York is fortunate in possessing in a building in Bleecker street, a fine example of Mr. Sullivan's work. It would be interesting to transplant it to Broad street, set it up before Carrère & Hastings's Blair Building, and ask them to exchange views on each other's aspect.

The architects of both structures studied at the Ecole des Beaux Arts in Paris; the Western architect has long been our most conspicuously individual practitioner; the New York firm is easily one of the most distinguished practitioners in the academic style. Their buildings are as far apart as the poles; both are fine examples of their kind; both well illustrate the characteristics of their designers. And both are vertical buildings. It is a triumph of principles over art; for Mr. Hastings has not previously given us a vertical high building, having contented himself with the repetitive method. Mr. Sullivan can not count Mr. Hastings as a disciple—they are much too far apart artistically for that—but at least he has pointed the way which Mr. Hastings has gladly taken in this most distinguished design. One has but to compare it with the immediately adjoining Cable Building, to become aware of how much better things can be done to-day than were done a few vears since.

The Kean, Van Cortlandt & Co. Building in Cedar street is another structure whose chief interest is the frank way in which it displays its Beaux Artism. Here again a vertical design, in so far that the chief part, the superstructure, is treated in great bays of seven stories, that emerge from a base and intermediate story of three floors; the attic is a single story. It is an honest effort to apply Beaux Arts ideas to the high building, although lacking in interest. Like many other new high buildings the ornamental enrichment of the lower stories is heavy and large; more vigorous by far than that which any French architect would produce, and heavier than seems called for in a building of such moderate dimensions.

It is a difficult problem, this of the scale of ornament. The buildings are so huge, the basements necessarily so heavy to seem to carry the weight above them, that the architect who would seek



BUILDING OF KEAN, VAN CORTLANDT & CO.
Pine Street, New York City. Warren & Wetmore, Architects.

to treat the question logically from the standpoint of the whole, has a sorry task. And his difficulties are not lessened when classic detail is employed, for his capitals and ornaments increase with diameters, and the laws of Vignola were not drawn to solve such problems as the modern Beaux Arts architects set out to illustrate them with.

The sightseer very soon learns to realize that there is little within the high building to see—the more reason, therefore, it would appear—to make the outside beautiful and impressive. The problem of the interior is chiefly one of plan and of construction. Yet our great commercial buildings are not entirely without interior interest. The entrance and lobby, the elevator hall and vestibule, are legitimate spaces for the display of the architect's personal taste. Make them as splendid as possible, was once the universal rule; I doubt if this is quite so general now.

Take the Mutual Life Building as an example. The entrance hall on Nassau street—the oldest part of the building—is quite splendid with its columns and arches, its walls and ceiling, all of polished and carved marble. The entrance is up a flight of steps within an outer porch, and one enters a rectangular vestibule, large enough to give a decided sense of space. The Metropolitan Life has a larger and more sumptuous vestibule than this, but that of the Mutual Life is comparatively large and is by no means recent. It is in striking contrast to the entrance of the National Bank of Commerce—a later building—just across the street. One stumbles there almost into the elevators, so narrow is the space; but even this shallow entrance is sumptuous with polished marble, as are most of the hallways and corridors of the large buildings.

But the Mutual Life Building has received several successive additions, and it would seem entirely proper to utilize them as types of progress. Around in Liberty street, the first entrance is No. 32. One goes in almost directly from the street level. There is nothing of the splendor of the entrance on Nassau street; only a small, compact corridor; marble walls, it is true, but the slightest decoration. Further down, No. 26, is another type. The elevators are in a branch corridor to the right; directly in face is a partly hidden stairway; rich marble again; but restrained. This, then, would seem to be the type of the high building entrance way: rich materials. These materials in older buildings were richly treated; in the newer they are still rich in surface treatment, but the architectural parts have almost completely disappeared. Apparently, no more money is being lavished on these great buildings than can be absolutely avoided.

The outlook is not cheering. There is no standard of artistic excellence. There is no indication of general appreciation of the

real problem involved. There is plenty of haphazard effort, a good deal of well meant effort, an occasional success. We had as much ten years ago; and we have to-day a vast quantity of uninteresting building which harms through its very negativeness. Surely every possible expedient and experiment has been tried. The time for such ventures has passed. The high building problem is not one that will solve itself, but it can only be solved by the most painstaking care, by the most thorough study of past efforts and failures, and by a thoroughly artistic meeting of the conditions involved. There never was a type of building evolved yet of which it can be better said "the more haste the less speed."

Barr Ferree.



THE MAJESTIC BUILDING.

Detroit, Michigan.

D. H. Burnham & Co., Architects.

THE ART OF WHISTLER.

HE Whistler Memorial Exhibition, which is open in Boston while I am writing, is what will likely prove a unique occasion for the study of Whistler's art. It is not at all probable that so many of his works will ever again be got together in one place, or that so ample an opportunity will be offered for seeing him in almost every phase of his career and in almost every branch of his practise. The exhibition is, indeed, incomplete in one important particular, for it could not contain three or four pictures which are his most uncontested successes. The portrait of his mother is in the Luxembourg Gallery, that of Carlyle, belonging to the Corporation of Glasgow, has been lent to the exhibition of the Royal Scottish Academy now open in Edinburgh. The former is generally admitted to show a more perfect balance of the qualities personal to Whistler with the qualities common to good painters of all times than anything else he has produced, and is therefore rightly, in a sense, considered his masterpiece. The "Carlyle" is of nearly the same time and of much the same character. Another picture which is thought by those who care especially for the Whistlerianism of Whistler to be finer than either of these, the "Miss Alexander," is also in the exhibition at Edinburgh. These omissions, serious to be sure, are almost the only ones of importance. Of Whistler's beginnings and tentative efforts in this or that direction before he made sure of that which was to be his own: of his early and charming successes in the first works that defined clearly his artistic personality; of the later work, entirely personal, in which his peculiar qualities become more defined and all other qualities gradually cease to occupy him; there are abundant examples. There are works in oil, water-color, pastel; there are drawings, lithographs, etchings, dry-points; works in every medium which he used, and subjects of every kind which he attempted; portraits, figure-subjects, marines, "nocturnes"; and works of every date from his schoolboy sketches to canvases left unfinished at his death. Even for the absent portraits there is the best substitute attainable in the "Rosa Corder," which is of about their date and nearly of their quality, ranking only just below the portrait of the artist's mother in the opinion of some connoisseurs, while "The Fur Jacket" marks the beginning of the transition to the later manner.

Such an exhibition naturally incites one to attempt some sort of estimate of Whistler's artistic production. It is too early for any definite decision as to its ultimate value or as to this artist's relative rank in the hierarchy of artists, ancient and modern; but one may

at least try to define the nature of his art-to show what it was and what it was not, wherein it failed or succeeded, what are the qualities which it did or did not possess. I the less regret my inability to speak with any authority as to Whistler's etchings, because in this field his superiority seems to be less contested. The variation of judgment seems to be between the opinion that he was the greatest etcher since Rembrandt and the opinion that he was the greatest etcher that ever lived. Mr. Pennell, who has strongly stated the latter view, begins by ruling all Rembrandt's more important plates out of the count as "pot-boilers," a term which he makes synonymous with compositions, and having thus eliminated, almost entirely, the intellectual and imaginative content of Rembrandt's work, bases his judgment, as far as one can gather, on technical considerations alone. One may accept expert testimony as to the great technical excellence of Whistler's practice as an etcher without feeling that this alone is sufficient to secure for him, permanently, the supreme position assigned him. The inexpert may feel that his art is, after all, of the same kind and quality in his etchings as in his paintings, and that his limitations are not, in themselves, reasons for praise, until it is proved that the world would be gainer by the absence from all art of the qualities he had not. With the general statement that Whistler's etchings are to-day considered by the best qualified judges as among the finest ever produced, I am willing to leave them, and to give my attention to his work in color as represented in this collection and in such examples as I have been able to see elsewhere.

One of the feelings most commonly expressed by visitors to Copley Hall is that of surprise at the variety of the work shown; and the pictures certainly do cover a considerable range of subject-matter. Yet the limitation of this range in certain directions seems to me quite as remarkable as its extent. I do not remember a single figure-picture by Whistler in which anybody is doing anything in particular. His figures stand or sit or recline, but they never act. And I do not remember a landscape with a tree in it, or a hill, or, except in one or two early works, so much as a rock. From the beginning he shows a tendency toward that elimination of definite subject and of definite representation which he justified theoretically in his "Ten O'Clock," and elsewhere—a tendency to extract from nature a few notes of color, a few lines and shapes, and to give these with as little else as possible. tendency affirms itself more and more until it assumes its extreme form in some of the later "nocturnes," where mist and darkness so disguise all forms that definite drawing becomes not only unnecessary but impossible, or in some of those pastels in which there is but a hint of anything actual, a line or two and a touch or two

of color, suggested by and suggesting something in nature, but imitating nothing. The nineteenth century has been an epoch of shifting and uncertain standards, of confused efforts, in which each of the arts has been reaching out for the effects proper to the others. Music has become more and more pictorial, and has attempted to convey definite ideas and even to represent external facts. For more than forty years Whistler was engaged in the effort to make painting resemble pure music as nearly as possible to make it a matter of tones and harmonies and intervals of intrinsic beauty, acting directly upon the senses and the nerves independently of the intellect. His titles, which seem affected and are certainly inconvenient, being hard to remember and helping little in the identification of particular pictures, are yet perfectly logical. In practice we find ourselves neglecting them, and seizing on those sub-titles which answer our purpose better. But the musical titles he chose do show what his art constantly tended to become, even if they do not answer in all respects to what it was. It would seem that painting can go no farther in the direction of Whistler's later work without ceasing altogether to be the art we have known by that name.

It is of no special significance that Whistler began the serious study of art as a pupil of Gleyre; it is much more significant that the earliest of the paintings exhibited by the Copley Society shows him as an admirer of Courbet. This is a portrait of himself, the head only, in a large black felt hat, and has been frequently reproduced. It was painted about 1859, and the rather violent light and shade, with black shadows, the yellowish tone of the flesh, and the attempt at powerful modelling, point unmistakably to the influence under which it was produced. Courbet's vigorous naturalism and rather coarse and boisterous strength is as unlike the spirit of Whistler as anything one can well conceive; but Courbet was the most prominent opponent of the old academic formulas at the precise moment when Whistler and Manet, Whistler's elder by one year, were beginning their careers, and they could but be attracted to him. Both impressionism and the radically different art which seems, just now, to be superseding it as an influence on the younger painters, owe their origin, in a manner, to Courbet. He proved that good painting could be done without regard to "the rules," and he set students to looking at nature for themselves; and we are therefore indebted to him for more than his own pictures. His direct influence on Whistler, however, was not very deep or lasting. Traces of it may perhaps be found, now and then, in the pictures painted within the next few years, but they soon disappear. Whistler may have been thinking of Courbet when he painted the Coast of Brittany in 1861—there may be even

a lingering reminiscence in "The Blue Wave" of 1862. Later than that one can find no specific resemblance to Courbet in Whistler's work. For still a year or two he occasionally produces a piece of representation, more or less realistic in intention, like "The Thames," in 1863, but by this time he is finding himself, and ceasing to attempt the things which it is not in him to do.

"The Coast of Brittany" and "The Thames" are not pictures which any one would be likely to care much about except for the after-work of the man who painted them. They are interesting because he did them, but they are not beautiful. It is different with three pictures painted in 1862, "The Blue Wave," "The Building of Westminster Bridge" and "The White Girl." Each of these remains a remarkable and beautiful work, not in all respects surpassed by anything the artist did afterwards. That which is most unlike the things which were to follow is the "Westminster Bridge," which, if it stood by itself, would seem the work of an artist of an entirely different type from that of Whistler. Its virtues are other than those which came specially to characterize him, while it is weakest in just those qualities in which he became strongest. It is not particularly fine in color, being of a somewhat conventional brownish tone throughout; neither is it distinguished by charm of linear pattern, though its intricate linear structure is interesting. As straightforward painting of nature it is vigorous and skilful, showing much clearness of vision and power of representation. But it is its treatment of subject and its ttitude toward humanity that mark it as something apart in the production of its author. Here, for once, there is something going on, and something very definite. The figures are very small, and insignificant as figures; but the power of humanity over nature, the many and strange inventions of man, loom large in it. This is no "arrangement" or "harmony"; it is a picture with a subject imaginatively conceived and powerfully rendered-a picture by an artist partly realist, partly romanticist, who seems destined to carry on in new fields and in a personal way the work of the school of Barbizon. Never again did Whistler do anything resembling it or show any signs of the kind of energy that it witnesses to.

In "The Blue Wave" we have more of Whistler as we know him, but we have at the same time both more naturalism and more conventionalism than we shall see later. Essentially it is an arrangement in blue and brown, but the brown is richer and deeper, the blue more intense, than he will ever make them again; and there is more occupation with the precise notation of form than in his maturer work. He is beginning to experiment with color, but he uses it in strong oppositions and with the aim of attaining fulness and force rather than refinement; while he hesitates to break too

sharply with realism or with the traditional methods of painting. It is rich and handsome, a fine and most effective picture, but besides the marines he painted some years afterward it seems a trifle heavy and sombre.

In these two pictures we have two phases of an interesting and highly promising artist, whose future course is not yet certain. "The White Girl" Whistler definitely announces himself as the painter he is to become. Here there is no more subject than in any portrait, no strong oppositions, no great amount of realization. The picture represents a girl in a white dress standing on a white skin before a white curtain, the only color, apart from the tones of flesh and hair, being a bit of blue in the matting on the floor and the hues of a few flowers which she has let fall. There is little firmness of construction or solidity of modelling in the flesh, which is reduced almost to one flat tone, and there is no especial ease or brilliancy of handling. The painting has evidently cost trouble in parts, and the color is a little lacking in perfect purity, the conventional brown not being yet entirely eliminated from the palette. The greatest charm of the work is in the sympathetic rendering of the face, not beautiful, but young and pure and sweet, and in the natural grace of the erect figure. It is somewhat timid and awkward work as yet, but in its reliance for artistic effect upon the decorative division of space, on grace of line, and on the delicate opposition of nicely discriminated tones, it is already very characteristic. The artist has found the road he was destined to tread. and henceforth steps aside from it but seldom.

In the years from 1861 to 1864, according to Mr. Freer, were painted a number of small sketches, owned by him, which show Whistler experimenting on the lines suggested in the "White Girl," and preluding such delightful early successes as the "Little White Girl" and the "Symphony in White No. 3." They are sketches only, without heads or hands or definite form, not completed pictures in any sense; but as sketches they are delicious, and the chance to see them in relation to the work for which they were a preparation is one of the things for which we are most grateful to this exhibition. When one remembers how lately Whistler himself had been under the influence of Courbet—remembers, also, that Manet was in the midst of his black manner, and that the later impressionism was not yet heard of—one realizes the great originality of their delicate, pure color and high key of light. composition they remind one of Japanese prints, but there is something Greek about the figures, as if Tanagra figurines could be flattened and painted upon a screen. Not only much of the later art of Whistler is here in germ, but all the art of Albert Moore.

In the ten or twelve years following Whistler produced almost all of the works which have ever achieved anything like popular success. In 1864 he painted the "Princesse du Pays de la Porcelaine"; in 1865 or 6 the "Little White Girl," and about the same time "The Music Room"; in 1867 the "Symphony in White, No. 3," which seems to be the last picture he signed with his name, and also the first which he signed with the butterfly which here appears in the first of its many forms. To the late sixties or early seventies belong the earliest of the "nocturnes" and of the later marines. The portrait of his mother and the "Carlyle" must have been done before 1874, and probably, also, the "Miss Alexander" and the "Rosa Corder," while the date of "The Balcony" is, conjecturally, about 1876. I know of no instance of a dated picture after 1867, and it is very difficult to make certain of one's chronology. It is to be hoped that someone will take the trouble to search all available records and gather all scattered information, and will give us, as nearly as possible, a chronological list of Whistler's works. the meantime it may be safely stated that the period from his thirtieth to his fortieth year was that in which he produced those pictures which, if they do not necessarily show his special qualities at their highest and finest, show them in the best balanced combination with others which have generally been considered desirable in art. It is the period in which his work, if not in all ways most characteristic, is most complete as we generally understand completeness.

Whether or not the work of this decade is considered Whistler's best will always be largely a matter of the personal equation of the critic. It is also, in a sense, a matter of small importance. The career is ended, the work is all done. The painter's reputation will stand upon what is best of him, whether it came early or late. If the work be fine and great, the man was a great artist, and whether he was greatest at forty or at sixty is, indeed, a matter of some interest, but one that does not and cannot affect his essential greatness.

"The Little White Girl" is, perhaps, the general favorite with visitors to Copley Hall, pleasing more people than any of the other pictures there shown. It owes this distinction partly to its very great merit, partly to what its author would, a little later, have thought to be extrinsic and eliminable qualities. Its appeal lies partly in the painting, partly in the things painted. It has no very definite subject—it is essentially an arrangement of exquisite tones in a delightful pattern—but the objects represented have more than their relative value as elements of the pattern; they are things capable, in themselves, of arousing interest and of giving pleasure. In the first place, there is physical beauty. Whistler

is thought to have painted it under the temporary influence of Rossetti, and certainly he never again produced anything which shows the same feeling for the beauty of womanhood. Character and expression continued to occupy him more than he would admit, but pure beauty of form and feature he never again represented with the same interest. The figure leans against a marble mantel, her head, in profile, pensively inclined, one arm stretched along the shelf, the other falling by her side, the hand holding a Japanese fan. Behind her is a mirror, and the reflection of her face therein is not beautiful, but her profile is, and the lines of her throat and of her graceful left hand are admirable. The dress is of some filmy substance, and its white, with that of the marble, contrasting with the black of the grate and the mysterious grays of the reflections in the mirror, are the main elements of the harmony; but there are pure and vivacious blues in the fan and in an Oriental vase, delicate tints of rose in the flowering azalea which fills the lower right-hand corner. These notes enliven the scheme, while the objects that make them are, as I have said, interesting things apart from the role they play. The azalea, particularly, charmingly drawn and painted, is altogether delightful. painting is flat, almost without shadows, a little dryer and sharperedged than later work, a matter of justly discriminated values and simple silhouettes; but there is substance in the figure, subtly expressed, everywhere but in the left hand, which is rather thin and papery. The art of choice and arrangement is greater than the ability of rendering, but the latter is not so noticeably deficient as to interfere greatly with one's enjoyment. The total effect is of extreme refinement and exquisite loveliness.

In "The Music Room" we have again a mirror in an important There are two figures in the room, a woman in a black riding habit who seems to be holding up something, the nature and position of which one does not quite understand, and a little girl in white buried in a book. In the mirror is the reflection of a third figure, whose place in the real room is also rather enigmatical, that of an elderly lady apparently playing on the piano. The girl is a charming figure, not quite realized, but very adequately sug-The riding habit is perfectly flat, but its rich black is pleasant to look at. The head and hands of its wearer remind one of Corot's flesh-painting-rather vague in form, a fine graypink in color, absolutely just in value. The great beauty of the picture, however, is in the wonderful painting of the accessories, the curtains and vases, and their reflections in the glass. One ceases to care what the figures are doing, or almost whether they are figures or not, as one studies the delicate color, the perfect tone, the fascinating lightness and fluidity of touch with which

these things are rendered. In spite of Whistler's query, his admirers are ever prone to "drag in Velasquez." Here, at least, is a bit of painting that the great Spaniard might have been proud to own.

Was it because he felt that in such a picture as this the still-life was, in a manner, better than the figures, that Whistler never makes so much of it again? For complete representation of objects this picture is perhaps his high-water mark. And in only one important picture of later date that I can remember, "The Balcony,"—a picture more purely Japanese than any other, in which representation has almost ceased to exist—does he put two or more figures on one canvas. Except as mere spots or suggestion of crowds his figures hereafter exist alone. He confines himself to the portrait-painter's problem of the single figure or even the single head. In the "Miss Alexander" there are still a few accessories a panelled wall, a garment thrown over a stool, a few daisies at the side—in the "Mother" there are only a straight curtain and a framed print, and in the Carlyle even the curtain is gone. In the "Rosa Corder" there is not even a wall, the black figure emerging from blacker space, and this is the commoner condition in his later portraits, though a gray wall or a curtain filling the whole background is now and then suggested. In the use of anything like positive color, also, Whistler becomes more sparing during this period. The "Mother" and the "Carlyle" are arrangements in black and gray, the Rosa Corder is an arrangement in black and brown. He even loses his interest in white, and the "Miss Alexander" seems to be the last picture in which white plays an important part. In "The Balcony" there is a bouquet of bright colors, but it is the last. The earliest nocturnes have still a powerful blue, though far less positive and intense than in earlier work, but it becomes less and less decided, fainter and grayer, or shifting into black. The variations of gray become his dominating preoccupation, and he distinguishes them with extraordinary subtlety.

The purely artistic elements of such a picture as the "Mother" are few and simple. A gray, a black, a little low-toned white, and the dim pink of the flesh, this is all of color. The right lines of the curtain and the baseboard, cutting the parallelogram of the canvas, are echoed by the smaller rectangle of the frame upon the wall, and diagonally across this background is drawn the austere silhouette of the figure, its boundaries simplified into long curves, delicately modulated, but with scarce a break or accident in all their length. Everything is sober and severe except for the one outbreak of capricious fancy in the dainty embroidery of the curtain, which lights up the picture like a smile on a grave face.

It is the masterly management of these elements—the perfect balance of the spaces so frankly outlined, the quality of the few tones of black or gray, the fine gradation of the curves-which gives the picture its rare distinction. These purely artistic matters were, perhaps, all that Whistler was consciously occupied with this beautiful arrangement of tones and lines and spaces was all he would admit he had produced—but the picture owes its popularity to quite other qualities. The public has insisted on "caring about the identity of the portrait," or at least about its character and humanity, and in feeling that such a "foreign" emotion as love has, somehow, got itself expressed on the canvas. The gentle refinement of the aged face, the placid pose, with hands folded in the lap, the sweetness and strength of character, the aroma of gentility, the peace of declining years—all these things have been rendered or suggested by the artist with reverent care and sympathy. One feels that he has so painted his mother that she becomes a type of the mother as she is for all of us, or as we should wish her to be, and we accuse him, in spite of his denial, of having made something finer and nobler and far more important than any "arrangement in gray and black," however exquisite.

It is ten years since I have seen this picture, and I have never seen the "Carlyle" or the "Miss Alexander," but I am fresh from seeing the "Rosa Corder." Here the scheme is black on black, a bit of gray in the gloved hand, and a single note of brown in the low riding-hat and feather. It is a canvas of the narrow, upright form which becomes henceforth so characteristic of Whistler's portraits, and the lines are more sinuous and graceful than severe, though with no slightest tendency to floridity. They are admirably expressive of the firm elasticity of youth and strength, and of the easy poise of a body in its prime. The head, turned over the shoulder, is again in profile, and in its low tone and lack of modelling seems, at first, somewhat sacrificed, but as one looks at it it grows more elegant and distinguished. Here also we have something more than mere arrangement—a sympathetic presentment of a human personality.

