



THE GREAT WALL & TEMPLE MOUNT, JERUSALEM.

From a photograph.

ENTRANCE OF PILGRIMS INTO JERUSALEM ON CHRISTMAS DAY.

The
Architectural Record.

VOL. III.

JANUARY-MARCH, 1894.

No. 3.

ARCHITECTS' HOUSES.

Part II.



BEFORE beginning even to think of a design for a house—for any building—it is important that we should go to the spot where it is to stand, look at the site—the surroundings—imbibe the atmosphere of the place. For every reason, practical as well as æsthetic, we ought to examine the site first.

Practical as well as æsthetic; from the very outset this double view of everything must be taken, nor can we conceive ourselves as ever having fulfilled either one completely if the other remains in any respect unfulfilled. In reason and in the mind of the architect these things are not separated as in the common conception, but one is part of the other, or rather both are but faces of a complete whole. Not that it is possible for every building to be beautiful, nor even pretty. There are in nature deserts and harsh crags as well as peaceful pastures and sparkling rivers. That each object should as perfectly as possible express its nature by its appearance is the best that we can do æsthetically. The houses of earlier days—I am thinking especially of the days just past, colonial and revolutionary days—these expressed the primness and dogmatic severity of our ancestors, as well as their depth of genuine heartiness and hospitality as plainly as the countenance of man expresses his passing moods.

And now, I am inclined to think, the more spontaneous and less sophisticated builders' houses of our own time express quite as clearly our relaxation of austerity in morals and manners as well as the transitional chaos of our intellectual development. However that may be, we need not attempt to put the domestic quiet of the cottage into the iron-bound walls of the factory with its ceaseless grind. Impossible, some will say, that such objects as factories can ever be thought of from an æsthetic standpoint. It may be that they are right, but inasmuch as architects are called upon to design such, it is certain that the æsthetic aim can only be to express in the appearance the inward nature of each different object, whether gay or severe, attractive or repellent. Not without æsthetic value is the black and grimy group of sugar houses, ten or fifteen stories high, that dominates the Williamsburg suburb, standing apparently upon a plain—solitary; so completely it overpowers the compact level mass of poor, two-story houses, from which it springs.

So, as I was saying, the very first step is to examine the spot where our house is to stand. If it be very uneven we ought to obtain a more or less minute topographical survey, as the variations in height and in declivity are very misleading to the eye.

The only case where this inspection might be unnecessary is upon perfectly level ground; but even then there are

distant views to be considered, slight elevations to be preferred for dryness, clumps of trees to be used as much to advantage as possible, unexpected pieces of information as to accidents of soil that may be of great value.

In hilly or rocky country it is of course all-important, this business of placing the house in just the right position, terracing out here, where the steepness of the slope makes walking inconvenient, or where the view and aspect tempt us to linger in the open air. In forming our conception of the immediate surroundings of the house, there are two extremes of landscape architecture. On one hand, there is the polished beauty of the artificial landscape of the Italian villa; on the other, the picturesque beauty of untouched nature.

The possibilities of landscape gardening are hardly known in this country, the beautiful and romantic compositions of grove and statue, of pool and bridge, of flowers and turf, which older countries exhibit. For the most part, we are fond rather of the wildness of nature, possibly because we have so much wildness of nature to be fond of. Even in the wildness of nature there is a choice and in the landscape of art there are differences in the beauty of the results. The same principles lie at the bottom, whether we have to choose a natural treatment or to construct an artificial one. Usually, we must adopt a middle course, partly adopting existing natural features, partly enhancing these by our own efforts. The fundamental principle in planting or grading, or any out-of-door operation is to treat everything as parts of a whole and not merely as separate objects. The suburban artist for the most part takes an opposite course. I will plant a weeping elm here, he says, because I think a weeping elm is very graceful; here I will put a maple and here a liquidambar so that I may have red leaves in autumn, and so on. The result is that his lawn is spotted vaguely with unrelated specimens, each surrounded by a neatly cultivated circle of earth. Somewhere among these he will place a cast-iron vase or fountain, or perchance a deer, painted to look

like a real deer, and