It is in such pictures as these that the comparison to Velasquez, so frequently made, is, if anywhere, justified. If any Western artist exercised anything like a permanent influence on Whistler it was the great Spaniard, but it seems to me more just to say that Whistler's talent resembled one side of that of Velasquez than that there was anything like imitation. Some of the things which Velasquez had done it was natural for Whistler to do, as it was natural for him to attain some of the qualities of Japanese art, and in the arrangement and division of space, the elegance of silhouette, the beauty of quiet tone, the richness of his blacks and

grays, the younger painter is nearly or quite the equal of the elder. The comparison, then, is natural, but it is rather overwhelming. Putting aside the mere abundance of Velasquez; putting aside his ability as an organizer of great spectacles like "The Lances" or his mastery of large compositions like the "Maids of Honor" or the "Spinners"; neglecting his horses and his dogs and everything but such single portraits as in their simplicity of scheme may be fitly compared with those of Whistler; and we have only to remember that another painter of our day, and a very different one, is also constantly compared to him to see how much of Velasquez is outside Whistler's range. If to all the qualities of Whistler's best portraits could be added all Sargent's sure notation of form and brilliancy of execution, we should have, not yet Velasquez, but something liker to him than anything done in two centuries past. How far the balance may be redressed by those things in Whistler's work which are not to be found in that of Velasquez, or of any one else, we may not yet say; but in the portrait of his mother Whistler is one of the most refined and delightful artists of the nineteenth century; Velasquez is one of the greatest painters of all time.

How far the absence from these portraits of Whistler's of substance, form, construction, modelling, is consequent on inability, how far on deliberate choice, is a question that perhaps admits of no definite answer. After all, if desire is not necessarily ability, a lack of desire is disability. One may not be able to do what one likes, but one cannot, in art, do what one does not like; and to say that an artist does not care for certain qualities is the same thing as to say he cannot attain them. It may be true that he could do this or that if he chose, but he cannot choose. He lacks the first essential ability, the ability to desire. Either from a lessening of physical vitality or a greater concentration on the purely musical elements of his art, then, Whistler did not choosecould not choose—to give us, after the early seventies, anything so complete as these three or four portraits; anything with their human interest, their quality of characterization, their degree of realization. "The Fur Jacket" is already slighter and looser, and after that his later portraits become more and more the "arrangements" he called them. The pigment grows ever thinner and more fluid, the edges disappear after the modelling, the figures grow ghostlike and unsubstantial, the hands cease to exist, and the heads become only a note of flesh-color in the general harmony. Perhaps the weakest of them all is the "Comte de Montesquiou-Fezensac," which is not even an agreeable arrangement either in line or color; one of the best is also a very late one, "L'Andalousienne," graceful in line, delicate in its differentiation of closely related grays, but with a face almost devoid of features.

It is not in his later portraits, which show no new invention of harmony to balance their loss of humanity, that the best work of the last thirty years of Whistler's life is to be found, but in that series of small canvases, "harmonies," "notes," "arrangements," "nocturnes," which are among the most characteristic, if not in all respects the finest, of his productions. They rarely exceed a footor two in dimensions, and many of them are only a few inches square. They are occasionally small single figures, more often merely heads-or they are bits of streets and shop fronts, river scenes, marines. Whistler was a city-dweller who took occasional trips to the sea-shore, and there is no sign of love for the country in any work of his; indeed, one can hardly say that there is any love for the sea, as such, in these later works—one can hardly imagine a yachtsman caring for Whistler's sea-pieces because they represent his favorite element. He treats the sea, as he does everything else, as a pretext for a harmony of two or three subtly discriminated tones, and it lends itself admirably to his purpose because of the lack of solid objects or of definite and generally recognizable forms. Definition and realization have become irksome and distasteful to him, and, whatever his subject, he gives as little of them as possible. Many of these things are true sketches, nearly instantaneous in execution, painted, almost, in an hour or two. Others have been long retained and worked over again and again, but never with the preoccupation of "finish." The labor has gone to the gradual refinement of the tones, the achievement of more perfect harmony, and the work is left, at the end, as vague and floating in its forms as at the beginning. It is even possible that the vagueness has increased with the progress of the work, and that the least definite statements are those which have been most pondered. The painter has come almost as nearly as is conceivable to a realization of his personal ideal—the ideal of painting purged of its representative elements, and brought to the condition of what is called "absolute music"—painting in which color, pattern, line, exist for themselves, with the least possible reference to anything external. But if we are refused so much that has hitherto pleased or interested us in painting, what we get we get with a singular intensity. Clear your mind of prepossessions, forget about meanings and intentions, forget about nature, forget about form or substance or definition—let the artist play to you, and you shall find his airs ravishing in their sweetness.

And they are airs which no one else has played. For this art differs from all the art of the past not only in that everything but the purely musical elements has been banished from it, but in that these elements are treated differently and are of a different kind and quality. It is not only that color and pattern and the material

beauty of paint are to stand alone, but that we are given a different color, a different pattern, a different material beauty from any we have known. In all these things the characteristic note of Whistler is extreme refinement and tenuity. To its extraordinary sensitiveness and delicacy of perception any fulness of sound is almost as distressing as noisiness, and splendor is perilously akin to vulgarity. In color he gives us no crashing climaxes, no vibrant, full-orchestrad harmonies—his is an art of nuances and shadings, of distinctions scarce to be followed by the ordinary eye. What he calls blue or green or rose, violet or grenat or gold, are the disembodied spirits of these colors, tinges and intimations of them rather than the colors themselves. Sometimes the tinge is so faint that no one else can perceive it, and sometimes what, to his consciousness, is the keynote of his composition, is so faintly sounded that, to another, it seems the least important note of all. Finally he wraps everything in the gray mystery of night, and his picture seems composed of nothing more substantial than the atmosphere itself.

So his lines are reduced to the fewest, and modulated with the most imperceptible fineness, and his actual use of material has been similarly sublimated. Not only could he not abide the rough hatchings of the impressionists or the heavy masses of paint of the modern Dutch or the followers of Dupré, but the rich textures of the Venetians, the close enamel of Holbein or Van Eyck, the crisp touches of Hals, are equally foreign to him. He has a strong sense for the beauty of material, but it is of material brought to the verge of immateriality. His paint is fluid, thin, dilute; his touch feather-light and melting. There may be twenty successive layers of pigment on the canvas, but it is scarce covered, and its texture shows everywhere. It is almost as if he painted with thought.

One feels thick-fingered and clumsy in trying to distinguish among these later works of Whistler—works in which a kind of art by suggestion has gone so far that one catches oneself wondering whether one has not been hypnotised into a belief in pictures which have no objective existence. It is to rub the bloom off them to examine them too closely. There are many of them in Copley Hall, and by no means all of the same quality, but they all seem too slight to bear handling, too lacking in the positive for description, too evanescent, almost, for separate recollection. They blend in one's memory like past twilights, and have, in the retrospect, little more individuality than last year's violets. Is it worth while to catalogue and annotate, to say that this is beautiful and that not so beautiful, this successful and that a failure? I have my notes, and even without them I recall a few things with

some distinctness—"Grenat et Or-Le Petit Cardinal," one of several variations in dim reds; "Symphony in Violet and Blue," a marine in which the violet is little more than gray, and the blue is but a faint blue-green; "Blue and Silver-Trouville," dainty and clear; and "Nocturne in Blue and Silver-Cremorne Lights," lovely in its pale opalescence. Then, "Nocturne in Black and Gold-The Falling Rocket," with its sprinkle of gold-dust on the blue-black darkness; and, most ghostlike of all, two nocturnes, "Grey and Silver-Chelsea Embankment," and "Blue and Silver-Battersea" Reach," so much alike and so devoid of nameable color that one fails to see how one has more blue or less gray than the other, but quite wonderful in their feeling of mystery and of palpable air. So one recalls other things, not so perfect, where the harmony has been missed, be it ever so slightly, and there is nothing to take its place. But it is not this or that picture that one remembers most clearly, it is the total impression of an art infinitely subtle, infinitely fastidious, tremulously intense; an art of exquisite sensibilities and fine nerves, of reticences and reservations; a music of muted strings.

Slight as are Whistler's later oils, his watercolors and pastels are yet slighter. Pastel is the slightest and most evanescent. seeming of materials; but surely no one has used it with such slightness as he. A few square inches of brown or gray paper, a few! chalk lines, lightly set down, a touch of color here and there—this makes up a pastel as Whistler conceived it. The subject is generally the figure, nude or lightly draped, but these are figures from which all the things on which the great figure-painters spent, their efforts have been eliminated. Here are no attempts to express structure or stress or pressure, still less to render solidity or the texture of flesh or even its color. The lines are of beautiful quality in themselves, but their charm is that of their own curvature as abstract lines and of their arrangement, their relative distance from each other, and the way in which they subdivide the space of paper. The touches of color are delightfully placed, but they represent nothing, though nature may have given the hint for their placing and the relative intensity of their hue. Light and shade, for which Whistler has never greatly cared, is eliminated entirely, and even truth of values, which he has retained longest of the qualities common to great painting, is now abandoned. Pretty much everything of our Western art has been left out as nonessential, and even that composition of light and dark, upon which the artists of the far East have always laid so much stress, has disappeared. With infinitely greater deftness and mastery, and now of set intention, as the ultimate expression of his ideal in art. Whistler has come back to the condition of those early sketches. already mentioned, which were the prelude to "The Little White

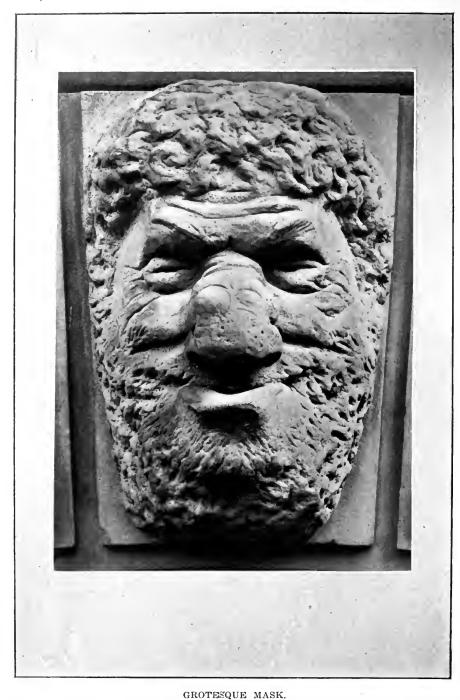
Girl" and "The Balcony." His material aiding him, he has sloughed off, more completely even than in his latest nocturnes, everything that can be sloughed and leave a vestige of painting as an art of representation. To this he was bound to come at last, if he lived long enough. It is impossible to imagine any further step that shall not lead to the tracing of purely meaningless lines and spots for the pleasant diversification of a surface. The Whistler who is most like the great artists of all times, as our Western world has known them, is the Whistler of the "Mother." The Whistler who is most entirely himself, pushing his own theories to their possible limit and relying exclusively upon his own special gifts, is the Whistler of the nocturnes and the pastels—a dainty, winged spirit, as light and as graceful as the butterfly he chose for his emblem.

Two or three interesting beginnings in directions which were to lead to nothing, a few captivating early pictures, perhaps half a dozen fine portraits, a hundred or two little pictures and pastels of ethereal charm—such is the baggage, slender enough it must be confessed, and, perhaps, a trifle fragile, with which the painter begins his voyage down the ages. One can imagine some of the abounding geniuses of the past, henceforth his fellow-travelers, looking at him with raised eyebrows. "Was, then, your time so impoverished that this seemed wealth to it?" It is, indeed, probable that in no other century could so great a reputatioin have been founded on work of this texture, but there are certain considerations which lead to a reasonable expectation of permanency for it. For it is not the men who do many things well, and achieve a high average of merit, whom the world most delights to honor, but the men who do one thing better than anybody else. Whistler has done certain things that no one else has done, given us certain sensations not to be had from other works than his. No one else has so well painted night, no one else so suggested mystery, no one so created an atmosphere. In no other art we know has the pleasure to be derived from tone and from the division of spaces been given so purely and so intensely. Even should these things be done again, and done better, he will have been the first to do them, and that of itself is a title to fame. And apart from the value of his own achievement, Whistler has been, and is, a potent influence on others, and such influences have their own special glory. He has had, and will have for a time, mere imitators who copy his methods and vainly hope to become great artists by painting everything in black, but there are thousands of others whose perceptions have been quickened by contact with his, who have learned to see more delicately because he has shown them how, whose eyes have been opened to beauties before unnoticed.

Was he a great master? Posterity will decide. At any rate, he was a true artist, and in an age too much dominated by the scientific spirit—an age given up to experiment and the desire to know and to record—he consistently devoted his beautiful talent to those things in art which are farthest removed from naturalism and from science, and in his impatience of a painting that is not always art created an art which almost ceases to be painting.

Kenyon Cox.





On the Façade of the Art Gallery at Bâle.

Arnold Böcklin, Sculptor.



THE PROFESSIONAL INVASION OF BALTIMORE.

(As Seen by Our Special Artist.)

A STRIKING EXAMPLE OF RAPIDITY IN CONSTRUCTION.

PROBABLY the best part of the transformation observed in the ways and means of modern building has been in the direction of greater dispatch in operations and consequent lessened costs and earlier returns for investments. With the types of the latest era now very well settled, plans do not



Jan. 2, 1903.—Foundations complete and steelwork carried above first floor.

is long or short.

work.

Dec. 15, 1902.—Excavation complete and column bases set.

change substantially between one building and another of the same class; and units, forms and equipments become susceptible of being reproduced, multiplied and knit together with increasing facility and quickness at the hands of skilfully directed operatives. The present type of office building will probably not be essentially changed for a generation. The desire will be to reproduce it in many cities, and it is important for investors to know the shortest period in which a great building can be erected and who are the contractors that have had the qualifying experience and possess

An office building being purely a commercial enterprise, everything that adds to the cost of constructing it beyond what is absolutely necessary is a waste; and therefore it makes a great difference to investors and owners whether their building is two years in course of erection or only six or eight months, and whether the interval during which the investment is bringing no return in the form of rents

the means for rapidly executing such

There is a case in point at Columbia, S. C., where the Columbia Real Estate



Jan. 15.—Granite water-table set and six tiers of beams in place.

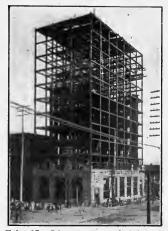


Feb. 4.—Limestone one story high and ten tiers of beams in place. Fireproofing in fourth tier.

Trust Co., otherwise the Loan Exchange National Bank, which Mr. Edwin W. Robertson is president. having twelve-story a building to erect, gave the contract to the Tidewater Building Company of New York. The directors knew and realized that they had purely a business proposition before them that having decided on a certain type of building, slightly varied to suit their particular locality, it was their duty as trustees to arrange for as quick a return from the surplus space

as possible. It was the first real skyscraper to be erected in that section of the South, therefore regarded as a particularly important operation. Should it prove a satisfactory investment, it will soon have neighbors of its own kind.

The speed with which the work was carried on by the Tidewater Building Company is shown in the accompanying illustrations. Begun about December 15th, the building was entirely finished about the first of September



Feb. 15.—Limestone to height of second-story window sills. Roof tier of beams in place and fireproofing in six stories.



March 13.—Brickwork seven stories

following. This would have been nearly record work even for New York City, and was a marvelous feat for the South, though not the best the same builders have accomplished. On January 1st of this year, 1904, a group of manufacturing buildings, covering twelve acres, of steel, concrete and brick work, was finished by the Tidewater Building Company at Wilmington, Del., after having been in course of erection only since the preceding The contract for the Repub-April. lican Club Building in New York City, a twelve-story steel frame structure, was taken by the Tidewater Building Company on May 6th, 1902, and in slightly more than five months from that date the building was enclosed. The Collier Building in New York, costing four hundred thousand dollars, was started by

the Tidewater Building Company on March 1st, 1900, and was occupied by the owners in the January following.

So far as he could, President Napier of the Tidewater Building Company used for the Columbia contract such help as was obtainable locally, but the expert foremen were brought from New York; and the company did its own ironwork, masonry, carpentry and painting. Brite & Bacon were the architects.

The Tidewater Building Company does work with dispatch in any part of the country, and in a style uniformly satisfactory.



April 1.-Brickwork to lower tier of cornice.

Mr. A. Milton Napier, the president and chief executive, was trained in the office of McKim, Mead & White, and his associates are, like himself, all practical men of high-class experience. Mr. H. Stevenson is vice-president and Mr. Jos. P. Ranney is secretary and treasurer. This company recognizes the value of time in purely



July 1.—External construction fin-

commercial projects, and from long practice in the best methods, in organizing large forces, and collecting and handling material, it can so lay out work that operatives can labor together without interruption, and by orderly progression and sequence produce the finished edifice in the shortest space of time and yet have it all well done. With the steadily increasing investment in single buildings it is a vital matter for owners to have their work done expeditiously. company has also erected a number of fine private dwellings, including Mr. George Crocker's at Ramsey's, N. J.

The main office of the Tidewater Building Company is at 25 West 26th Street, New York City. Branch 227 St. Paul Street, Baltimore, Md.

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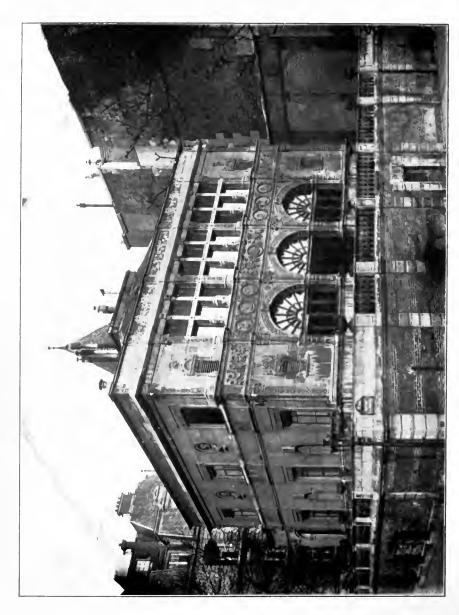
A RENAISSANCE HOUSE OF PARIS AND ITS HISTORY.



O a historian of the picturesque school, as well as to a man of imagination, old houses possess a romance which archaeologists are sometimes apt to overlook. The antiquary, over-zealous about mere inscriptions and the like, too often fails

beneath the surface of what he studies, losto penetrate ing in consequence that delightful aroma which clings to most ancient things, and unwittingly depriving his of one of its greatest charms. Old houses, as M. G. Lenôtre, in "Vielles Maisons, Vieux Papiers," has shown better than any other modern writer, can be made as fascinating as great human personalities, as entrancing as works of fiction—if studied in connection with the times through which they have passed. Instead of mere conglomerations of stone and mortar they then become living entities. Ancient buildings, indeed, ought always to be considered side by side with the events of history; for these, sometimes, have an important bearing on their destinies, and leave the most eloquent traces on their interiors and exteriors. In a slighter degree, of course, than is the case with the works of great writers, but in a manner no less certain, is it possible to read, in the changes which old houses undergo from century to century, a partial story of ancient and modern times.

France has witnessed so many political changes, so many tragic upheavals in the course of her history that in no other city in the world are romantic houses so numerous as in Paris. Unfortunately, the majority are devoid of any special architectural interest, time having laid a rough hand upon them; and, though their records may have become exceedingly rich, it has been at the expense of beauty of form. Of the few now remaining in which architectural beauty and wealth of historical association are fairly equally balanced is a four-century-old house, standing at the corner of the Rue Bayard and the Cours-la-Reine, whose record is unique. Few, however, of the thousands of people, Parisians and visitors alike,



who, passing it daily on the cars and in cabs, admire its admirable proportions, could tell you much about it beyond the fact that it is called the "Maison de François Ier." They are as equally ignorant of the noteworthy fact—at any rate for France, where houses are not commonly removed from place to place—that it once stood at Moret, forty miles from the capital, as of those details of its striking subsequent history which research has enabled me, in part, to reconstitute. They know vaguely that it is a fine specimen of Renaissance work, and they may, possibly, venture to inform you that the medallions which ornament its façade are by Jean Goujon, as has been done by certain learned German archaeologists—inaccurately. But that is all you will learn from them. Yet each group of beautifully sculptured children, each exquisite capital, each delicate pilaster, each inscription, almost every stone of this architectural jewel might tell them something.

Moret is a small country town of exceedingly ancient origin, situated on the river Loing, not far from where it joins the Seine, and about four miles from Fontainebleau. Enclosed on all sides by the magnificent forest, a better center could not be found by those engaged in sport, and it was this qualification which gave Francis I. ardent sportsman that he was-the idea of building there a small house where he and his retinue could assemble before or after the chase. Accordingly, he had built an elegant little "pied-á-terre" just as a wealthy sportsman of to-day will build for himself a shooting-box. That it was not intended to be used as a place of residence, but as a temporary house where rest and refreshment could be obtained, is evident from the manner in which the rooms were arranged. A portico with three arcades formed a sort of open vestibule which occupied almost the whole of the ground floor, and opened into a little courtvard, which, in all probability, was separated from the street by a low wall. A stybolate, breast-high, was the only thing preventing communication with the court. At right angles to the façade and on the left-hand side looking towards it was a beautiful doorway, surmounted by a magnificent salamander framed in an elaborately sculptured design and bearing an inscription, "Jevne Govvernement avit le vent"--"A vouthful government is influenced by the wind." On the first floor was a large room—a sort of banqueting hall—whose principal ornament was a choice mantelpiece. It was lighted by three small bays charmingly ornamented with bas-reliefs and in perfect keeping with the decoration of the remainder of the building. Finally, on the upper cornice of the façade was a second inscription—"Qvi acit frenare lingum sentvmque donare fortier est illo qvi frangit viribus vrbes"—"He who can curb his tongue and overcome his passions is stronger than he who takes cities by storm."

There cannot be the slightest doubt that this house was built for the personal use of Francis I. The salamander is an unmistakable sign-manual; the two inscriptions—one showing that he had not long been on the throne when his architects received orders to build, the other that he commenced to reign with the good intentions of a young man just starting in life—are additional proof. It is no mere supposition to say that he occupied it, on occasions, from time to time; no mere effort of the imagination to picture him there with his courtiers in the intervals of hunting and shooting. We have plenty of trustworthy records bearing on the life of this royal lover of art and letters, and we can, without difficulty, place him in the framework of this Moret house. His great passion—from his early youth to the last days of his life—was sport, which was so irresistibly attractive, indeed, that he frequently postponed important business of State, until after he had satisfied his craying for the excitement of the chase. He kept his Court continually moving from place to place—from Fontainebleau to Rambouillet, Amboise, St. Germain, Blois, Compiègne, Villers-Cotterets, Châtellerault, or Moutiers, as the case might be. The branches of sport which he followed were falconry and what was called "la vénerie de toiles," which was equivalent to a modern battue. But, unlike Louis XII., who was equally as keen a sportsman, he much preferred the latter to the former. "La vénerie des toiles" was under the captaincy of M. d'Annchaud, afterwards a Marshal of France, whose hundred archers were charged with the placing of sheets of canvas sufficiently large and broad to enclose that part of the forest which had been selected for the battue. When this had been done, beaters drove the game towards the sheets, and, a sufficient quantity having been encircled, Francis and his friends did slaughter with bow and arrow or arquebuse. The king's sporting outfit made no light load; fifty wagons were required to carry the canvas sheets and the planks and carpets for the tents. In addition to this "matériel," his hunting staff consisted of more than a dozen mounted huntsmen, fifty bloodhounds and six valets to look after them, and fifty ordinary sporting dogs in charge of six other men. The annual expenditure involved in these battues was about \$100. 000, but double this amount was spent on falconry. No fewer than three hundred hawks were kept by Francis I., who was so indefatigable that he hunted both summer and winter.

The little house at Moret must, therefore, have often been the scene of brilliant gatherings. In the summer Francis and his principal courtiers would meet in the vestibule on the ground floor, while the excited hounds gathered in the courtyard, moving hither and thither with tails waving on high and their tongues lolling, or eagerly crowding beneath the stylobate in hope of dainty morsels

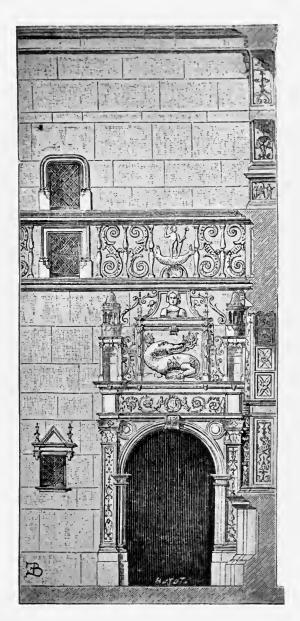


FRANÇOIS PREMIER.

From an engraving of the original painting by Nicolo dell'Abbate in the Cabinet des Estampes, Bibliothèque Nationale. This picture, painted from life, was given to the Cabinet des Estampes of the King by Comte de Caylus on June 15, 1765. Verses by Ronsard.

from the table of their royal master; in Winter he would partake of reireshment in the upper room, where the large open fireplace made it possible to have a roaring, crackling fire of logs. These repasts after the hunt was over must have been particularly delectable, if what Brantôme tells us is accurate; for he states that the king's table was "un vraie école," since all manner of subjects were discoursed upon. Great captains were always in attendance at his board, delighting the king with their narratives of renowned fights, and he loved to have learned men, writers and artists by his side when he ate. I doubt not that, on more than one occasion during his reign, the learned Pierre Duchâtel, called Castellanus, Bishop of Tulle, sat with him in the house at Moret and gave his opinion, as he was frequently called upon to do, on knotty points which arose during the conversation. And one can readily imagine the great protector of the arts turning his smiling, intelligent eves upon him on receiving some particularly ready and sound pronouncement, and saying, in much the same words as those once used to Benvenuto Cellini, at Fontainebleau, on receiving from him an exquisite cup and basin, "Castellanus, it is my real opinion that the ancient philosophers themselves could not have been given so wise an answer. I have read all their works, but never have they given me such high satisfaction as your words." Rarely did Francis I, let an opportunity slip of encouraging learning. As everyone knows, the part which he played in the Renaissance of art and letters was all important in the history of France. In regard to architecture, alone, he exercised a powerful influence; and it is certainly thanks to him, in a great measure, that we to-day possess such superb specimens of the work of Pierre Lescot, Jean Goujon, Philibert de l'Orme, Jean Bullant, Pierre Bontemps, and Germain Pilon. Which of these sculptor-architects it was who built and ornamented the Moret masterpiece is not on record. Its sculpture has frequently attributed to Jean Goujon; but, although the merits of some of the capitals, pilasters, and panels amply justify the supposition, we must be content to look upon them as the work of an unknown artist. The general opinion among authorities on the Renaissance is that the house in many years anterior to the time of the authors of the Fontaine des Innocents.

We will not follow the story of this Renaissance house subsequent to the reign of Francis I. What was its history under Henry II., under Francis II., under Charles IX., and their successors? Was it used for the purpose for which it had been built; or was it transformed into a dwelling house, a secluded and convenient place of rendezvous for royal lovers? On these points the records are silent. But it is almost certain that in the course of the next two hundred and thirty years—from the death of Francis I. to the



Revolution—the little house was neglected and gradually fell into ruins. Such was the state, at any rate, in which we find it about 1820. At the beginning of the last century attention being called to the beauty of its façade, a number of sketches were made by architects and artists. Some of these are still in existence, enabling us to judge with perfect accuracy of its original aspect. One, a pencil drawing by M. Derov, is reproduced as a frontispiece to Blancheton's "Vues pittoresque des chateaux de France;" careful engravings, based on another, are given in the second volume of N. X. Willemin's "Monuments Français Inédits" (1839); and there is a third in Bosc's "Dictionnaire raisonné d'architecture et des sciences et arts" (1878), here reproduced, showing the doorway already referred to, part of the frieze, and a small window which was to the left of the porch. The most interesting sketch, however, was an oil painting, executed prior to 1826, showing the façade and the doorway at right-angles to it, and recording the curious fact that the former "maison de chasse" of Francis I. was used at that time as the workshop or warehouse of a barrel-maker! The artist so I am told by a Parisian gentleman who saw the picture in the collection of M. Cain, the father of M. Georges Cain, the amiable curator of the Musée Carnavalet—depicted hoops and staves on Unfortunately, this valuable archæological record, which one could wish to see in the Cabinet des Estampes at the Bibliothèque Nationale, has disappeared; it was either lost or stolen, M. Cain tells me, in the removal to his own house of his late father's collection.

It was not for long, however, that the Moret house was put to such an unworthy use. A better fate was in store for it, and when the Government, in 1826, sold it to an art-lover of Paris, it entered upon a new existence. And not before it was time. At the latter end of the eighteenth and the beginning of the nineteenth century its rich decoration suffered terribly, and but for the timely intervention of this "amateur des arts" there is no doubt it would quickly have gone to utter wreck and ruin. This gentlemen had the principal portions of the building carefully transported, stone by stone, to Paris. There, on the Cours-la-Reine, these scrupulously numbered "débris" were applied to a fresh building. All pieces of sculpture which had become worn by time were recarved after the model of existing perfect specimens.

The restorers, as will be shown later on, were not always judicious in their work, and the arrangement and details of the Moret house were somewhat modified; but taking all things into consideration, they did not do so badly. It is easy, with the records at our disposal, to see where they deviated from the original plans, to distinguish the genuine examples of sixteenth century work from



MAISON FRANCOIS PREMIER. (The Salamander in the Courtyard.)

Cours-la-Reine, Paris.

modern copies, and to detect portions of architecture which did not exist in the Moret building. There can be no doubt, for instance, that all the right-hand side of the façade, with the exception of the bas-relief, which was originally above the arcade to the extreme right, is an invention of the restorers, whose object, it should be borne in mind, was not to produce an exact copy of the house at Moret, but to build an agreeable and harmonious house-front out of the fragments at their disposal. They were so heedless of archæological exactitude that they placed the exceedingly beautiful doorway at the back of the house, and, moreover, separated it into two portions. The porch itself is now in the vestibule, the salamander and accompanying ornamentation are let into the wall of a private house, which now adjoins the "Maison de François I." in the courtyard. But let us return to our comparison of the present façade with the original one.

"As to the first floor," says M. Léon Palustre in "La Renaissance en France," which, with Willemin's book, is the most reliable authority on the subject, "it also formed a large room lighted not by a series of windows in three groups but by the bays open only on the right of the keystone of each of the lower arcades. The mullions, ornamented with circles and little figures, did not exist, at any rate as they are to-day; but at the sides they formed a framework for blind-windows, which, because of the contrast of their solid surface, gave more value to the empty middle spaces." The termination of the building above the cornice, on which is the Latin inscription already given, is also the work of the restorers, since the exact character of the roof of the original house is unknown. Similarly, the seven medallions (but not the ornamental designs of fruit and flowers which encircle them) are modern work, and not very artistic specimens, either. Nevertheless, these medallions (representing Louis XII., Anne of Brittany, Francis II., Marguerite of Navarre, Henry II., Diana of Poitiers, and Francis I.) were actually attributed by the German critics Lübke and Kolloff to the sixteenth century! . Another slight addition, though not an architectural one, was an inscription on the cornice, viz.: "Inst. 1527 et rest. 1826." As Palustre says, the former date is inaccurate, the Moret house having undoubtedly been built much earlier in the sixteenth century; it was inspired, probably, by the latter date, as much as to say that it was almost exactly three hundred years since its erection.

In spite, however of these additions and alterations, the greater part of the façade of this Paris house is genuine work of the Renaissance. Note the perfect art with which the three large arcades are ornamented; the exquisitely delicate sculpture on the garlanded pilasters which separated them, and the sweet curves of



MAISON FRANÇOIS PREMIER.
(Decoration of the Vestibule.)

Cours-la-Reine, Paris.



MAISON FRANÇOIS PREMIER. (Bas-Relief to the Right of the Façade.)

Cours-la-Reine, Paris.

two of the capitals—those in which cupids figure. The last are particularly noteworthy, and especially the one with cornucopias and cupids swinging from lions' muzzles. Observe, also the archivolts, on whose outer face, on each side of a foliated console which protrudes at the keystone, are harmonious foliations, and other similar ornamentations. As to the intrados, the decoration consists of a series of sunken panels on which figure either plants and flowers alone or these alternating with scenes inspired by the Labors of Hercules. "No less remarkable," says Palustre, "is the execution of other cupids standing, two by two, between the rich crowns of foliage, which, in the compartment above the first arcade to the left, are certainly authentic. They share this quality with the ravishing bas-reliefs at each end of the frieze representing nude children occupied in various amusements. Probably, in the case of the one to the left, they represent some bacchanal festival; but it is impossible, in the one to the right, to interpret it, with Lübke, as a vintage-time scene. All the elements of such a composition are lacking and the trees in low-relief have only a distant resemblance to green pampres." To finish with the subject of architecture, the beauty of which will be fully apparent from the photographs in detail, I may point out that the "magnificent man-

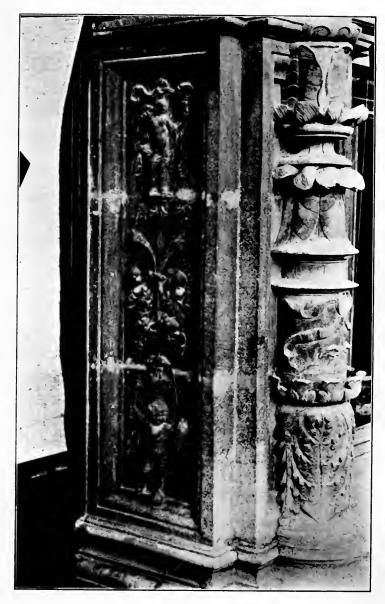


MAISON FRANÇOIS PREMIER.
(Bas-Relief to the Left of the Façade.)

Cours-la-Reine, Paris.

telpiece," mentioned by historians as being in the room on the first floor at Moret, does not exist in the house on the Cours-la-Reine. Yet it was undoubtedly intact in 1826 and, presumably, was removed to Paris with other remains, since I find a reference to it in a description of the present house in the "Magasin Pittoresque" for 1834. It would be interesting to know what has become of it.

After getting as far as the period of restoration in my investigations into the story of the "Maison de François Ier," it occurred to me that it would be well to make inquiries into the identity of the "amateur des arts" who removed it to Paris. Much to my astonishment, my search brought to light an unexpected store of romance. Information obtained from M. J. Darcel, the present owner, who purchased the house from M. Février, a notary, in 1881, led to the discovery that, about 1826, it was in the possession of the celebrated actress Mlle. Mars. But it was not she who acquired it from the Government in that year. The purchaser was a Colonel De Brac—a "beau garçon," whose heart had been captivated by her beauty; and the house, like his affection, was bestowed upon the still brilliant star of the Comédie-Française. Though fast approaching at that time her fiftieth year, and within fifteen years of her farewell performance, Anne Françoise Hippo-



MAISON FRANÇOIS PREMIER.

(A Panel in the Intrados of one of the Arcades.) .

Cours-la-Relne, Paris.



MAISON FRANÇOIS PREMIER.

(A Panel in the Intrados of one of the Arcades.)

Cours-la-Reine, Paris.



MAISON FRANÇOIS PREMIER. (One of the Capitals.)

Cours-la-Reine, Paris.



MAISON FRANÇOIS PREMIER.
(One of the Capitals.)

Cours-la-Reine, Paris.

lyte Boutet was as youthful on the stage and as beautiful as in the early days when she appeared before Napoleon. On the advent of the romantic drama (1830) she showed every bit as great talent as in the old repertory; and when, in 1841, she acted at the Theâtre Français as Célimène in "Le Misanthrope," and as the Marquise in "Fausses Confidences," she astonished everybody by her juvenility. Only two years before her retirement she had created the rôle of Mlle. de Belle-Isle, in Alexandre Dumas' play, in such a manner as to make people believe she would never grow old.

Mentioning her appearance before Napoleon reminds me that Mlle. Mars remained passionately attached to his memory until the end of her days. It is related by Léon Gozlan in his "Chateaux de France" that when, on one occasion, he was at Rambouillet there was pointed out to him a certain little kiosk on an island of a lake where the great Corsican used to meet her in secret. The circumstance is quite sufficient to explain her pronounced Napoleonic opinions, and the incidents which occurred at the Comédie-Française during the Restoration. It is said that Louis XVIII.'s body-guard decided to make a demonstration against her. Hearing of their intention, the great actress exclaimed: "What has the King's body-guard in common with Mars?"-a disdainful remark which did not mend matters. Appearing on the stage in a dress embroidered with bees and violets, the hostile party threw the entire theatre into an uproar. She was called upon to deny having spoken disrespectfully of the body-guard and to shout "Vive le Roi!" but she stoutly refused to do either. At last, out of all patience, she got over the difficulty by a flash of wit. "You request me," she said, "to cry 'Vive le Roi!' Well, I have said it." She appears, however, to have become reconciled after a time to the new "régime;" though, so strong was her attachment to Bonaparte and his cause, it is highly probable that her attitude was dictated merely by personal interests. Louis XVIII. settled upon her, as in the case of Talma, a pension of \$6,000 a year, and to have persisted in a course of stubborn resistance to the reigning family would have been financially unwise. Mile. Mars could never have too much money. She squandered several princely fortunes; had one of the finest mansions and the most beautiful diamonds in Paris; and, towards the end of her life, acquired a taste for speculation on the Bourse.

Now, this passion for gambling is closely connected with her ownership of the house on the Cours-la-Reine. She was the owner, not only of the "Maison de François Ier," but of a good deal of the land where the Rue Bayard, the Rue Jean Goujon, and the Rue François Ier are now situated. In disposing of this magnificent building site she determined that the little house which she had re-



MADEMOISELLE MARS.



MAISON FRANÇOIS PREMIER.

(Italian Mantelpiece in the room facing the Terrace.)

Cours-la-Reine, Paris.

ceived from Colonel De Brac should play a part. Her desire was to sell building plots at a higher price to the aristocracy, so she hit upon the happy plan of presenting the "Maison François Ier" to Henry, Duke of Bordeaux. To place a home built on the sacred remains of the "maison de chasse" of a great King of France in the possession of the heir to the throne was an idea which could not fail to charm the aristocracy and aid in the realization of her object. But, unhappily for Mlle. Mars' pocket, it was not she who founded the aristocratic quarter which the Cours-la-Reine, the Rue Bayard, and the Rue François Ier constitute to-day. The Revolution of



MAISON FRANÇOIS PREMIER. (Room facing the Terrace.)

Cours-la-Reine, Paris.

July, 1830, dashed her hopes to the ground. Charles X. and his grandson fled to England; Louis-Phillipe, Duke of Orleans, succeeded to the throne; and a serious financial crisis, in which Mlle. Mars was a heavy loser, followed on these political changes. The prospects of the Bonapartist party were at this time at so low an ebb that the only man to protest openly against the candidature to the throne of the Duke of Orleans was a Captain Dumoulin, who, on July 21st, appeared at the Hotel de Ville in a uniform so forgotten that the crowd mistook him for one of Charles X.'s

body-guard. On attempting to distribute several thousand copies of an Imperialistic proclamation he was attacked and only escaped with his life by taking refuge in a room occupied by Lafayette. Meanwhile, the young King of Rome was languishing at the Court of Vienna, where, two years later, he was to die.

Little more remains to be said of a house, the complete history of which is here related for the first time. It is now occupied by a gentleman, M. Darcel, who is a keen connoisseur of art, and who appreciates to the full the splendid artistic qualities of his property—qualities which he never wearies of pointing out to visitors. I must not omit to mention, also, that he is the possessor of many art treasures, including fine old furniture, ancient carvings, and an exceedingly beautiful Italian mantelpiece—the last-named being in the room on the ground floor opening on the terrace. Inside as well as outside the "Maison de François Ier" is beautified by art.

Bernard St. Lawrence.



MAISON FRANÇOIS PREMIER.
(Window to the left of the Façade.)
Cours-la-Reine, Paris.

DECORATIVE WORK IN VARIOUS METALS.

I.

Primitive Decorations in Iron and Bronze.



FRIEND who lived many years in Japan was walking across a deserted part of one of the great southern cities, once a busy quarter, but then burned over, when his foot struck something heavy and hard, yet none too resistant. Turning back he

pushed the object clear of the ashes and unearthed a curio which he presented to me on his return.

It is an octopus in bronze with snout and eyes pushed up on one side to simulate a face, the arms gathered under in small compass, more like waves or big moustaches than legs, the body swelled up to counterfeit the shaven head of a coolie above the eyes. To finish off the solemn comicality of the piece, a porter's knot is twisted around the bald head. The amusing adaptation of a marine monster to the head of a coolie, the whimsical expression of the creature, the sly caricature of a body of honest laborers for hire, all combine to produce a work of art of no mean order, while anyone conversant with bronze must admire the technical skill of the casting. Men who can work so deftly and play as they work are sure of the admiration of later generations.

This bronze was once part of some simple flimsy Japanese house or the furniture thereof. The bottom has been filed off in order to adapt it to a paperweight, and it stands before me on the library table now, blinking from protruding eyes with the slyest, most solemn air. There is no mark of maker or place, no inscription to give a clue to the period or forge. The able artisan who modeled it in beeswax is gone without a sign; but we may be sure that he enjoyed his work and that in order to produce it there was a public keen of appreciation which encouraged such trifles by purchasing them for their delectation—though with little interest in the artist who fashioned them.

The use of bronze in temple and house goes back to remote times. In literature we get a hint of it from the description given by Homer in the Odyssey of the palace of Alkinous, king of the Phaeacians, the palace with a threshold of bronze. "Brazen were the walls that ran this way and that from the threshold to the inmost chamber and round them was a frieze of blue, and golden were the doors that closed in the goodly house. Silver were the door-posts that were set on the brazen threshold and silver

the lintel thereupon, and the hook of the door was gold." The Phaeacians, embellished by the fancy of the poets, were in Homer's time perhaps a tradition of the lordly palaces in Crete, whose foundations have been explored by Evans. There is no reason to doubt that bronze and silver were used to clothe walls and doors, since we know that at early periods the gates of cities on the Euphrates were so treated. The description in the Bible of Solomon's temple suggests the same, where it speaks of the wood being "overlaid with gold," the roof covered with tiles of gold, and the porch embellished with the symbolical "pillars of brass" with capitals of molten brass decorated with lily work, chain work and pomegranates. Here we may suppose the columns were of wood on which plates of brass or bronze were fitted and held in place by nails, while the capitals of "molten brass" were castings. There is no reason to believe that the Phoenicians who built the temple for Solomon, or the architects of Egypt and Mesopotamia whom the Phoenicians copied, possessed the mechanical devices for casting, transporting and setting up such large objects in one solid piece as the pillars in the porch of the temple.

The description of the capitals of "molten brass" will recall the argument that the prototype of the so-called Corinthian Greek capital as we know it must have been originally of metal, because the foliage on it is too elaborate and undercut to have been first carved in wood or stone. Its title of Corinthian rests on no historical basis worthy of the name, but the fact that Corinth was as celebrated for its metal work as for its pottery may be noted as a point in favor of the supposition that elaborate capitals for columns were once cast at Corinth and that after these bronze capitals were copied in stone in Asia Minor and Italy, and occasionally elsewhere in Greece itself, the term Corinthian adhered to them. At the same time we have no evidence of the existence of solid metal capitals and very imperishable things they are, if once they get buried in any of the countries about the Mediterranean. On the other hand the metal plates of ancient tombs within and without, the overlays of bronze on gates and temple walls and other easily portable bits of metal in architecture were, of course, the first objects to be taken from a ruined house or temple or tomb after it was given over to plunder. So that the absence of such things from ancient sites does not prove they were unknown.

Iron, on the other hand, had no such records from antiquity to boast of like bronze, though its use for tools and weapons goes far back. So far as architecture is concerned, iron is a metal altogether modern in its use, but it is making up for lost time. Within one century it has driven stone out of the field for the construction of bridges and within the last half century we have instances

of iron churches, iron domes for great public edifices, iron markets, railway stations, office buildings, iron for dwellings and for sheds and barns in agricultural countries. England led the way in the use of iron for bridges more than a century ago, and France, a country that values more than any other the precedents of classical times, erected at Paris a number of churches of iron, Saint Eugène and Saint Augustin, for example. Just now we are about to see the state of Alabama casting in iron a statue fifty feet high as the contribution of her iron industries to the world's fair at St. Louis.

The very word we use for the metal in question is a puzzle to those who delve into the origins of terms. Most of the Aryan peoples use words for iron that hark back to the same root, for Latin ferrum merely retains the "f" which has fallen before our word from German "eisen" and Norse and Irish "iarn." We can see that also in the Irish word "fiarlann," a curved blade, where the "f" still adheres. The best we can do is to suppose that it comes down from some general term for ore, such as Sanskrit shows in "ayas," Latin in "aes" and German in "erz." But then we can make little of such forms as "sidereos" in Greek and "rauta" in Finnish. The impression we get from this, however, is the great antiquity of the metal, contrary to the idea formerly prevalent that bronze is an older metal in the hand of primitive man than iron.

As to "bronze" we are not much better off, but the testimony of language seems to corroborate the idea that it is a metal vounger in history than iron. Attempts have been made to ally it with "brown," owing to its color, the trail leading back through an Italian term, brunezza, swarthiness; also with "to burn," because it was used for soldering metals. Those who derive the names of metals from places whence they were imported, as currants were so called because they came from Corinth, propose the town of Brundisium in South Italy through which they imagine the metal was imported from the Levant. Copper (cuprum) was certainly named from the island of Cyprus; so the analogy is pushed that this alloy of copper and tin or zinc was named from the "Brundisian" metal. the term becoming "bronzo" for short. This etymology has not been received with enthusiasm. Be that as it may, we are more interested in the uses to which these two metals are put in modern times than in the fancies of the philologist.

Although it is evident that bronze weapons were easier to make and easier to repair and did not rust like iron, so that they were both cheaper and more convenient, it is more than probable that iron was known in what is called the Bronze Age. Arrow and spear heads of different forms were made at the same time,



ANCIENT CHARIOT, COVERED WITH BRONZE, METROPOLITAN MUSEUM.





also iron swords. But where moisture can reach it, iron is soon destroyed by rust, so that the earth and waters yield many bronze objects, while the absence of things in the other metal does not necessarily mean they did not exist. On the contrary, we may believe that from the streams and rocks and wherever else iron could be mined without trouble this metal was taken, though in less quantities than bronze and put to use under greater difficulties. Hence the peculiar importance given to the iron forge and the blacksmith among primitive people.

The ancient religions of northern Europe have glorified the work of the forge by giving the hammer to Scandinavian Thor and Gaulish Taranis, gods who used the celestial hammer as Zeus used the thunderbolts. We recognize the impression made upon barbaric nations by the wonder-working combination of fire and wind, the shop of the blacksmith becoming a place of magic. Endless are the variations in folk lore on this fruitful theme. From Greece we have descriptions of the forging of armor by Hephaistos and from Finland imaginative details of the wondersmith Ilmarinen, who was very properly allied to the gods of air. From the literature of old Ireland we have a pen picture of an establishment for the forging of iron weapons in the story of the battle of Magh Mucruihme (Mov Muckroo), from the Book of Munster. King Art, the chief king of Ireland, whose period is set by the Irish annalists in the second century after Christ, takes a solitary ramble on the day before the decisive battle waged against an army of rebels and foreign mercenaries from Great Britain and Gaul.

He chanced to stray and wander from his path; but had not gone far when he saw the branchy, thick foliaged wood and heard what surprised him much, the "great thunder, the heavy tramp, great loud rattle and reverberating sounds and commotion on all sides, and he saw the boarded spear-factory with its cleanbordered smoke chimney upon it." It was extensive, broad-yarded and had seven noble wide doorways. This great edifice was not, however, a place of ease and rest—"owing to the active rubbing of the blades on the grinding stones, the expert working of the tongs, the noise of the working of the bellows, the sledges and the anvils, the roar of the fires on the hearths, the hissing screech of the edged weapons when being tempered, the shrill noise or clashing of the hard-tempered, tough-bending swords that were being rubbed with the files and the simultaneous exertions of the pupilarmorers (Felmacs), the apprentices (Foglomantai) and the brave men working with those tools, so that endless black, smoky, opaque clouds, enveloping and concealing everything, and showers of red, fiery sparks were emitted from the broad sides and great flanks of that forge (ceardha)."



ANCIENT BRONZE CHARIOT, SIDE VIEW.



ANCIENT BRONZE CHARIOT, FROM THE FRONT.

Speaking of Ireland, it is not a little curious to find that bronze was used in the interiors of the houses of chieftains—who lived in constant close contact with their retainers—and especially on the couches of the great assembly hall. The early buildings in Ireland were of wattle and thatch, often circular in shape, having a fireplace in the middle with a hole in the conical roof for the escape of smoke. Wood was more rarely used as a material for building, while only later, perhaps as late as the conquest of England by William, were stone buildings erected to any great extent, even for churches. Exception, of course, must be taken for the small oratories and the round towers; also for the beehive cabins in those parts of Ireland where a great scarcity of trees forced the inhabitants to construct stone huts. The fronts of the couches between the fireplace and outer wall were often covered with bronze.

The old stories speak of canopies of bronze or silver over the king's couch. Bronze or silver pillars supported the canopy. While the bards gave rein to their imagination when describing such things, the foundation of their sketch is always an actual object. Thus, from the description of the circular palace of King Ailill and Queen Meave (the original of Queen Mab in English poetry), we learn that bronze was used as an embellishment of the interior fittings, just as among the Assyrians and the Phaeacians of Homer. This circular house was in four compartments, each compartment having seven divisions for couches reaching from the wall to the central fireplace.

"A front of bronze upon every couch; facings of red yew with moulded ornamentations upon them all. Three columns of bronze in the front of every couch. Seven strips of bronze from the concave roof of the couch (the canopy) to the roof of the house. The house was made of fir and covered with shingles on the outside. There were sixteen windows to the house with doors of bronze upon each of them. A yoke of bronze across the door into the courtyard. Four pillars of bronze on the couch of Aillil and Meave and ornamentations of bronze upon them all; and the couch was in the real centre of the house. Two railings of silver embellished with gold about it. A silver wand in front capable of reaching with its sound the centre of the courtyard of the house."

We may suppose that this was only one building among many close together within the wall of the royal abode in Cruachan, for others are mentioned. It was the assembly house for the royal couple, their courtiers and guests, the couches representing chairs of state, but capable of being used for sleeping as well as feasting. When Ailill wished silence or desired to stop a discussion that

boded a quarrel he seized the silver wand before his couch and striking the bronze canopy supported by the four bronze columns gave notice by the clang that conversation should cease.

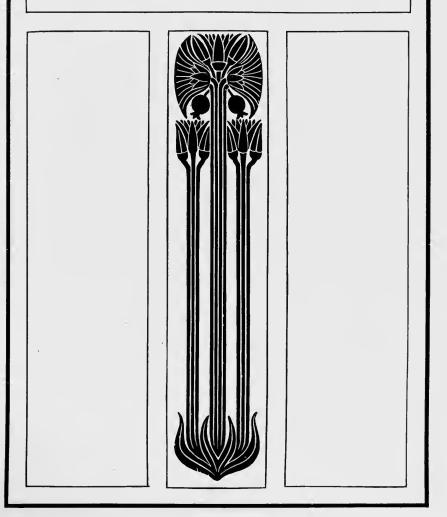
That there ever existed literally such a palace it is not necessary to suppose; but the liberal use of copper, bronze and brass among the early people of Europe, the remains of ancient chariots, shields, war-horns and helmets of bronze in the museums, which have been found in Italy, France, Germany, Scandinavia and Ireland in the bogs and in graves, give us to understand that such a description as this was based on facts and that during certain periods the smiths and bronze-founders of Ireland were nowise behind the artificers of the rest of Europe, more especially during those centuries when the continent was ravaged by the wars that destroyed the power of the Roman Empire.

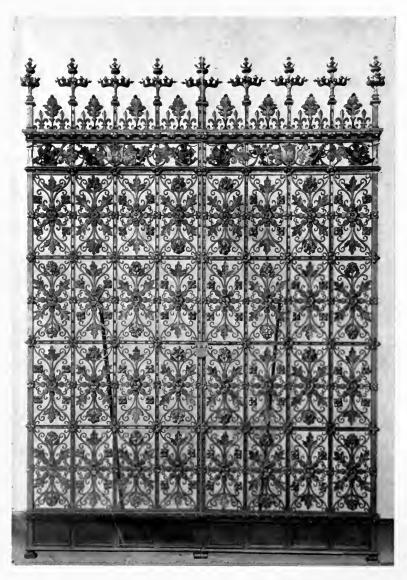
The covering of gates, doors, windows and fronts of couches with sheet bronze which we find in Assyria, ancient Italy and old Ireland, could not have had its origin in a feeling for decoration, but must have had a practical purpose at first. Evidently it was to give a stay to the attacks of fire. The enemy could not burn gates and doors if sheathed with metal. The front of couches was protected from the sparks from the wood fires burning in the centre of the primitive house. Later came the impulse to make the safeguards beautiful. In their storehouses, built of thick plaster walls and wood, the Japanese use bronze to offer resistance to the fires that devastate their towns. Bronze plates are also employed to bind together the wood of boxes and large carvings. These are useful, but the artistic sense of the Japanese has made them things of beauty by hammering and chiseling the metal and stamping them out in forms that suggest the leaves of plants and trees; gilding and lacquer are often further means of embellishment. Especially do the Japanese beautify and accentuate the joints of wooden construction by such tastefully shaped and chiseled, hammered and colored applications of metal.

This slight sketch of the employment of metals in a decorative way among the old peoples might be extended to embrace those of Syria, Persia and India, and instances might be given from tribes in Central Africa. But I am not reviewing the records of the past. All that is necessary is to recall the fact that there are many ways for the use of metals within and without our public and private buildings which are never tried in modern times. On the other hand, we employ metals in a thousand ways the ancients and the Orientals never dreamed of.

Charles de Kay.

SOME EXAMPLES OF MODERN ORNAMENTAL WORK IN METALS





SCREEN IN ST. MARK'S CHURCH, PHILADELPHIA, PA.

Executed by the Sterling Bronze Co.

Cope & Stewardson, Architects.



ALTAR PIECE—CHURCH OF ST. IGNATIUS, NEW YORK CITY. Executed by the Gorham Manufacturing Co.



(Building of the Land Title and Trust Company, Philadelphia, Pa.)

Executed by the Chicago Ornamental Iron Works.

D. H. Burnham & Co., Architects.



BRONZE TABLET.

Executed by W. S. Tyler Co.

Hubbel & Benes, Architects.



Illinois Trust and Savings Bank.

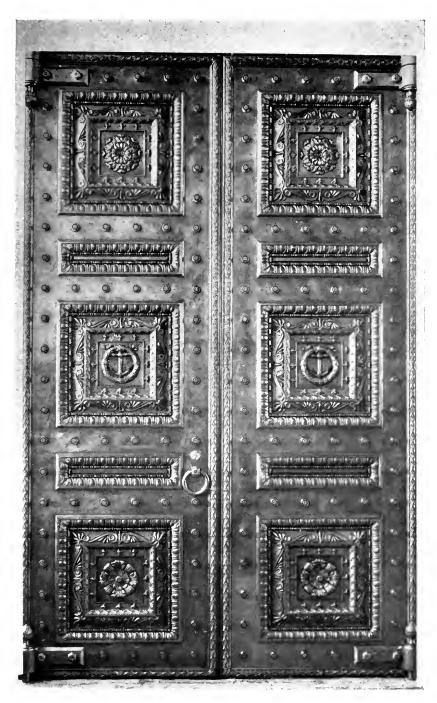
Executed by Winslow Bros. & Co. D. H. Burnham & Co., Architects.



SCREEN. Executed by C. Colnik Manufacturing Co.



 $\begin{array}{c} {\rm STANDARD} \ \ {\rm FOR} \ \ {\rm ELECTRIC} \ \ {\rm LAMPS} \ \ {\rm OF} \ \ {\rm WROUGHT} \ \ {\rm IRON}. \\ {\rm Executed} \ \ {\rm by} \ \ {\rm Sterling} \ \ {\rm Bronze} \ \ {\rm Co}. \end{array}$



BRONZE DOORS.

Executed by Gorham Manufacturing Co.

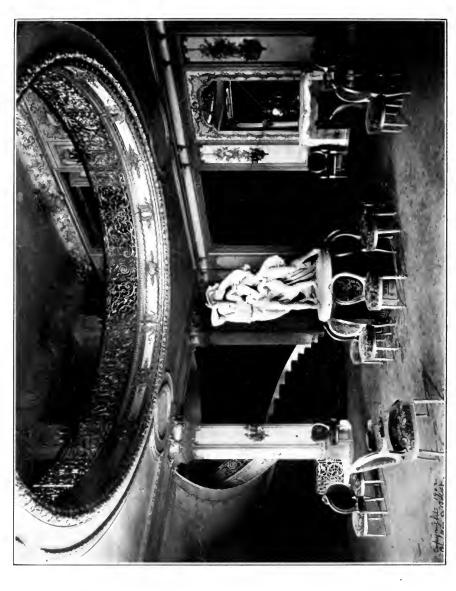


WROUGHT-IRON DOORS.

Executed by William H. Jackson Company.



GRILLE IN SMITHSONIAN INSTITUTE, WASHINGTON, D. C. Executed by John Williams.



THE FIRST CONCRETE SKYSCRAPER.



HILE it may be some time before all the lessons of the great Baltimore fire will have been learned, one point, at least, appears to have been clearly demonstrated, which is that concrete-steel construction went through the terrible ordeal with remarkable results, and has thereby demonstrated its superi-

ority as structural material for buildings. A small four-story building with a cast-iron front located in the heart of the burned district, was originally a brick building, with ordinary wooden joist floors. Recently, however, the floors were taken out and the entire interior reconstructed with concrete-steel columns, girders and floors, while the brick walls were retained for the enclosure of the building. The fire demolished a large portion of the walls, but the entire concrete construction, columns, girders and floors, remained standing uninjured by the fire and intact, except some slight bruises inflicted by falling walls. What a pity that the walls, too, had not been of concrete; for in such case the result must surely have been very different.

In view, therefore, of the remarkable test which this wonderful material so successfully withstood, the entire architectural and engineering professions, as well as the builders and the building public, should be interested to know that while concrete-steel is not by any means a new material, or rather combination of materials. and has been seriously taken up only in recent years, it has nevertheless long since passed the experimental stage, and fully demonstrated its general adaptability to the many complex problems of modern building, even to the most exacting of all; the skyscraper—the first example of which is the Ingalls Building, built on the northeast corner of Fourth and Vine Streets, Cincinnati, Ohio. It is, indeed, an accomplished fact—the first concrete skyscraper. It was begun in the fall of 1902 and has just been completed, having required in its erection but very little longer time than the standard steel cage type would have done, and at probably somewhat less cost. It is but fair to add, also, that in the next building of this kind not only the cost, but also the time required for completion, would undoubtedly be considerably reduced; and without question this process will be carried to a much higher development as the material comes to be more thoroughly studied and understood. The rapidly increasing production of high-grade Portland cement in this country cannot fail to help further in reducing the cost and insuring the popularity of the construction.



THE INGALLS BUILDING.

Cincinnati, Ohio.

The Ingalls Building occupies the entire area of a corner lot, 50x100 feet, and is fifteen stories and a full attic, practically sixteen stories, rising to a height of 210 feet above the sidewalks. The one-half of the basement is the usual twelve feet deep; but the other half, containing the power plant, is twenty feet deep. The foundations extend five feet below this, so that the entire height of the structure from the bottom of the foundation is 235 feet, entirely concrete-steel. In fact, it is a concrete box of 8-inch walls, with concrete floors and roof, concrete beams, concrete columns, concrete stairs; the whole entirely devoid of the usual I-beams, Z-bars, angle irons, plates, rivets and bolts. It consists merely of bars embedded in concrete, with the ends interlaced, making actually a complete concrete monolith of the entire building, covered on the exterior with a veneer from four to six inches thick of white marble for the lower three stories, glazed gray brick for the next eleven, and glazed white terra cotta for the top story and cornice.

The principles of concrete-steel are rapidly coming to be fairly well understood, especially so by the structural engineers; for, after all, it is primarily an engineering problem. But without question, a large proportion of the profession, and certainly the great majority of architects have not as yet had actual experience in its use, and perhaps have not given the subject the serious consideration which it deserves.

A brief description, therefore, may not be out of place at this point. In the first place then, let it be understood that for structural purposes the concrete should be made of strictly high-grade Portland cement, clean sand, containing, if possible, grains of variable size, and crushed stone or gravel. In the superstructure, limestone should not be used, as it would too readily be injured in a fire. Such concrete should be dense, that is to say, the voids should be well filled, and all thoroughly tamped. Enough water should be used to make a soft concrete, so as to insure perfect contact with the steel bars; for concrete-steel, it must be remembered, depends for its strength chiefly upon the adhesion between the concrete and the steel. The concrete itself is figured only in compression, never in tension; and wherever tension occurs, this is to be taken up by the steel bars; as, for instance, in the bottom of a beam or footing, or near the surface of a column where wind or other bending stresses must be considered. The compression in columns is taken up chiefly by the concrete; but where this is not sufficient, vertical steel bars are inserted, which, however, must be thoroughly tied together to prevent spreading. stresses in beams and columns are taken up first by the concrete, but this must be reinforced by bars placed across the line of shear.

The floors are preferably made in slabs of uniform thickness and



THE INGALLS BUILDING. Showing Method of Construction.

Cincinnati, Ohio.

Elzner & Anderson, Architects.

reinforced near the underside with bars of steel mesh of various forms. It is of utmost importance, however, that the amount of steel used should be determined by actual calculation, and not by guesswork or rule of thumb, as is apt to be the case. Walls, if used merely as curtain walls, may be as thin as three to four inches, or not more than six to eight inches, as may be required by the depth of the window box. They should, however, be reinforced by a network of bars, placed not over three or four feet apart both vertically and horizontally, to prevent shrinkage cracks.

In the Ingalls Building, described here, a system of cold-twisted square bars was used throughout. This gives excellent results, due to the greatly increased tensile strength of the bars after twisting, and the mechanical grip of the twisted bar on the concrete.

The floors are continuous slabs 5 inches thick, reinforced with a mesh of 3-inch square twisted steel bars from 18 to 20 inches on centers in both directions and strengthened by a beam or rib across the center of the column bay of 16x32 feet, dividing this into two panels, each 16 feet square, without any other supporting beams.

The columns have stiffening bars placed on two opposite sides near the surface to take the wind strains. They are further reinforced near the center by compression bars, which take up all such load as may be required in excess of the carrying capacity of the concrete alone. These bars not being in tension need not be twisted, and accordingly plain round bars were used of various sizes, according to location, from 2½ to 3½ inches in the basement, diminishing in numbers and sizes in succeeding stories until they were reduced to 1-inch and then entirely abandoned at about the tenth floor, from which point on, the concrete was sufficient to do all the work. The interior or compression bars had the ends milled off and were joined just above the floor level by a sleeve of steam pipe, a trifle larger than the bars and grouted with cement. They were then tied together firmly at three or four points in the height by small bars bent around them. The exterior or wind bars were joined in the center of the story height by splices, which consisted of several smallers bars wired about the joint. The columns were further reinforced by means of hoops of 4-inch bars, placed around all the bars near the surface at intervals of from 12 to 18 inches throughout the height. As stated before, these prevent the spreading of the bars and take up the excess of vertical shear.

The question has been asked as to how the girders were connected to the columns. Very simple, indeed; the girder bars merely extend in between the column bars and the concrete of the one being monolithic with that of the other completes and perfects the connection, than which nothing could be more secure. The walls



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above the piers of the lower two stories are 8 inches thick and afford the best possible system of wind bracing, inasmuch as the entire mass between the head of one window and the sill of the one next above is figured as a beam with rods top and bottom.

The method of supporting the exterior facing of marble, brick, or terra cotta, as the case may be, is as simple as it is effective. In the case of the marblework or granite, if such be used, for the lower stories, a concrete ledge or corbel is formed around the



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Showing Method of Floor Construction.

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piers just below the sidewalk level, and these afford the necessary foundation for such face work.

In the case of the face brick above, the various floor slabs are merely extended out beyond the wall three inches. This forms a ledge for the support of the brick facing, each story being independent of the other, and is afterward covered with 1-inch tile, or whatever may be desired.

All the face work, however, is securely anchored by means of round wrought-iron bars which are built into the concrete by boring holes of proper size through the wood forms and inserting the anchors, which are perfectly straight at the time, but are afterwards bent to suit; they must be straight so that the form work can be drawn over them upon being removed, when the concrete has sufficiently set.

In case of the cornice, which is of terra cotta, the roof slab was simply projected out as a cantilever to the required distance, which in this case was 5 feet. Sleeves of sheet iron were inserted at proper points and remained built into the concrete, and bolts to secure the terra cotta were afterward inserted through them and grouted in place.

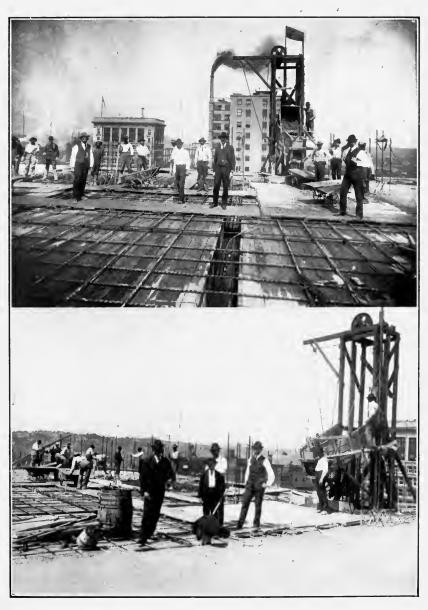
In a brief sketch like this, it would be impossible to describe the points of advantage peculiar to this method of construction. There are many, and it might suffice to say that numerous new problems are encountered, and while they are all solved in a satisfactory manner, it must be remembered that this is the first attempt to make a consistent application of the concrete-steel system to the skyscraper problem. It has apparently been eminently satisfactory, yet it is not claimed to be final in all respects, and there will undoubtedly be marked improvements here and there as the system develops.

Let us hope that engineers and architects may apply themselves earnestly to the question, so that little time may be lost in perfecting at last a rational system of construction, which will make impossible such disastrous fires as that of Baltimore.

During the progress of the work on the Ingalls Building, some men of great ability who should have known better, predicted that the structure would never reach the roof, and that even if it did, it would certainly crack all to pieces by shrinkage and that it could not possibly withstand wind pressure. The facts are that it did reach the roof; that there are no shrinkage cracks, and that the building not only has not blown over, but that in the highest winds, there is not even a perceptible tremor, and that too with concrete walls only eight inches thick from bottom to top, and the floors but five inches thick in unbroken slabs sixteen feet square, a portion of which on the second floor carries a bank vault weighing nearly a hundred tons.

Such and other equally absurd arguments having fallen to the ground. The opponents of this construction pointed first to what they were pleased to call excessively large columns; then they referred to failures of various concrete constructions, and finally discovered that the steel building could be erected more rapidly than the concrete one.

These arguments, which appear to be the only ones left to the opponents of concrete, are really not more substantial than the others. In the first place, the column design, especially in the lower portion of the structure, was almost wholly a new proposition, and



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was largely controlled by a spirit of conservatism, which was but natural in so radical a departure. As a matter of fact the columns might readily be made much smaller, perhaps not much larger than a properly fireproofed steel column. Manifestly the sizes of concrete structural members have not yet been reduced to the most economical basis, and it may, and undoubtedly will, require some little time, for since it is a comparatively new field of engineering, it must have time to grow. But that it will grow and will mature



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Showing Method of Stair Construction.
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just as steel engineering did, there can be no doubt, for we have but to look at the research of such men as Considère and others, to marvel at the possibilities in store for us with this remarkable material.

Regarding the failures of concrete constructions which have occurred and which are much to be deplored, it is only fair to say that the popularity of the new method has been so great that anybody and everybody has rushed into it, and as will happen in such events,

without stopping to secure experienced foremen or engineers, who, by the way, must naturally be scarce in these first few years of development. But time will correct all this, as it will also the last argument: that of increased facility of erection. If the first concrete skyscraper required only a few months longer in erection than did the most recent one in steel, which has passed through nearly a generation of development, it cannot be difficult to believe that in a few years this slight difference in time will not only disappear, but that in this, as in all other points, the race will be to the concrete.

Now let us view the question from a purely architectural standpoint. We have been told over and over again that the skyscraper
problem still remains unsolved. The critics will have it that there
must be no imitation or representation of masonry construction,
and that in some way or other still to be discovered or invented,
the steel skeleton must find adequate expression through its fireproof casings. Perhaps so; but it will be a difficult thing to do
with entire consistency. Again, if the dress is not to be an imitation, even of masonry, then it is clear that we cannot well have a
dress at all, and be truthful in our design. And since the building
laws very properly require the steel skeleton to be covered, we
cannot escape the use of an architectural dress. In other words,
as long as the visible architecture of the steel skeleton building
will, as it evidently must, remain a mere sham construction, the
critics will never be able to accord it a place in true art.

The only way out of the dilemma, therefore, would seem to turn to concrete, and see what solution this construction has to offer. Already it is beginning to assert itself; slowly, of course, but surely. Before long it will enter into friendly rivalry with steel; then will follow sharp competition, and finally a struggle for popularity. Why?

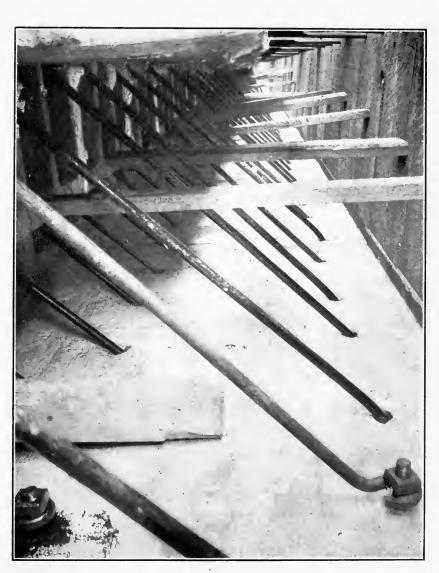
Because, first of all, concrete will form a better investment. Did it not pass through the terrible Baltimore fire better than steel? And this fact carries with it a long story of incidental fire losses, greater endurance, preservation, and what not?

Then, too, it will be considerably cheaper. It requires a great deal of capital these days, and always will, to equip and operate a steel plant, and the price of structural steel has been pretty well settled, and is not likely ever to be very much less than it has been. Moreover, it can be produced only in certain limited locations, which involves long hauls and heavy freight bills.

On the other hand, the manufacture of Portland cement involves a comparatively small amount of capital and very small operating expenses. Deposits of suitable material are being discovered everywhere in all parts of the country (and we are only interested in this



THE INGALLS BUILDING. Showing Method of Construction.



THE INGALLS BUILDING. Showing Method of Construction.

country at present), and cement plants are springing up in most surprising numbers. This activity is bound to continue in an increasing ratio as the demand for this wonderful material grows. It follows, therefore, that production is not susceptible to the control of combines to such an extent as is the case with steel; the result of which naturally will be relatively lower prices for cement.

Now to turn to the third argument in behalf of concrete. This will appeal to our friends the critics, for it deals with the purely architectural question, which, after all, is the greatest and highest and will endure long after all others have been silenced. Inasmuch as a concrete building is not built up like masonry, but is actually poured into a mould in its entirety, it at once becomes a monolithic structure, every particle of which is doing structural duty; and this can be said truthfully and without hesitation. Now then, it is not incumbent upon us to face the concrete with marble, or brick and terra cotta, as was done in the Ingalls Building, for reasons of momentary expediency, for as the state of art advances, the architectural forms, mouldings and what not, will be incorporated with the moulds for the structural work, and upon removing the form work, the surface of the exposed concrete, will be given the desired finish of rubbing or tooling, as the case may be. Thus we will have a truly rational architecture, in which there is no sham, no deception, a solid thing, no joints, every member incorporated with and a part of a living body; living because it is straining every particle of its substance in the performance of a great work, in its own self-preservation; a living architecture, indeed, and a rational one in every sense of the word, which will rise far above criticism and endure as long as the hands of man shall not be raised to its destruction.

A. O. Elsner.



METAL WREATH.

Executed by the Gorham Manufacturing Co.

THE PRESENT SYSTEM OF ARCHITECTS' CHARGES.



N the course of the remarkable expansion which has placed the United States in its present commanding position, its building industry, as a natural consequence, has undergone radical changes.

In spite of this fact the general methods of designing and executing work, so far as it devolves

upon the architect, remain to a great extent as before, and it would therefore seem reasonable to assume that the present custom of employing consulting architects as confidential agents of owners, and the present manner of letting work to builders may be considered as having stood every test and as likely to be adhered to in general features for an indefinite period to come.

Experience has taught, however, that as between the architect and the builder, the work is not in all respects divided in an entirely logical and reasonable manner, in that certain parts of the detail drawings and outlays (shop outlays, setting plans, etc.) have been removed from their natural connections in the architect's office and now form part of the builder's work, because the present antiquated system of architects' charges render it impossible otherwise to provide for them.

Under modern conditions full and complete drawings and outlays and ample superintendence and testing constitute the requisites of speedy and economical building. This has been amply illustrated by past experience in the building trades themselves as well as in the work of civil and mechanical engineering, and it appears equally logical and, in fact, self-evident, that this work and the entailed responsibility should be placed upon the architect.

This can be accomplished by in some way establishing a rational system of architects' charges based on the elements of services rendered or else by leaving the question to be regulated by natural laws.

Our present system, if it deserves that name, is in reality nothing but an obsolete rule of the 18th century established for the public buildings of France as a fair average for a rather uniform class of work which, therefore, takes no account whatever of the infinite variety of modern types of buildings, conditions of employment, individual requirements, standing of practitioner, etc., and the application of which to modern work is indeed, as George Edmund Street is said to have remarked even fifty years ago, "a great absurdity."

History of the Five Per Cent. Rule.

Under the schedule established by the American Institute of Architects, the compensation for so-called full services is fixed at five per cent, on the cost. Historically, percentage rules and more particularly the 5 per cent rule originally came into being as a fair average for the public buildings of France. Previous to the end of the 18th century all architects were probably paid salaries or grants. However, with the beginning of the architectural profession in the modern sense of the word during the 18th century it seems to have become customary in France to pay the architects for public work five per cent, on the cost as a fair average for a class of architects and a class of work very nearly uniform in standing and character. This custom was enacted into law during the French Revolution, was adopted by most architectural bodies as the only precedent available and gradually spread to other countries. It was probably the best that could be done under the circumstances then prevail-But at the present day, while not underestimating the past usefulness of the five per cent, rule, the impression is undoubtedly gaining ground, that the architectural profession has entirely outgrown the necessity for it; that it is, in fact, now difficult of application, unjust in its workings and productive of conditions operating to the distinct injury of the building interests of the country at large.

It may be observed, at this juncture, that European and American conditions in the architectural profession are not at all identical, and neither are those of the building trades. The conditions of architects' employment vary considerably in the different European countries and are everywhere different from those prevailing in the United States; in England, for instance, the five per cent. rule really means seven and one-half per cent. in addition to the wages of the superintendent, two and one-half per cent. on the cost being added for quantity surveying..

In order to meet the objections to percentage schedules, amendments and classifications have been tried, in some European countries on a very elaborate scale. But the difficulties of charging so as to meet the ever-increasing complexity of conditions determining architects' employment are steadily multiplying and it is always an open question to what extent owners would accept amendments.

The very fact of the classification shows also that the five per cent, schedule cannot be applied to all classes of buildings, and that the originally fair average for public buildings in France is not fair and reasonable for all classes of buildings to-day. At the same time it is clear that the establishing of several percentage rules instead of one must be a fruitful source of trouble and contentions.

The Present Schedule in Its Application.

We referred above to the fact that the five per cent. rule originally represented an average and probably a fair average for services rendered. Such is not the case under modern conditions. Heating, plumbing, electric wiring, steel constructions and all the thousand and one improvements and appliances now to be located and studied to the great complication of plans did not exist. Each locality possessed only one or two materials of each kind, as a rule, and the present enormous market of materials and variety of constructions were yet to come. Under present conditions a greatly increased amount of drawing, supervision and other work has thus gradually been added to the architect's work. On the other hand, the changed conditions which have brought it about have also made the services of capable architects exceedingly valuable in a new direction, in that the selection of materials and methods of construction for a given purpose, necessarily leave a wide scope for exercise of judgment in the accomplishment of the greatest possible results with the least expenditure.

The architects of the United States have thus gradually come face to face with a new condition, vastly increasing their work, outlays and responsibilities and due mainly to the following conditions, namely:

- 1. The new systems of construction and complicated appliances.
- 2. The variety of materials available.
- 3. The speed of execution demanded.
- 4. The increased cost of labor—to offset which a better organization of the builders work became necessary with increased shop work and reduced field work.

At the same time the organization of a building enterprise gradually became impossible except on the basis of complete and well-studied architects' plans. While the work and responsibility of the architect were thus vastly increased, it is also true that buildings became more expensive because more complicated, and in many cases the present schedule is fairly satisfactory. But in the great majority of cases it is not so, and as between the different classes of buildings it is unfair in operation, the simple constructions and work of repetition being vastly more remunerative than complicated structures and work requiring careful study in all its parts, which is, of course, the exact reverse of what a rational schedule should accomplish. It also provides for a supervision which is in reality insufficient and therefore unworkable.

I think there can be no question that a more complete system of shop drawings would both cheapen buildings and shorten the time of construction and the architect should be put in a position to prepare these drawings absolutely complete and ready for the workmen, which is not now the case. In some cases the arrangement I here suggest has proved indispensable, for instance in the matter of steel constructions, etc., where the specifications require the contractor to include in his bid the cost of the shop drawings at a certain price per ton, the engineer to be appointed by the architect.

The Principle of Percentage Schedules.

Another series of objectionable features may be said to have their origin in the fundamental fact that the five per cent. rule, which originally was arrived at as a fair average has now been raised to the dignity of a principle. Unfortunately it is not defensible as such. It is neither an axiom nor a tenet rendered sacred by general usage.

In the course of time, in certain lines of business, like banking, real estate, etc., certain transactions have been fixed by law or custom at a certain percentage on the amount involved. But architects' services are in no sense brokerage. Other methods of regulating wages and employment are those adopted by the ancient guilds and the modern labor unions, but architects are not employed by the day. How, then, can we defend the implied denial of difference in skill, in experience, in talent and special fitness for a given task and the placing of the official stamp of the American Institute of Architects upon the proposition that, as far as it is concerned, the services of the novice are as valuable as those of the experienced and expert, those of the well educated as good as those of the less well trained, those of the successful no better than those of the unsuccessful. In spite of the fact that the schedule is marked "Minimum Schedule," this certainly bars the successful practitioner in the great majority of cases from obtaining the increased price which naturally should be his, limiting him to the one reward of doing more work with its added cares and responsibilities. This point is extremely important.

There can be no question that, even with the most efficient organization, the amount of work which one man can directly inspire and carry out is small compared to that handled by many offices to-day, and, conversely it follows that the successful architect of to-day gives his name to and assumes the responsibility for a large amount of work of which he is not the real author. There is no other road open to him. From the point of view of public policy this is certainly not a desirable condition, and in view of the fees paid other professions and the sums entrusted to successful architects of the present day, entailing corresponding responsibilities, it would seem fair to infer that the five per cent. rule is the main, if not the only obstacle to successful architects obtaining such fees for im-

portant work as would enable them to limit their work to what they can personally perform with proper assistance.

The five per cent. schedule also stamps with the Institute's approval the principle that the services and ideas of an architect are valuable in proportion to the cost of carrying them into execution. On this principle advice becomes valuable only when expensive to follow. The conflict between the original conditions and our own is here most apparent. Viewed as an average for public buildings in France it appears quite fair that a large building should earn a proportionately greater fee than a small one. Under the complex conditions of modern times the same rule becomes, in many cases, absurd, as for instance in many alterations involving a very small outlay yet compelling on the part of the architect a complete study of the entire building or plant and on the part of the owner a benefit out of all proportion to the fee sanctioned by the schedule.

A design in a cheap material earns a double fee by being executed in a material twice as expensive, and architects, under this rule, are paid for wasting their clients' money and punished in pocket for saving it. Under the present contract system the working of this rule becomes particularly vicious in the following manner, i. e., A set of plans and specifications necessarily embrace a large amount of work of many different trades. Therefore the degree of care, skill, experience and familiarity with the working processes and other conditions of all these trades, which is employed in the architects' work must needs to a large extent influence the estimates obtained and sums are easily saved or wasted in this way which far exceed the architects' commission.

Under the present schedule the exercise of such care and skill operates to reduce the architect's commission. If he manages to defeat an unjust claim or secures good terms for his clients, he is at the same time conscious that his efforts will reduce his own commissions.

Analysis of the Value of Architects' Work.

In considering the different ways in which architects' services influence the cost of buildings and their permanent value we may view these services under two heads, namely:

- 1. In their bearing on the building operation itself and preparations for the same, and
- 2. As a factor in the permanent or investment value of property. The immediate value for the prosecution of the building operation itself is apparent and should be easily understood. But few realize that the permanent or investment value of buildings de-

pends to a large extent on the architect. Yet, such is the case nevertheless. The immediate value during the building operations may be considered under several heads, namely:

- 1. In safe-guarding the interests of the owner in the letting of the work and during the construction.
- 2. In applying expert knowledge of methods of construction and materials available towards securing them for clients the greatest result for the smallest possible outlay.
- 3. In so adapting designs to the conditions which they are to serve as to secure the greatest possible efficiency, rentability, economy of management, etc.
- 4. In the quality of art work accomplished in design and execution.

In point of any one of the heads mentioned the value of a design will and must vary according to talent, skill, experience, etc., and once the public were taught to look for it it would soon register its experience in records for each architect on which his fee would to some extent depend.

It becomes apparent at first glance that several of the factors which are of immediate value will also influence the investment value of property. So will, for instance, the care exercised in obtaining conscientious work soon make itself felt in the repair bills and generally in the wearing qualities of constructions and their permanency, while the degree to which a design is adapted to its purpose will in many cases absolutely decide the investment value of the property. This is self evident in apartment houses, hotels and office buildings, but it is equally important in residences and even in factories in which latter a badly studied plan imposes a permanent tax of wasted labor, often a very serious one.

The rate of insurance has also been found to rest, to a large extent, in the architects' hands and the amounts saved and wasted are doubly serious because levied both on the cost of buildings and their contents.

In the matter of residences it is startling how quickly many socalled speculative dwellings decline in value, even in first-class neighborhoods, and it is equally surprising how well designed and well built houses satisfying all proper requirement will hold their value even under objectionable surroundings.

A thorough appreciation of the elements of architects' services and their bearing on results accomplished as well as a more satisfactory handling of working outlays would necessarily lead to a largely increased employment of experts and possibly to the establishment of specialties in the architectural profession itself.

Specialists in designing and specialists in executing work might not prove an unmixed evil. Such a division might be natural and advantageous in cases, just as undoubtedly the greater number would remain "General Practitioners."

The selection of a professional adviser is largely made on personal grounds, and it would seem reasonable that a client should have an opportunity to obtain a design of recognized authorship in connection with his accustomed architect as his physician may call in another physician for consultation in important cases.

Architectural Competitions.

The recognition of the elements of service and the establishing of records and standards which it would entail and eventually specialties as mentioned, might possibly terminate the prevailing system of architectural competitions or at least keep it within reasonable bounds. Competition there must always be as a matter of course; it cannot and should not be avoided. It is an open question, however, whether the great majority of competitions are successful or profitable from any point of view. A great many of our least successful buildings are undoubtedly results of competitions; the bulk of our best work probably not. Broadly speaking it is, perhaps, not unfair to say that the competition system as now practised has not been generally successful, while the practise of selecting architects on their records without competition seems to have produced the best results.

Without considering the great number of competitions judged by laymen or those decided by outside influence it would appear that our competitions are very liable to become contests of draughtsmanship. In the other professions competition is essentially as between records for work done, and it is perhaps true even in the architectural profession that the architects of the bulk of the best work have, as a matter of fact, been selected on that principle.

The fact that so many competitions have been contests of draughtsmanship very naturally led to the appointment of teachers as judges. Teachers, however, follow a vocation entirely separate and distinct from that of practising architects and it is perfectly natural that both their point of view and their sympathies should be different. It should also be born in mind that draughtsmanship is only a part of an architect's work, and as history has shown in several important instances not an indispensable one at that. Architects of the very highest order have sometimes been indifferent draughtsmen, while some of the most accomplished draughtsmen have executed work as bad as their draughtsmanship was good.

Arne Dehli.

Author of "Details of Byzantine Ornament" and of "The Norman Monuments of Palermo and Environs."



THE HOTEL ST. REGIS.

Fifth Avenue and Fifty-fifth Street, New York City.

Trowbridge & Livingston, Architects.

THE ST. REGIS—THE BEST TYPE OF METROPOLITAN HOTEL.

I.



HE HOTEL ST. REGIS is peculiarly worthy of notice as an architectural and building achievement, because it establishes a new and higher standard for the construction and decoration of hotels in a city that in this department of building establishes the standard for the whole country.

For the third time in the history of the Astor family one of its members has had a hotel built, which is in its way different from and better than any other hotel then existing in the country. Before the war the old Astor House on lower Broadway was the boast of the city and the wonder of foreign travelers. Much more recently the Waldorf and then the Waldorf-Astoria became the great metropolitan hotel, and the place to which the birds of passage, particularly when their plumage was gay, liked to come in flocks. And now the Hotel St. Regis, which is owned by Col. John Jacob Astor, fulfils once again the family tradition of owning and building what is assuredly destined to become the most distinctively metropolitan hotel of its day.

The Hotel St. Regis, however, is metropolitan with a difference. It does not claim distinction because of its huge size or because of the enormous dimensions of the plot on which it is built. site of the building, as originally planned, did not contain more than 12,500 square feet, and although about 7,500 more have been added in an extension now being built on 55th St., the whole plot includes less than 20,000 square feet, against about 70,000 for the Waldorf-Astoria, almost 35,000 for the new Hotel Brunswick. and 44,000 for the Fifth Ave. At the present time it is, with its eighteen stories, the highest hotel building open for business in New York City, but its height will be equalled or exceeded by the Hotel Brunswick, by the new Imperial and the Belmont. The kind of distinction at which the designers of the Hotel St. Regis aimed is indicated by the location on which it is built. of 55th St. and 5th Ave. is situated, not in the business or amusement part of the city, in order to attract the attention of a miscellaneous crowd of people who have a little money to spend. It is situated at the southern end of the most exclusive and expensive residential district, sufficiently convenient to the good shops, the theatres and the like, yet at the same time plainly withdrawn from the ordinary places of popular resort. It was not intended, consequently, to cater to the thousand and one New Yorkers and

transient visitors who want a big show for either a good deal or a very little money. It is intended for a class of people, both New Yorkers and transients, who want absolutely the best quality of hotel accommodation, and who do not mind paying for it,—who want, that is, a quiet but convenient location, rooms of fair size and finished in the best prevailing manner, the best service and cooking that New York can afford, and an atmosphere of good taste and distinction.

This idea of establishing a new standard of excellence in hotel accommodation runs through all the details and dispositions of the building. The structure, the equipment, the materials in which it is finished, the design of the decorations, and the uniform good taste of the furnishing-in all these respects the builders of the Hotel St. Regis can claim a superiority in quality—certainly over any hotel in this country, and probably over any hotel in the world. Just wherein this superiority in quality consists will come out sufficiently in the course of this article, but what I want to insist upon here is that it is the success of this attempt to establish a new standard of excellence in the arrangement, the outfit, the decorations and the appointments of the hotel which justifies my preliminary statement that the hotel will become the distinctively metropolitan hotel of its day. Anyone who understands the contemporary growth of New York must perceive that the attempt to establish new and better standards of design and decoration has been profoundly characteristic of the building movement of the past few years, and that this attempt has been more characteristic of its residential building than that of any other class. New York has become, that is, more and more the financial centre of the country, the rich man's city, and its precedence as the rich man's city has received full expression in the large number of costly and handsome residences which have recently been erected. In the Hotel St. Regis the standards of quality which have been established in these residences have been transferred to a hotel, and have even in some respects been transcended. By a happy combination of circumstances, the architects, Messrs. Trowbridge and Livingston; the owner, Col. John Jacob Astor; the lessee, Mr. R. M. Haan, and the contractors, under the general direction of Messrs. Marc Eidlitz & Son, were all united upon the same idea, and neither time, expense, care or talent were spared in order to make the achievement satisfactory. Opinions may differ as to the necessity of some of the expenditures, or the complete success of some of the details, but no one can doubt that, on the whole, the standard has been the highest attainable, and the result need not fear comparison even with such buildings as the University or Union Clubhouses.

II.

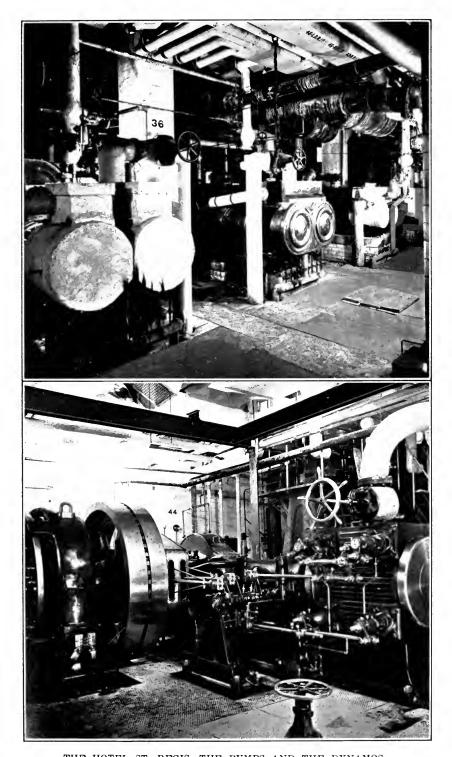
In considering the design of an important building it is extremely interesting to understand precisely what the architect was seeking to accomplish, and, so far as the Hotel St. Regis is concerned, we have the advantage of a statement of his purpose by Mr. Trowbridge himself, published last spring in the proceedings of the "Société des Architectes Diplomés." Mr. Trowbridge's explanation is intended for Frenchmen, who are not supposed to understand the inevitable conditions which confront the designer of a "sky-scraper," but it describes so well the point of view from which the intelligent American architect may approach such a problem that it will be almost as instructive to Americans. The imperative conditions of his problem, according to Mr. Trowbridge, consisted of sheer walls, without breaks or "decrochments," no base or substructure other than can be obtained by the treatment of the masonry, and the building being a hotel, a battery of small windows above, with larger openings and consequently less wall below. At the same time, this building, so different from the traditional dwelling-house, had to be given somewhat the character of a habitation; it had to awaken the associations of domestic rather than commercial architecture. this end no help was to be derived from the openings which were made simply and frankly of the size and number necessary to light properly the rooms of the hotel; but something of the character of a residential building was obtained by the treatment of the upper stories and the roof. It has been the ordinary custom to carry up the walls of high buildings to the very top, crowning the edifice after the manner of lower buildings by a heavy cornice, generally of sheet iron, with a parapet and flat roof; but this method of terminating a tall building is open to several objections. It gives the structure a harsh sky-line, and an ungraceful shape; and as to the cornice, while the use of iron in imitation of stone is unworthy of consideration, it is impossible to give a stone cornice a projection proportionate to the height of the building. Consequently a roof was considered the proper termination, both as being more pleasing and more appropriate; and to mark the crowning of the edifice in place of a cornice, a strong horizontal line was obtained by the projection of a balcony at the fifteenth floor. As to the proportion of the roof to the height of the building, it undoubtedly gives a shock to people accustomed to the corresponding proportions in lower buildings, but, as it has the propriety of being imperative, our eyes must and will accustom themselves to it in the course of time. At the lower part of the structure the effect of a base was obtained by adding a balcony at

the level of the third floor, and by courses of heavily rusticated masonry from the ground up to that level, while to give distinction and definition to the design the corners were decorated with double chenaux of flat rustication, accented at the base by "degringolades" of flowers and fruits.

It was not considered appropriate to bestow any very abundant ornamentation on the outside of such a building; which obtains its effect by its mass and surface rather than by superficial detail, but in designing such detail as it was deemed advisable to use, careful attention was paid to the fact that this building could be seen only from a considerable distance or from points near its base in the narrow streets on which it faces. It was important. therefore, first, that the silhouette of the mass, when seen from the distance, should be bold and picturesque, and that the ornament should be concentrated at a few salient points; and, secondly, that the projection of the detail should not be so great as to shut off the upper part of the building when looked at from the street below. The scale of the ornament was consequently a matter of extremely careful adjustment, so that not only it should count properly from the points of view from which it was seen, but that the soffits of all projecting members and the lines of the balconies should have their place in the general composition. same time, a good deal of freedom was used in designing the detail. Natural forms were copied with more or less accuracy, and new profiles for the mouldings were provided, together with new outlines for the balustrades, consols, keystones, and other ornament. The completed façade shows plainly the effect of this careful study. The building obtains its effect by its mass, by the emphasis of its lines at salient points, by the subordination of its detail, and by the rich, warm grey of the limestone of which it is constructed. It is as simple and monumental as an eighteen-story building should be, yet it preserves an appropriate relation to the traditions of residential architecture.

III.

A great modern American hotel is, among other things, probably the most complicated piece of mechanism which the invention and ingenuity of men have ever been called upon to devise. The only other modern mechanical contrivances which might be in the same class are a contemporary battleship and ocean-liner; and in some respects the requirements of a hotel are more numerous and various than those even of a steamship of the highest class. Both of these peculiarly modern achievements must, as Mr. Trowbridge points out, supply from its own premises and at the shortest



THE HOTEL ST. REGIS—THE PUMPS AND THE DYNAMOS.

New York City. Trowbridge & Livingston, Architects.



THE HOTEL ST. REGIS.
(Machine Room.)

New York City.

Trowbridge & Livingston, Architects.



THE HOTEL ST. REGIS. (Machine Room.)

New York City.

Trowbridge & Livingston, Architects.

possible notice every demand of modern life; but a hotel, unlike a steamer, which can be laid up when it is out of date, is, when it is eighteen stories high, a permanent structure, which must be planned not only to meet present needs, but with a view to unforeseen emergencies. Furthermore, a hotel, although it is not subjected to the wear and tear of a constant strain upon its vital parts, has to be arranged for a much more elaborate mechanism of heating, plumbing and elevator service than does an ocean steamship. The bowels and frame of such a building are in truth comparable only to the human body in the complexity and interdependence of the processes that go on within them.

In every "sky-scraper" a large amount of space must be devoted to the "power" equipment—to the boilers, engines, dynamos and pumps necessary to heat, light, and ventilate the rooms, to run the elevators; and to operate the plumbing system; but in the case of a hotel this mechanical equipment is very much more complex, and its requirements are very much more exacting. power, for instance, is needed at night than during the day-time, the plumbing equipment has to be arranged on a far more elaborate scale, as may be seen from the fact that when the house is full, an enormous hot water supply is necessary to feed the several hundred bath-tubs between 8 and 9 o'clock in the morning. Furthermore, in addition to the services above mentioned, a hotel must find place in its basements for large and convenient kitchens, for the storage of great stocks of food and wine, for ice-making and laundry machinery, for the pneumatic tube, telephone and bell services, for the servants' dining and toilet rooms, and for a number of additional mechanical contrivances, such as the water filters, the rubbish crematory, and the machine for charging water with gas. The difficulty of providing house-room for all of this necessary equipment was increased in the St. Regis by the fact that, although the building was eighteen stories high, the superficial area of its site was not much more than 12,000 square feet. In order to obtain the necessary space, the excavation had to be made exceptionally deep, and three stories were placed underground. Even then, as may be seen from the photographs, the network of pipes in the engine-room is utterly bewildering to a visitor, and would be so even to the engineer of the building were not the apparatus carefully mapped and numbered. In looking at this maze of pipes, however, its analogy to the intestinal convolutions in the human body is forcibly suggested.

The excellence of this mechanical outfit is perhaps illustrated best by the arrangements which have been made for heating the St. Regis, an account of which has already been published by Mr. Trowbridge in the paper mentioned above. The

usual method of heating all "sky-scrapers" has been that of direct radiation from coils of pipes, conveniently placed in the rooms and corridors, and connected with the boilers in the basement, which supply a constant circulation of steam at low pressure throughout the entire system. This method has the merits of being simple, economical, easy to install, and easy to handle; but it also has certain disadvantages, which tell more against its use in a hotel than in an office building. The coils are frequently noisy and always ugly; the amount of heat supplied cannot be



THE HOTEL ST. REGIS. (The Kitchen.)

New York City.

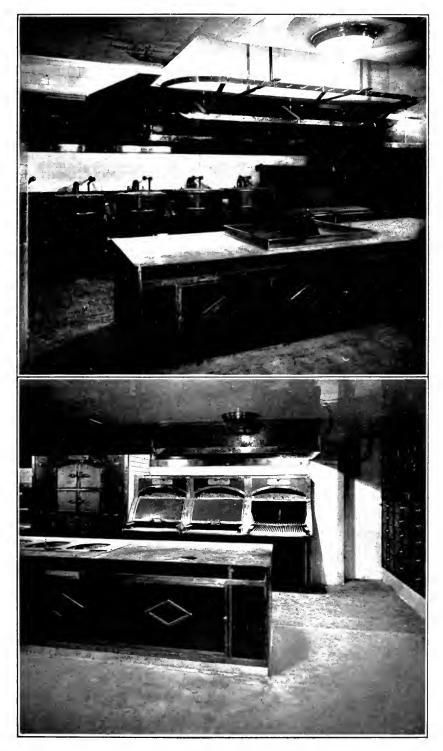
Trowbridge & Livingston, Architects.

flexibly and accurately regulated; and, what is even more serious, it does not include any provision for ventilation. The foul air generated in a steam-heated room can be exhausted only by opening a door or a window. In the Hotel St. Regis these objections were overcome by installing a system of indirect radiation combined with forced ventilation, which will give the rooms of this building a regular supply of pure, fresh air warmed to any degree which may be desired. This system has already been used in private houses, but when applied to sky-scrapers it was considered to be too costly in floor space. Such a loss was, in the present



THE HOTEL ST. REGIS-THE KITCHEN.

New York City.



THE HOTEL ST. REGIS—THE KITCHEN.

New York City.



THE HOTEL ST. REGIS. (General View of the Kitchen.)

New York City,

Trowbridge & Livingston, Architects.

instance, reduced to a minimum, because the fresh air, instead of being taken in at the basement and then conducted to all the floors, as in a private house, is drawn into the building at intervals in the height and at those parts of the floors which are of least value. Every four or five stories chambers have been provided wherein the cold air enters, is filtered, warmed by passing over steam coils, moistened, and then forced by blowers operated by electric motors through ducts to the various rooms. The space necessary for these ducts has been readily obtained by utilizing the room above the ceilings in the corridors, provided by the fact that the corridors are not necessarily as high as the rooms. An equally efficient mechanism for exhausting the foul air is obtained by gathering the chimney flues together at the top of the building, and by creating vacuums at these points by means of large exhaust fans. In order to regulate the temperature, an automatic thermostat is placed in every room, corridor and bathroom, and this regulator, after being set at the degree of warmth desired, operates by electric contrivances the dampers and valves necessary to introduce more or less warmed air.

Another comparatively novel mechanical device used in the hotel is the pneumatic sweeping apparatus. It consists of a system of pipes, having a branch in every room connected with vacuum pumps in the basement. In order to operate it, the ser-

vant, instead of sweeping the floor with a broom, and raising assiduously as much dust as she removes, merely attaches a small flexible pipe to the outlet, turns on the valve, applies the nozzle to the dusty surface, and the rubbish is sucked off to the basement. There it is discharged into large sacks, which are taken from the building with other refuse.

Another respect in which the Hotel St. Regis sets a new standard of excellence is in the care which has been taken to protect its structure and contents against fire. Of course, as an eighteenstory building, its owners were obliged to adopt the highest standard of fireproofing demanded by the Building Code of New York, including the use of metal sashes and window frames and fireproofed wood; but they have done more in this respect than they were legally required to do. Not only was an extra effort made to obtain an extremely good quality of fireproofed wood, but it was used for purposes such as picture mouldings, which are not usually considered important enough to be dignified by this care. It was even proposed to make the furniture of the same quality of material; but this idea was finally abandoned. The amount of



THE HOTEL ST. REGIS.
(The Oven.)

wood, however, used in the finish is comparatively small, other materials, such as marble, bronze and tile being very generally employed. The corridors and main stairs on every floor are lined with marble from the floor to the ceiling. The door trims in all the corridors, halls and bath-rooms are of the same material. The floors, when exposed to view, are either of marble or of tile, the only exception being several special suites of apartments on the second and third floors. The bedroom floors, where covered by carpets, are of cement. The bath-rooms, elevator shafts, service stairways, service pantries and the like are wainscoted with white tile, while the elevator doors, stair balustrades and grilles are of bronze.

Notwithstanding the elaborate precautions taken to make the building fireproof, the safeguards which have been provided against any local fire originating in any room of the house are correspondingly careful and elaborate. The fire-alarms, which are conveniently and conspicuously placed in the halls, ring up, not only the general office of the hotel, but the office of the chief engineer, and that official can deal with the emergency according to his judgment of its seriousness. If need be, he can alarm the whole house, or he can ring up a single floor, or he can isolate the disturbance. Furthermore, his staff will, at stated intervals, go through a regular fire-drill, each man having his appointed place and his definite duties. The truth is, that the chief engineer of a hotel such as the St. Regis has as important and as responsible a position as the chief engineer of a great steamship, and a correspondingly good grade of engineering ability and experience is needed. In proportion as the machinery becomes elaborate and complicated, just in that proportion does the controller of the machinery become an extremely important agent in the successful operation of The chief engineer of the St. Regis, for instance, Mr. Jurgensen, has under him a staff of 36 men, all carefully selected with a view to the duties which they are called upon to perform; and very complete arrangements have to be made for the health and comfort of these men, such, for instance, as the provision of abundant bathing facilities in the sub-basement near the machineshop.

As to the increased responsibilities which are placed upon the chief engineer through the greater elaboration of the machinery, two illustrations must suffice. In addition, of course, to the supervision of the smooth, ordinary operation and extraordinary repairs of the whole mechanical system, a method of heating and ventilating, such as that installed in the St. Regis, whereby the air is heated and moistened or dried, according to the character of the weather, obviously requires much more attention than the ordi-



THE HOTEL ST. REGIS. (Service Counters in Kitchen.)

New York City.

Trowbridge & Livingston, Architects.

nary steam radiator system, as may be inferred from the fact that on one occasion during the past winter the machinery had to be rearranged to suit different conditions seven times in forty-eight hours. Again, each room in the St. Regis will contain as a part of its equipment an electric clock. This device for the convenience of hotel guests has been tried before, but the attractiveness of the device was somewhat marred by the fact that the local clocks have not kept very good time. In the present case, however, careful arrangements have been made to regulate these time-pieces from the chief engineer's office, in which the master-clock



THE HOTEL ST. REGIS.
(Pantry Off the Banqueting Hail.)

New York City.

Trowbridge & Livingston, Architects.

is situated. Correct time will be furnished from the Western Union every day, and it will be possible by daily regulation to keep the clocks in the rooms approximately correct.

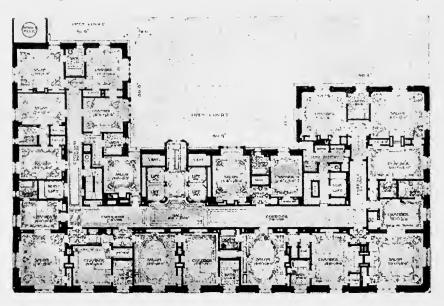
This very imperfect account of the mechanical equipment of the St. Regis must suffice. No one but an expert engineer can really understand how much ingenious planning and what a vast amount of experience is required in order to make the operation of this great machine smooth and economical, and nothing but a complete set of plans could make the details of the engineering dispositions really intelligible. These few remarks, however, assisted by the illustrations, will, however, afford some idea of the difficult prob-

lems which confront the designer of a modern hotel, and the intricate mechanism required to meet them, while it should also indicate that neither money nor effort has been spared to make the St. Regis as complete mechanically as it is in other respects.

IV.

The Plan.

In the competition which preceded the selection of Messrs. Trowbridge & Livingston, as the architects of the St. Regis, these gentlemen succeeded because of the ingenuity and flexibility



THE HOTEL ST. REGIS. (Typical Floor Plan.)

New York City.

Trowbridge & Livingston, Architects.

of the plan furnished by them. At that time it was proposed to erect an apartment house rather than a hotel, or at least an apartment hotel in which much of the rentable space was divided into comparatively large suites, and the plan of Trowbridge & Livingston was well thought out for this purpose, while at the same time allowing, if necessary, for a reduction in the size of the apartments. As a matter of fact, the apartment house idea was subsequently abandoned entirely, the private halls changed into hotel corridors, and the large suites of rooms transformed into sets of one, two or three rooms, with a bath. The plan, reproduced herewith, shows a typical floor plan of the existing hotel.

It will be noticed that this floor plan provides every room in the hotel with good air and light, and every room but three on each floor with an outside or street view. Only three rooms face upon the court, which, being 60 feet wide, affords abundant light, but which, of course, restricts the outlook. The other rooms open at present on a clear view of house-top and street. The rooms on



THE HOTEL ST. REGIS. (Typical Service Pantry.)

New York City.

Trowbridge & Livingston, Architects.

the three street corners are naturally larger than the others, measuring about 17 by 20 feet, but all of the rooms are, according to New York standards, of fair size. Bath-rooms and abundant closet room go with every suite. Each floor contains a service pantry, equipped with dumb-waiters and everything necessary to keep the food hot and savory during its service. The arrangements have all been made on the supposition that the St. Regis will appeal to a comparatively permanent set of residents, who will frequently want meals served in their rooms.

The public or semi-public rooms of the hotel comprise the fol-

lowing apartments. On the ground floor the whole 5th Ave. frontage and a part of the frontage on the street is given up to the general dining-room and restaurant. The dining-room connects directly with the palm-room (so-called), which occupies the middle part of the southern portion of the hotel, and which is lighted from above. The palm-room again leads directly to the café, which



THE HOTEL ST. REGIS.

(An Elevator Hallway and Entrance.)

New York City.

Trowbridge & Livingston, Architects.

occupies the south-east corner of the ground floor, while on the northeast corner is a comparatively small ladies' waiting or reception room. These four rooms, together with the entrance hall and the office, occupy the whole of the ground floor.

On the second floor, the Fifth Ave. frontage is given up to the banqueting hall and ball-room, while connecting with it there is a suite of apartments running along almost the entire street frontage, which will be used for reception rooms, a library and other similar purposes. At the southeast corner of the same floor there is a private dining-room suite, consisting of three rooms. The

only other suite in the house which deserves special mention is the one on the 5th Ave. frontage of the third floor. These are the state apartments, consisting of two bedrooms, a bath-room, a dining-room, sitting-room, library and reception room.

V.

The Decorations and the Finish.

The statement was made at the outset that by a happy combination of circumstances all the people who played an important part in building the Hotel St. Regis were united in the attempt to



THE HOTEL ST. REGIS. (Barber Shop.)

New York City.

Trowbridge & Livingston, Architects.

produce a thoroughly excellent result, and the fact that the result establishes a new standard of hotel design and decoration in this city should be credited to the lessee and to the contractors as well as to the owners and the architects. Mr. R. M. Haan, the proprietor of the new hotel, was fortunately of the opinion that the use of the most permanent materials in finishing a hotel was good economy. The lessee is compensated for the increased rent by being relieved of the heavy expenses ordinarily incurred for repairs and renewals. The consequence of the conscientious carrying out of this view of hotel economy in the St. Regis is that

no building has ever been erected in this country, whether hotel or residence, which presents a more substantial interior finish, and it makes no difference in this particular respect whether the room selected for the best be a servant's pantry or a banquetting hall. The finish of the latter would be more sumptuous, but it would not be any more substantial and serviceable.

This matter has been already touched upon in referring to the care which had been taken to use materials as far as possible fire-proof, but it deserves even more emphasis from the present point of view. The hall walls of every floor are lined with carefully selected marble, the floors are paved either with marble or tile,



THE HOTEL ST. REGIS. (Bath-Room, State Suite of Apartments.)

New York City.

Trowbridge & Livingston, Architects.

the servants' stairways and the pantries are finished with white tiles—in fact, practically all the service portions of the house are finished in this manner, of which a number of good examples can be seen in the illustrations to this article. The barber shop, for instance, is a very novel and interesting example of the clean and gay effect which can be obtained from the use in such a room of white tiles, panelled with colored ones. Again, the kitchen, besides being a well-arranged and spacious apartment, is finished so that the great wear and tear to which such a room is subjected will be spent upon the toughest and hardest materials. The

floor is marble, the walls are tiled, the counters are made of glass. There is nothing perishable and nothing which is hard to keep clean. The excellence of the arrangements of the kitchen can only be appreciated by those who understand the complex process necessary to cook and serve all sorts of food in almost all parts of



THE HOTEL ST. REGIS. (Hallway-Second Floor.)

New York City.

Trowbridge & Livingston, Architects.

an eighteen-story building, and the same time to check properly the different parts of this process. Here it is only necessary to state that the refrigerator storage space is abundant, the ranges are of the very best make and equipment; special places have been apportioned for every phase of the work of preparing and storing an enormous food supply, and the ventilating apparatus is particularly elaborate and complete. None of these details has been decided without full consultation with Mr. Haan's "chef" and other assistants, and it is his expectation that these arrangements will permit to conduct economically and smoothly a kitchen and restaurant which will satisfy the most exacting demands and the most fastidious taste.

The bedrooms are finished, so far as possible, just as substantially as the other apartments. The floors are of cement. The mantelpieces in the more important rooms of marble, and the woodwork almost exclusively of hard-woods. One thing which the lessee, Mr. Haan, wished particularly to avoid was the expense in-



THE HOTEL ST. REGIS. (Entrance to Stairway, First Floor.)

New York City.

Trowbridge & Livingston, Architects.

separable from the maintenance of a great deal of paint in the rooms, with the consequence that the doors, base-boards and the like in many rooms are made of white mahogany. At least one corner room on each floor has been painted a dull greyish white, but, as may be inferred from the illustrations, the amount of paint employed is probably smaller than in any building of its size in the world. The bath-rooms are tiled, and contain porcelain tubs, open plumbing and a separate thermostat, the only exception being the bath-room in the state apartment suite, which is finished throughout in marble.

These examples will give a sufficient idea of the substantial character of the finish, and it only remains to speak of this finish

from the point of view of design and effect. Since a modern hotel cannot succeed without being attractive and festive in appearance, as well as safe, comfortable and substantial, the owners, the architects, and the lessees have, of course, bestowed as much attention upon the appearance of the hotel as upon its structure, plan and equipment. Moreover, the point of view from which the problem of interior design has been approached testifies both to good taste and good sense. They have purposely avoided the besetting sin and temptation of the great majority of people who have been



THE HOTEL ST. REGIS. (Entrance.)

New York City.

ican hotels-the sin of decorative excess. course the public rooms of a hotel are necessarily showy and to a certain extent sumptuous apartments. The scale of the decorations may with perfect propriety be heightened to a point which would be offensive under other surroundings, and the designers of the St. Regis have not made the mistake, which would be bad architecture as well as bad business, of subduing the detail to the modest and reticent scale appropriate to a private residence. They have made the public rooms rich, handsome and even "stunning," but in so doing they have not piled on swollen detail and gaudy colors un-Trowbridge & Livingston, Architects. til the whole effect became confused and mon-

responsible for the decoration of modern Amer-

strous and the eye craved the simplicity of bare walls and modest projections. The detail of each room has been kept in its place by a consistently realized general design, and the whole effect, while as gay as is appropriate in rooms used by pleasure-seekers, are not only not adorned to the point of decora-



THE HOTEL ST. REGIS.
(The Office.)

Trowbridge & Livingston, Architects.

tive inebriation, but have been, for the most part, treated with comparative sobriety and good taste.

The styles used in decorating the rooms have been, as in almost all American work of this kind, borrowed from one of the several periods of classic European decoration, but there has been no very



THE HOTEL ST. REGIS.
(Corridor Leading to the Main Dining-Room.)

New York City. Trowbridge & Livingston, Architects.

scrupulous adherence to stylistic consistency. It is motives quite as much as forms which have been borrowed. An attempt has been successfully made to give life to these classic forms by nicely adapting the scale of the decorative motives to the space which they fill and to their function in the design, and this detail consequently deserves careful study. Unlike so much detail, particularly in large American buildings, it is not mechanical and lifeless; on the contrary, if it has a fault, it is sometimes too crisp and vivacious, too little subdued to its architectural setting. As a matter of fact, it has all been specially designed and carefully modeled under the incessant supervision of the architect, and credit for the result should be divided both between the designer and the many skilled

workmen, by whose co-operation the designer was enabled to carry out his ideas.

If the Hotel St. Regis shows anything, it shows the great advance which has taken place during the past ten or fifteen years in the ability of the leading contracting firms and their workmen to execute with vivacity and skill the decorative purposes of an architect. In the early years of the architectural revival in this country nothing hampered architects more than the difficulty of securing the assistance of competent artizans; but the long educational effort is now having its effect. No one can look at the admirably executed finish of the St. Regis without realizing that the architects have been skilfully and loyally assisted by the contractors and the expert artizans in their employ. The value of this assistance is shown in pretty much every division of the work; but particular attention should be directed to the modeling of the plaster, stone and metallic detail, to the very workmanlike setting and finish of the marble, both on the walls, floors and chimneypieces, to the care with which the wood-work has been installed and stained, to the great beauty of the woods chosen, and to the general excellence of the electric fixtures, whether in the main dining-room or the smallest bedroom. On no job in this country has better workmanship been shown and a higher standard of execution been laid down, and we doubt whether this standard will be matched for a year and several days.

The main entrance and the general office have been treated with a sobriety which is very unusual in buildings of this class. There are two swing-doors, one on each side of the office, and each is housed in a handsome bronze canopy. One of these entrances is opposite the door leading into the palm-room, and the other opposite the door leading into the café. It has been the evident intention of the architect to keep this general office businesslike and simple, as well as handsome. The floor is of Irish marble, laid in an elaborate pattern; but it will, of course, be covered with rugs. There is a dado of light brown shaded marble, which stops about three feet from the floor, and above the walls are finished in Caen stone, which, because of its warm and pleasant surface, is one of the few stones, except marble, which can be used for interior finish. The pillars are decorated with bunches of flowers tied together by a ribbon, but the detail, while vigorously modeled, stands out rather too much from the flat surface on which it is carved. Bronze capitals decorate the heads of the column, and the room is lighted chiefly by skylights, filled with dull and well-patterned stained glass.

The entrance to the general dining-room on the Fifth Ave. frontage is on the right, and the hallway is finished in rich-veined

Trowbridge & Livingston, Architects.





(The Palm-Room, from the Musicians' Gallery.) THE HOTEL ST. REGIS.



THE HOTEL ST. REGIS. (Detail-Main Dining-Room.)

Trowbridge & Livingston, Architects.



THE HOTEL ST. REGIS. (Detail—Main Dining-Room.)



THE HOTEL ST. REGIS. (The Palm-Room.)

white marble, thus constituting a gradual introduction to the greater splendor of the restaurant itself. This room is quite the most sumptuous apartment in the building, but the splendor of the effect is obtained more by the use of rich and striking materials than by mere superfluity of detail. The walls are lined with the same grained marble as the hall, but they are broken so much with windows on the one side and doors on the other that the uprights are treated as pilasters and supports. The south wall carries a large mirror. The ceiling is domed, wrought into an elaborate pattern and gilded. The gilding, which has been lavishly employed, both



THE HOTEL ST. REGIS. (The Café.)

New York City.

Trowbridge & Livingston, Architects.

in this and in other rooms, has been done with skill and discretion by Mr. James Wall Finn, and its use with the marble has served to make the room splendid without any touch of vulgarity. The sheen of the gold has been made sober and deep, yet it has not been made dull and colorless. On the contrary, it has the effect of burnished metal; it still glows, but with a fire that burns slow and long.

Every large contemporary restaurant must have a room, which it is customary to call the palm-room, and which differs from the



THE HOTEL ST. REGIS.
(A Private Dining-Room.)

Trowbridge & Livingston, Architects.

main restaurant in that smoking is permitted during all hours and in all company. The main dining-room of the St. Regis gives directly upon such a room, which occupies the floor of the court of the hotel, and consequently is lighted from above by stained glass, similar to that in the main hall. The walls are finished with low dado of Istrian marble, and above mirrors on one side and Caen stone on the other. The room derives its character, however, chiefly from the decorations, painted by Mr. Robert Van Vorst Sewell, and distributed around the room in the tympana of the arches. These decorations tell the story of the troubles of Psyche,



THE HOTEL ST. REGIS. (Detail of the Banqueting Hall.)



THE HOTEL ST. REGIS.



THE HOTEL ST. REGIS.



THE HOTEL ST. REGIS.
(Mantelpiece in Reception Room.)



THE HOTEL ST. REGIS. (The Library.)



THE HOTEL ST. REGIS. (Small Reception Room.)

Trowbridge & Livingston, Architects.



THE HOTEL ST. REGIS. (Library of the State Suite.)

Trowbridge & Livingston, Architects.

and are excellently toned to harmonize with the color scheme of the room. It is the one palm-room (so-called) in the city, in which an intelligent attempt has been made to reach a general effect, and this effect owing to the more strictly architectural character of the decorative devices possesses dignity as well as gayety.

The café, adjoining the "Psyche" room, is a high, somewhat dark apartment, paneled deep to the ceiling in quartered oak. The wood is extraordinarily fine and rich in quality, and the room is correspondingly handsome. It is a much higher room than the cafés of the important restaurants of New York, and arouses associations of paneled dining-rooms in some of the great residences

of Europe. Like the "Psyche" room, its dominant effect is subdued and dignified rather than festive.

Probably, however, the greatest success reached by Trowbridge & Livingston in their interior designs is the banqueting hall, on the 5th Ave. frontage of the second floor. This room is something more than festive and splendid. It is extremely simple, yet at the same time "stunning"; it is both very gay and highly distinguished.



THE HOTEL ST. REGIS. (Small Reception Room.)

New York City.

Trowbridge & Livingston, Architects.

Like the restaurant below, the walls are paneled in marble, the panels being framed by pilasters with bronze capitals; but the whole effect is much simplified by the dull white and consequently flat appearing marble which has been used. This material has all the value of marble, in that it is rich, highly polished, and struc-

tural; but it takes its place more modestly on the wall than do other varieties of marble, and in this respect has something of the value of wood. In fact, the service doors of this room, which are wood painted white, harmonize perfectly with the marble on the wall. The wall spaces not occupied by windows, doors and the marble pilasters are thrown into large marble panels, which will be hung with tapestries. The fabrics used for the hangings will be copied



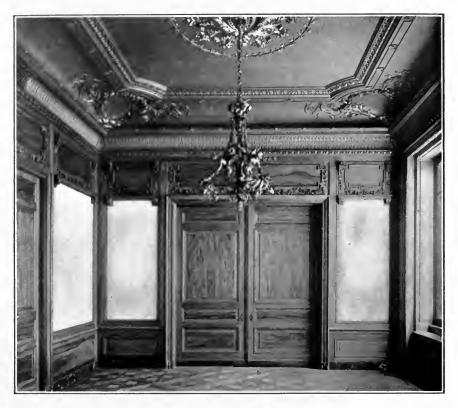
THE HOTEL ST. REGIS. (A Corner Sitting-Room.)

New York City.

Trowbridge & Livingston, Architects.

from rich yellow and white Venetian velvet, and the total effect, when the chandeliers are lighted and the prevailing whiteness is relieved by the fabrics on the walls, will be not only brilliant and "stunning," but really beautiful.

The frontage on 55th St. of the second floor leading off from the banqueting hall is occupied by a series of reception and sitting rooms, which will be used either in connection with entertainments given in the banqueting hall or individually, as occasion serves. The room of this series, nearest the frontage on 5th Ave., is a very handsome and original apartment, paneled to the ceiling in Circassian walnut, and with the frames of the panels

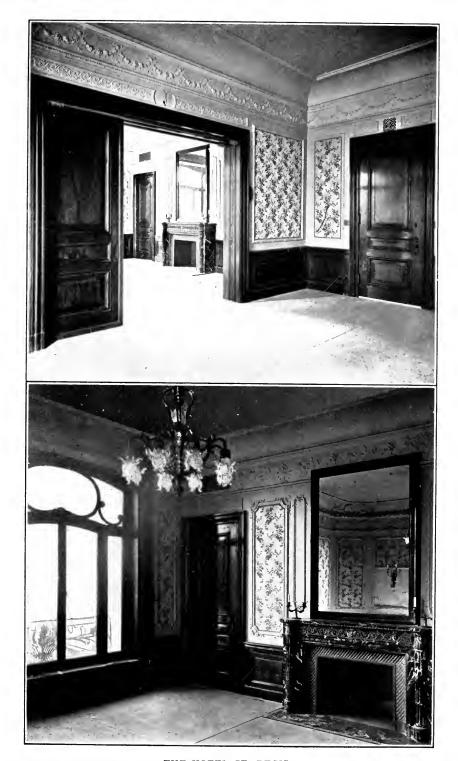


THE HOTEL ST. REGIS. (Small Reception Room.)

New York City.

Trowbridge & Livingston, Architects.

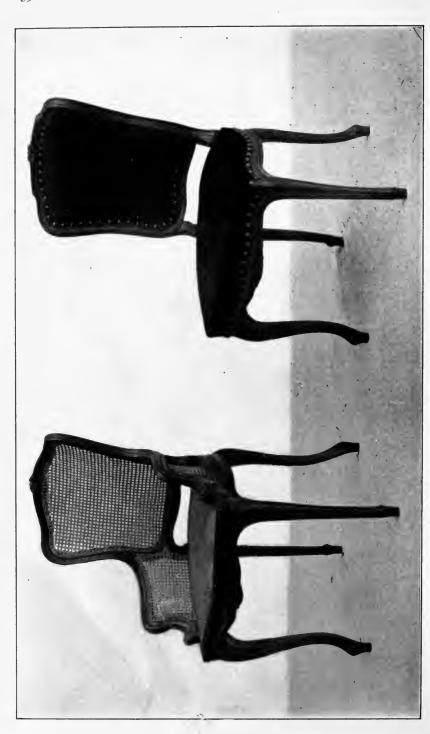
worked into patterns and skilfully gilded. It is scarcely worth while, however, to describe these rooms separately, for the illustrations that go herewith give a very much better idea of them than could be obtained from a detached description. It is sufficient to point out that these rooms have been designed, not as a suite, for the purpose of obtaining some unity of effect, but rather individually with a view as to some special purpose which each of them might be called upon to serve. Another very handsome suite of rooms on this floor is the several corner rooms, which can be



THE HOTEL ST. REGIS.

(Bed-Room and Sitting-Room of Corner Suite.)

Trowbridge & Livingston, Architects.



THE HOTEL ST. REGIS. (Typical Chair.)

used either individually or together as private dining-rooms. One of these apartments is finished in Circassian walnut, with a simple, but very effective, gilded ceiling, while the other two are paneled in white mahogany.

It is almost unnecessary to add that the decoration of the private sitting-rooms and bedrooms has received as careful attention as that of any other part of the house. One of these suites. particularly, occupying the frontage on Fifth Ave. of the third floor, and constituting the state apartments of the hotel, has been finished in the same expensive manner as the series of sitting and waiting rooms on the floor below. As the mantelpieces of the rooms were not in place at the time the building was photographed, it has been impossible to secure good illustrations of this extraordinary suite, which will never be appropriately occupied until Prince Henry or the like is again domiciled for a few nights in New York; but some idea of the character of the rooms may be obtained from the sample given of the wood-work in the library of the suite. The lesser sitting and sleeping rooms are none of them paneled; but what wood-work there is is well designed, particularly the mantelpieces, the panels of the doors, and the mouldings of the door frames. The walls are very frequently covered with fabrics rather than paper, and wherever paper is used its quality is of the very best. Several of the designs are somewhat florid; but I presume that the private rooms of a hotel must make an appearance which will satisfy all kinds of people. Many of the papers used in the Hotel St. Regis are, however, uncommonly good, and what with the hard-wood finish, the simple and well-shaped electric fixtures, the excellent system of heating and ventilation, and the abundant closet room, these apartments can hold their own with the best of that class in the city.

The furniture and hangings have been either specially designed or selected for the places they will occupy. The character of these designs may be gathered from some illustrations which appear elsewhere in this issue. Here it is only necessary to state that Mr. Haan, in ordering this furniture, had the same purpose in mind as the owners and the architects did in constructing and equipping it, the purpose, that is, of equaling or surpassing the standard established by the best private houses in Manhattan. He has not been content, consequently, to use any of the stock furniture and hangings. For the important public rooms he has imported tapestries, hangings, and, in many cases, individual pieces of furniture. And the materials, chairs, and the like, manufactured in this country have been copied from the best models which could be procured. Attention should be particularly directed to the excellence of the ordinary chairs in the public dining-room.

Finally, in considering the St. Regis as a whole, and the general ideal of practice which it stands for in current American architecture. I cannot do better than quote a sentence from the article of Mr. Trowbridge in the "Société des Architectes Diplomês," to which reference has already been made: "It is in all modesty we say," declares Mr. Trowbridge, addressing his French readers, "that it has become necessary to depart from the precedents which have been established for so many generations. It is not a desire for originality which actuates us, but a sincere desire to solve new and complex problems, which are the result of the conditions under which we live, and over which we have no control." It is in the spirit expressed by these words that the St. Regis has been designed. The architects have not tried to be original, which is the last thing which any artist should try to be. They have merely tried to find a satisfactory and praiseworthy solution for the architectural and decorative problem, and by which they were confronted, and in so doing they have departed from established precedents only so far as it was necessary to meet imperative conditions. What they have sought was not novelty or "individuality," but propriety of design, excellence of workmanship, and it is in the light of this standard and purpose that their work should be judged.

Arthur C. David.



THE HOTEL ST. REGIS. (Sitting-Room.)

New York City.

Trowbridge & Livingston, Architects.

A TRADE REVIEW OF THE WORK ACHIEVED IN THE HOTEL ST. REGIS.

In the general description of the Hotel St. Regis contained in this number of The Architectural Record, attention has been called to the excellent work achieved by the sub-contractors, under the general supervision of Messrs. Marc Eidlitz & Son, and the character of this work and the names of the firms that achieved it



TYPICAL CORRIDOR IN HOTEL ST. REGIS. (Marble furnished by John H. Shipway & Bro.)

are worth more specific description. The original contractor for the foundations, the steel structure and the masonry was the Thompson-Starrett Company, which completed its part of the job with all the promptitude characteristic of the work of that firm. The structural steel was manufactured by the American Bridge Company, and the paint used to coat the steel-frame in order to preserve it from corrosion was Dixon's silica graphite

paint, manufactured by the Joseph Dixon Crucible Company, of Jersey City. The handsome stone, to which the building owes so much of its architectural effect, was furnished by James Gillies & Sons, the lower stories being of granite and the upper stories of a carefully selected and warmly colored blue-gray Indiana limestone, while the works of the Sayre & Fisher Co. manufactured the brick. The system of fire-proofing used, as in the case of so many other important buildings in the city, was that of the Roebling Construction Company. A score or more of firms participated in



C & C ELECTRIC MOTOR INSTALLED IN HOTEL ST. REGIS.

the work of completing the mechanical equipment of the building; but special mention should be made of the C & C electric motors, which play an important part in running the ventilating and other apparatus of the building; the Loomis-Manning filter, which has become a necessary adjunct to the sanitary outfit of great residential buildings; the Ellis automatic ejector system, which is so frequently used for the removal of sewage and other liquid waste, when the fixtures are set below

the sewage level; the Watkins Laundry Machinery Co., of Cincinnati, which manufactured and installed the elaborate machinery necessary to wash the enormous quantities of linen used in such a hotel; and the rolling steel shutters, so desirable for fire protec-



ENTRANCE TO HOTEL ST. REGIS. (Showing the revolving door furnished by the Van Kannel Revolving Door Co.)

tion, manufactured by the Kinnear Mfg. Company, and sold in this city by the William H. Brodie Company.

Since the lessee of the hotel proposes to have the best restaurant in New York, he has naturally been very careful about his kitchen equipment. Not only are the floors of the kitchen of marble and the walls of tile, supplied and installed by William H. Jackson Co., but the firm responsible for the ovens, ranges, kettles and the rest of the cooking apparatus, Messrs. Duparquet, Huot & Moneuse, state that it is the most complete plant of the kind which they have ever installed. The counters of glass in the main kitchen and in the several serving rooms are not only the "latest thing" in modern improvements, but for cleanliness, sightliness, durability and general serviceableness, are a great advance over tables of other materials. The glass for these counters is known as the "Novus" glass, manufactured by the Penn-

American Plate Glass Co. As for the refrigerators, they are both very numerous and very well equipped; and the Jewett Refrigerator Company, which supplied them and put them in, testify to the excellence of the outfit. The plumbing fixtures, which are of the highest grade used, were supplied by the J. L. Mott Iron Works, which is a sufficient guarantee of their quality.

Since the woodwork in the Hotel St. Regis was, for the most part, to be finished rather than painted, it was of the utmost importance that the natural grain of the wood should be good, and that nothing should be done to spoil this grain in working it. Conse-



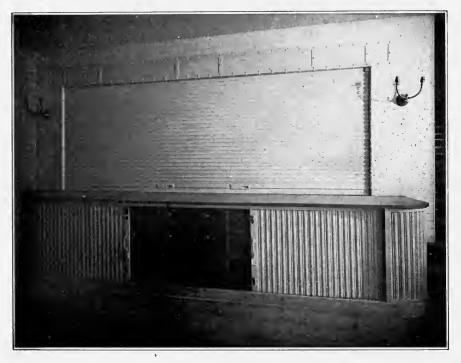
KINNEAR MFG. CO.'S VERTICAL AND HORIZONTAL STEEL-ROLLING SHUTTERS IN HOTEL ST. REGIS.

(William H. Brodle & Co., New York, Agents.)

quently, the utmost care was used in selecting the actual boards used from the stock of Messrs. I. T. Williams & Sons, who supplied the material, and every precaution was taken against the subsequent discoloration of the lumber during the process of fire-proofing. After an investigation of the various methods of fireproofing the architects and builders decided that the work would be done best by the Fireproofine Manufacturing Company. The fact that the delicate mahoganies, beautiful walnuts and oaks and other

fancy woods used in this magnificent hotel have been so well treated that it is impossible to tell that the material has been through any process at all, is one of the best evidences that the process of the Fireproofine Manufacturing Company is what they claim for it—a process that will not discolor in the slightest degree the most expensive and delicate woods. In relation to this woodwork it is also interesting to note that the standing trim on sixteen floors was furnished by W. & J. Sloane.

As will be seen from the illustrations, the Hotel St. Regis contains an unusual number of rooms, wholly or partly finished in marble. Among the apartments so finished are the main office,



KINNEAR MFG. CO.'S VERTICAL AND HORIZONTAL STEEL-ROLLING SHUTTERS IN HOTEL ST. REGIS.

(William H. Brodie & Co., New York, Agents.)

the chief dining-room, the palm-room, the banqueting hall and all the corridors. In addition, a great deal of marble flooring has been used, and some particularly handsome marble chimney-pieces in rooms otherwise finished in wood. The work of setting this marble, particularly of the elaborate arches in the main restaurant, was an exceedingly delicate and difficult job, and was accomplished by the two contractors with the greatest skill and success. One of these contractors is Messrs. Batterson & Eisele,

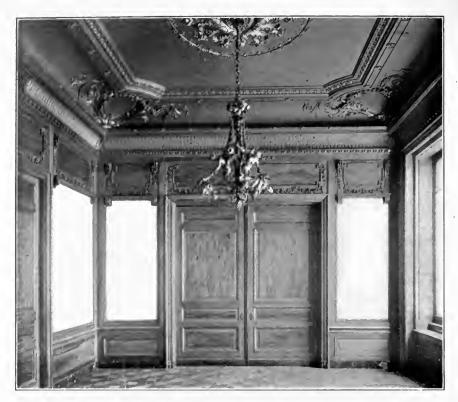
and the other John H. Shipway & Bro., and no better work of the kind has ever been achieved in this country. The large amount of ornamental metal work which the hotel contains was also divided between two companies, the Hecla Iron Works and William H. Jackson Co. Articles published elsewhere in this issue describe in detail the work accomplished by each of these contractors, and here it is only necessary to state that the Hecla Iron Works are responsible for the elaborate bronze marquise on the exterior, for the metal sashes and window frames, which have been used throughout the building, and for the handsome canopy in which the swing-doors are housed. These doors, by the way, were manufactured by the Van Kannel Revolving Door Company, and are specially adapted to hotel use. The Hecla Iron Works also executed most of the elevator grilles, the elevators being, of course, furnished by the Otis Elevator Company. The William H. Jackson Company, on the other hand, executed the ornamental metal-work in all the principal rooms, the grille on the counter in the office, the elevator enclosure on the main floor, and the mantelpieces in the private apartments. The hardware, part of which was imported and part manufactured in this country, was all of it supplied by Yale & Towne, and it is throughout specially designed and carefully executed. The lighting fixtures are also worth special consideration. They are the work of the Sterling Bronze Company, and are extremely various in character, to suit the different treatment of the rooms. Attention should be particularly called to the handsome chandeliers in some of the main rooms, to the delicate and graceful side lights in the restaurant, and to the uniformly simple and excellent fixtures in the private apartments. In the same way that part of the furniture, which was manufactured in this country, came from the shops of the Pooley Furniture Company, of Philadelphia. The models from which this furniture was designed are peculiarly appropriate to the purposes for which they are used; the wood is of the best quality, and the workmanship the finest that could be obtained. The same is true of the pianos, of which there are forty-seven instruments in the hotel, all designed by the Art department of Steinway & Sons, and manufactured by the same Another interesting piece of work is the stained glass, through which the lobby, the hall leading to the restaurant, and the palm-room obtain their light. This is the product of the office of Duryea & Potter, the well-known decorators, and contributes much to the effect of these rooms. It will be seen, consequently, that the same idea runs through every detail of the hotel, and that the various contractors have contributed their full share to the pervading high quality of the result. They were employed with that end in view, and have fully justified their selection.

A PIECE OF EXHIBITION WOODWORK.

The illustrations and the text that appear in this issue of the Architectural Record are a sufficient demonstration of the fact that the St. Regis Hotel is a remarkable building—remarkable even among a numerous class of buildings that have been tending more and more in their development of recent years toward the superlative. From a technical point of view, that is in all matters that conccrn material, workmanship and equipment, the St. Regis is almost a piece of exhibition work. In the smallest details there is clear evidence not only of the most careful and skilled workmanship, but of a most competent selection of the highest grade of materials. In some cases, indeed, the selection of material may quite properly be described as opulent. There is every evidence in every particular that choice was made from immense resources, and this characteristic contributes so much to the total effect of richness produced by the building upon the spectator that it ought not to be overlooked, for it is a contribution that may easily be missed and hidden by the more positive and tangible elements of the decorative results. One can easily imagine how much of the success achieved by the architects in the St. Regis would be quite eliminated had their efforts not been supported and augmented by a quality of effect entirely due to the large selection offered them by certain firms whose particular resources are abundant in an extraordinary degree.



RECEPTION ROOM OFF BANQUETING HALL, HOTEL ST. REGIS. (Wood Supplied by I. T. Williams & Sons.)



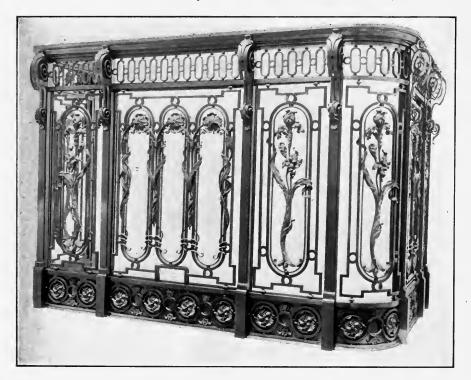
ROLLING DOORS IN SMALL RECEPTION ROOM, HOTEL ST. REGIS. (Wood Furnished by I. T. Williams & Sons.)

These remarks hold particularly true in all that concerns the woodwork of the building. This woodwork, indeed, is one of the most successful features of the structure from the point of view we are now discussing. Good woodwork no doubt is not an uncommon thing in our buildings, but fine wood is a rarity—a rarity because here is a case where "selection" constitutes almost the very essence of expense. Moreover, even selection itself, no matter how carefully performed, is a limited affair unless exercised upon a large and carefully accumulated stock, and stocks of this kind necessitate not only abundant capital but extensive connections and large experience. These are just the very facts which the appreciative eve quickly recognizes in the decorative wood used in the St. Regis. It is a splendid exhibition. No finer material has been used in any interior in New York. The English brown oak, the red mahogany, the Circassian walnut and the Prima Vera are fine even to the point of being a decoration in themselves. Much favorable comment has already been passed upon this element of the decorative scheme by architects and by other competent judges who have seen the result, and Messrs. I. T. Williams & Sons, 25th Street and 11th Avenue, who supplied the product are to be congratulated upon demonstrating in so signal a manner the premier position which they have so long held in the fine lumber trade of the United States.

BRONZE WORK AND MANTELS BY WM. H. JACKSON CO.

A large part of the artistic elegance of the interior of the Hotel St. Regis is due to the graceful effect of the decorative bronzework, made by William H. Jackson Company, of 29 East 17th St. All the work in the principal rooms has been done by this company. Some of the more prominent and noticeable pieces are shown in illustrations on this and other pages. The grille on the counter in the office (photograph below), the main stair rail (page 575), the great three-arch mirror frame in the restaurant (page 580), and the elevator enclosure on the main floor (page 571), are especially deserving of attention.

Not only the bronzework, but all the mantels and fireplaces, both wood and marble, in the apartments are the work of the Jackson



BRONZE COUNTER RAILING IN THE HOTEL ST. REGIS.

Company. The marble mantels are all copies of French patterns, some being tastefully trimmed with French gold metal work. These mantels and fireplaces have a solid, comfortable look. Their lines are simple, strong, and graceful. The gold metal work has a very handsome effect.

Art and utility have been wrought together with unusual success in the tiling which covers the floors and walls of the bath-rooms,

and the walls and ceilings of the kitchen.

In all of this work no expense of money or endeavor has been spared, the aim being to produce something representative of the highest development of this important branch of decorative art.



EXAMPLES OF FURNITURE FOR THE HOTEL ST. REGIS. (Made by the Pooley Furniture Co.)

THE ART FURNITURE FOR THE HOTEL ST. REGIS.

The furniture built for the St. Regis Hotel by the Pooley Furniture Company, of Philadelphia, is to be admired not more for its individual beauty and elegance than for the excellent taste with which it has been designed to harmonize in all its lines and colors with the architecture and finish of the rooms wherein it is piaced.

Most of the furniture is made after the fashion of the Louis XIV., XV. and XVI. periods, the material used being the very finest of selected Circassian Walnut, Satinwood, Prima Vera, Mahogany and English Oak. The accompanying photographs illustrate the designs of some of the pieces, but a black and white picture can hardly do justice to the rich deep tones in the wood and upholstery of the furniture itself. The suits cost from five hundred to five thousand dollars. The beautiful chairs which are used in the Palm Garden and illustrated on page 598 cost \$55 each and are considered the best of their kind and the most elaborate used for this purpose.

The Waldorf-Astoria and the new Manhattan Hotel contain furniture of the Pooley make, and the Bellevue-Stratford, of Philadelphia, is now being furnished by the same firm.

The address of the Pooley Furniture Company is Indiana Ave., Sixteenth and Seventeenth Sts., Philadelphia. The New York showrooms are in the Furniture Exchange, 43d St. and Lexington Ave.



EXAMPLES OF FURNITURE FOR THE HOTEL ST. REGIS. (Made by the Pooley Furniture Co.)

WHY THE FRAME OF THE ST. REGIS IS "RIGHT."



T is not often that a firm attains the very highest prominence in its line of work in so short a space of time as five years. That has been the case with the Thompson-Starrett Company. In fact, the company took its place in the first rank among builders immediately on its organization in 1899. This was because the Starrett Brothers,

who were the practical members of the company, had already behind them years of experience in building, and because as their business grew they surrounded themselves with a corps of thoroughly competent and intelligent workers.

The result of this high-classorganization shows itself in the number and quality of the building contracts the Thompson-Starrett Company has secured and executed in the less than five years of its existence. The company has built, or has now under contract, fifty large buildings, of which twenty-one are in New York City, four in Brooklyn, five in Boston, three in Pittsburgh, two in Philadelphia, eight in Princeton, N. J., one in Newark, N. J., two in Washington, D. C., two in Chicago, one in St. Louis, one in Cleveland and one in Winnipeg.

The Thompson-Starrett Company has an enviable reputation for the speed with which all their work is done. They realize the importance to the owner of a property of having his building completed without delay and the consequent loss of interest on the capital represented. With this idea in mind, and aided by their comprehensive experience in such matters, they exercise much care and forethought in the making of arrangements before starting to build. Everything is planned in advance, dates for delivering of materials fixed, and the work goes on smoothly and rapidly.

The Thompson-Starrett Company were the designing engineers, as well as the erectors, of the constructional steel frame and foundation work of the St. Regis Hotel. They were also the contractors for the foundations and masonry work.

The office of the Thompson-Starrett Company is at 51 Wall Street, New York City.



REFRIGERATORS IN THE HOTEL ST. REGIS.

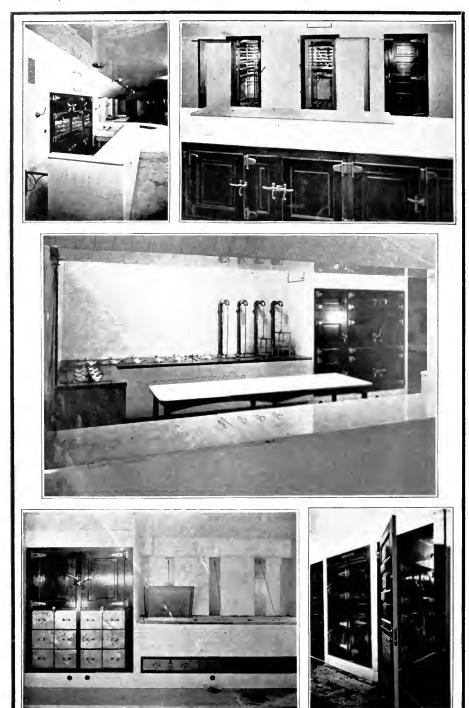
One of the most essential problems in a hotel is not only to cook and serve the food properly, but to keep it properly. If the public could see some of the Refrigerators in which their food is kept they would change their order of strawberries and cream to a softboiled egg.

There is no department in the St. Regis that has received more attention than the kitchen. If one were to dine in one of the large



SERVICE REFRIGERATORS, HOTEL ST. REGIS.
Installed by Jewett Refrigerator Co.

Refrigerators instead of in the cafe, the only possible objection would be the difference in temperature. You would be surrounded by pure white glass one inch thick, resembling the finest polished Carrara marble, the corners being finished with liquid glass, making practically a glass room all in one piece. You could use for a table one of the shelves which are made of polished aluminum; in fact, you would be in one of the most perfectly sanitary places that could possibly be made. Each department in the kitchen has refrigerators especially designed for it. The baker has a refrigerator for the storage of his stock. The pastry cook has service-refrigerators



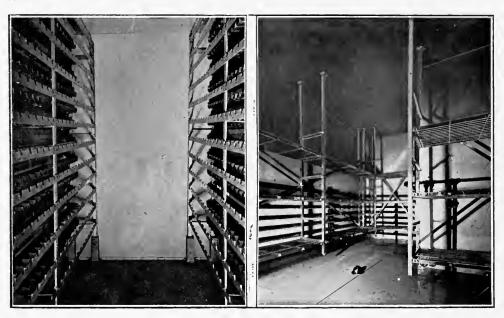
VARIOUS TYPES OF REFRIGERATORS, HOTEL ST. REGIS. Installed by Jewett Refrigerator Co.

made for the storage of fancy cakes. The ice cream is kept in German silver covered refrigerators in which are porcelain jars for the storage of some thirty different kinds of ice creams.

The garde-manger and salad departments have several refrigerators, each compartment arranged for some specific purpose.

All departments where cold dishes are served are equipped with cold plate refrigerators. The fish and sea-food have special refrigerators, the fish being stored in cracked ice in large porcelain crocks, the sea-food in drawers faced with German silver to avoid corrosion.

In all, throughout the kitchen and pantries there are fifty-two (52) refrigerators, and in each case the same care in designing and



WINE BINS IN HOTEL ST. REGIS. Installed by Jewett Refrigerator Co.

construction has been followed; and, while the first cost is considerably more, there is no doubt but what they are enduring fixtures, and the saving in the cost of replacing and repairing, to say nothing of the better facilities for handling the food, will in the end justify such an installation.

Mr. Allston Sargent, Manager of the Jewett Refrigerator Company, office in the St. James Building, New York, states that in the fifty-five years that this company have been manufacturing refrigerators they have never provided a more complete installation with the exception, perhaps, of two or three of the most expensive private houses.

THE ELLIS AUTOMATIC EJECTOR OR SEWER LIFT.

One of the most important features in connection with the Hotel St. Regis, and this applies equally to large buildings of any description, are the Ellis Automatic Ejectors or Sewer Lifts, for the removal of sewage and all liquid wastes as rapidly as created, and the absolute prevention of any kind of back flow of sewage or sewer gas from the public sewers. In the construction of the Hotel St. Regis only the best material and the most modern and complete machinery are used.

The problem of the disposal of sewage is simply solved when there is a good fall from the basement level to the public sewer by properly laid and properly trapped gravitation sewers. Where gravitation cannot be obtained, artificial means of raising and discharging the liquid waste and ground water must be employed. By means of the Ellis ejector system, a new and up-to-date device, all the liquid refuse of a building can be discharged in a simple, sanitary, and economical manner, without coming in contact with the air of the building; and making the entry of sewage or sewer gas from the public sewers an impossibility. The motive power in the Ellis ejector system is compressed air, steam, electricity, or water. It is applied in the following manner:

In a chamber built of brick or iron, either in the basement floor or outside of the building, an air-tight iron vessel, called a receiving tank, is placed at such a level that all the sewers and drains of the building can have a good fall into it. From the receiving tank a discharge pipe is laid to the point of outfall, which is generally the public sewer in the street. The sewage flows from the drains through the inlet pipe into the receiving tank, and gradually rises therein until it reaches the under side of the float. The air inside of this float, being at atmospheric pressure, causes the float to rise with the sewage, and this opens an operating valve, when the air, thus automatically admitted into the receiving tank on the surface of the sewage, drives the entire contents before it through the opening at the bottom, and through the outlet pipe into the iron sewage discharge pipe. The instant the pressure is admitted upon the surface of the sewage the Ellis Positive Check valve in the inlet pipe closes and prevents the fluid from escaping in that direction. The system can be cross connected with air, steam, or water, and arranged with by-pass valves operated by hand if desired. A booklet describing this system may be obtained by writing to The Ellis Company, of 216 West 23d Street, New York.

THE LIMESTONE WALLS.

JAMES GILLIES AND SONS' PART IN THE CONSTRUCTION OF THE ST. REGIS.

THE exterior stone work of the Hotel St. Regis measures up to the same standard of substantial elegance which obtains in every detail of the construction and equipment of the building.

This work has been done by James Gillies and Sons. The material used in the stone work of the foundation is granite. The four walls



of the hotel, from ground to top, are of blue Indiana limestone, carefully selected especially for the St. Regis.

Builders will be interested to learn that Gillies and Sons were awarded the contract a few weeks before the actual setting of the stone began. Twenty-three weeks only were taken up in the setting of the eighteen stories.

They were enabled to do this by the resources of equipment and material afforded by their

stone yards and works in Long Island City. The capacity of the Gillies works is equal to even a greater test than that made by the quick work done on the St. Regis.

The firm of James Gillies and Sons is an old one, having been founded in 1852 by the late James Gillies. The business is now being conducted by his son, John Gillies.

James Gillies and Sons have set up the walls of very many of New York's fine buildings. The St. Regis is representative of the sort of work they are accustomed to.

IN MARBLE HALLS.

In all the world there is probably not another building, covering an equal ground space, that contains such an assemblage of rich and expensive marbles obtained from foreign and domestic quarries. Five hundred thousand dollars is a close estimate of the cost of the interior marble and mosaic.

John H. Shipway & Brother were the contractors for the greater part of this work, including the marble dallage and mosaic floors throughout the building, the paneled wainscot and moulded door architraves in corridors, the moulded and carved paneled enclosures of elevators, the stair wainscot and elaborate work in the bathrooms.

A careful selection of marble was made at the various quarries. The photograph on page 601 shows a view of one of the corridors on the upper floors, but it does not convey the impression of repose and grandeur one gets by a walk down one of them. No expense has been spared to make them superb and the finest. Lined as they are from floor to ceiling with carefully chosen slabs, which in their arrangement and selection do credit to the firm of John H. Shipway & Brother and the expert inspectors acting for them at the several quarries, nothing surpasses the treatment of these corridors the world over.

Particular care has been exercised not only with regard to the more pretentious or ornate pieces, but even to the most out-of-the-way nook and the most simply utilitarian place where marble is made use of at all. This was in accord with the policy of the owners of the hotel, and with the custom of Messrs. Shipway, who "have the habit" of thoroughness in all their contracts.

All the interior sills of windows are made of Verde Antique marble, quarried on the French side of the Alps.

The Caen stone and the Istrian marble work in the Palm Court add much to the attractiveness of the place. An illustration of the Caen stone is shown on page 584. In the elevator halls and at many points throughout the building may be seen some very skilful and artistic carving.

One of the most interesting features of the marble work in the St. Regis, both on account of its beauty and style, and because it cannot be found in any other hotel in the United States, is the

pleasing effect of the dallage floors, with borders of colored imported marble worked into many artistic designs and patterns. Only experts in the execution of such floors can appreciate the care necessary to produce such results. An imperfect impression of the lobby floor may be obtained by referring to illustration on page 577.

It is no simple matter to do so conspicuous a work as this in a building where such exacting standards of art and scientific construction obtain, and have the result pass the keen inspection of the architect. The work of the Shipway firm has not only done so, it has brought forth admiring comment from those who know the difficulties attendant upon so large a task.

John H. Shipway & Brother furnished the marble work in hundreds of large buildings on Manhattan Island. Among these are many hotels. We mention a few whose reputation for style and elegance testify to the high standard of work done by them: The Manhattan Hotel, Hotel Vendome, Hoffman House, Buckingham, Marlborough, Sherry's, The Ansonia, Marie Antoinette, the Lorraine, Hotel Navarre, the Algonquin and the Imperial Hotel.

The Shipway works are at the foot of East 136th Street. Whenever a fine building is erected and the best of everything is wanted, they are in demand by architects and builders, and rightly so.



ORNAMENTAL METAL WORK IN THE HOTEL ST. REGIS.

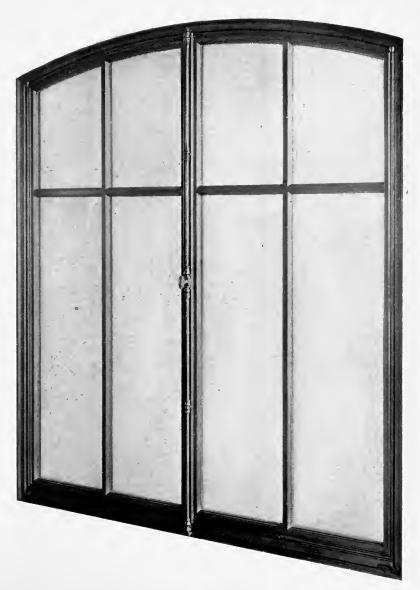
The ornamental metal-work for this hostelry is of the most elabrate character, the details embodied in it being as difficult to handle as the manufacture has ever undertaken. No matter where the eye turns, the intricate designs of the metal worker are apparent,



BRONZE-FINISHED IRON STAIR RAILING AND ELEVATOR ENCLOSURES.

Executed by the Hecia Iron Works.

whether viewing the unique elevator enclosure work, the stairrailings, which are enriched with scroll work, the treatment of the front entrances with rich bronze grilles, the ornate character of the solid bronze marquise, or the balcony railings on the exterior of





ERONZE MARQUISE, HOTEL ST. REGIS. Executed by the Hecla Iron Works.

the building. The most striking of the above mentioned features is the bronze and glass marquise, extending nearly the entire length of the 55th street side of the building. This piece of work is one of the finest, if not the finest, marquise in the world, and will bear the closest scrutiny. It is a study for the lover of the beautiful in art metal work, it being almost inconceivable how the wealth of foliage adorning the various scroll members could be produced in solid metal. It may be interesting to some of our readers to know that considerable over twenty tons of bronze alone were used in the construction of this canopy. The massive brackets alone weighing a ton each.

An important point in the construction of the elevator enclosure grilles is the use of electro-glazed glass behind the door and stationary panels.

This glass is cut in small squares and glazed electrically in light brass frames, a method of arrangement which has been proven to be a perfect barrier against fire.

Although the intense heat has the effect of "crazing" and cracking the glass, the four-inch square brass frames securely hold the glass in position, even resisting the action of water when thrown against the hot glass. The picture of an elevator enclosure shown on a preceding page is from a photograph taken before the electroglazed glass was in its place. It will serve, however, to illustrate the handsome design of the metal-work.

Another unique example of the metal worker's skill is the bronze cab stand to be seen between the two entrances on 55th street.

While not being especially ornamental, the bronze window frames and sashes throughout the structure afford a topic for special consideration, from the fact that in this building has been produced a window frame and sash which shows details in mouldings never successfully executed before, and while having all the effectiveness of solid bronze castings, are much less costly than the latter.

This saving in expense is accomplished by the use of heavy bronze mouldings drawn over dies of various forms, the resulting hollow framing being filled with a fireproof material, which not only gives more stability to the frames, but affords a core which is absolutely fireproof. It may not be generally known that the usual "kalameined" or metal-covered window frame is drawn over wood which, if the frame be exposed to a high temperature, becomes charred, and hence weakens the frame.

There are 600 of these bronze windows and sashes in the building, some of which are of quite an elaborate design, and all of which, together with the ornamental metal-work mentioned above, were executed by the Hecla Iron Works, whose offices and works are at North 11th and Berry streets, Brooklyn.

HIGH ART IN DECORATIVE MARBLE.

The marble and Caen stone work in the main portions of this beautiful hotel was done by the well-known firm of Batterson & Eisele, 431 Eleventh Avenue, under the personal supervision of Mr. Eisele, the senior member of the firm.

In the first story, the office, lobbies and adjoining corridors have a heavy Istrian marble dado, and highly ornamented pilasters of Caen stone, the latter material being used also for all the work above the dado. The Main Restaurant, fronting on Fifth Avenue, and the Ladies' Restaurant adjoining it, are finished in the most decorative manner, a combination of Rubio, Breche Violette and Pavonazzo marble, beautifully moulded and inlaid, being used. A view of the restaurant is shown in the illustration on page 580.

All the door and window openings of the large oak room, in the southeasterly corner of the building, are finished with heavily moulded Italian marble. The Banquet Room, facing Fifth Avenue, on the second story, has all the walls, from floor to cornice line, finished in pure white Vermont statuary marble, the same material being employed for the finish of all doors and windows in this room.

One of the finest pieces of marble work is in the large corridor running east and west on the second story, and including the main staircase. For this Blanco P., with Pavonazzo for the paneling, has been used. The arched doorway, illustrated on page 583, is an imposing yet graceful example of the marble-workers' art. The mantel picture on page 590, to any lover of the beautiful, is worth going far to see.

The firm of Batterson & Eisele have done the marble and mosaic work in the Waldorf-Astoria, the Holland House, the Manhattan, Savov and other hotels in New York and other cities.

The marble and mosaic decorations of a great number of public and private buildings bear testimony to the skillful workmanship of this firm. Below we mention a few of these buildings:

Equitable Life Assurance Society Building, New York.

New York Stock Exchange.

Reading Room of the Congressional Library, Washington, D. C. Prudential Insurance Company Building, Newark, N. J.

Union Trust Company, New York City.

United States Trust Company, New York City. Home Life Insurance Company, New York City.

Washington Life Insurance Company, New York City.

Corn Exchange Bank, New York City.

American Exchange Bank, New York City.

Building for Blair & Co., New York City.

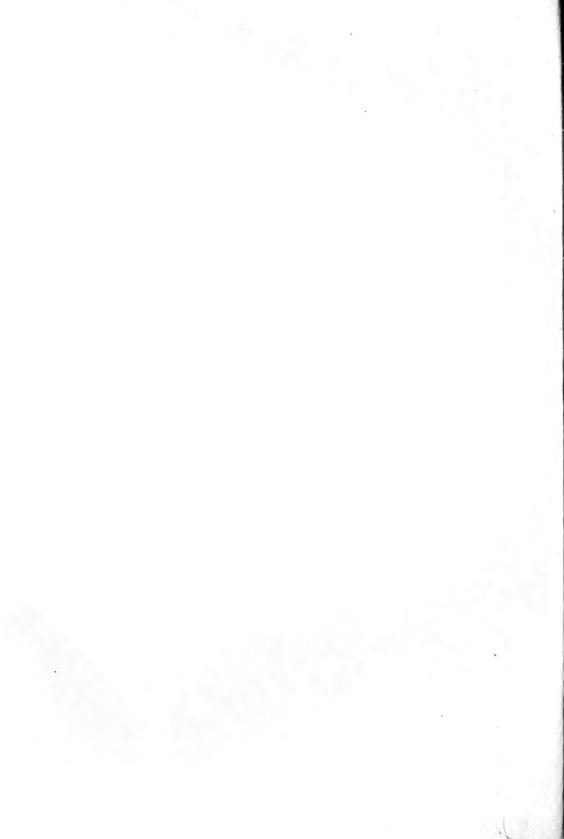
The town residences of Wm. D. Sloane, J. H. Hammond, George W. Vanderbilt, the town and Newport residences of the late Cornelius Vanderbilt, the Newport residence of E. J. Berwind, the residences of Mr. Widener and Mr. Elkins near Philadelphia, H. M. Flagler's residence, Whitehall, at Palm Beach, Fla., as well as hundreds of others.











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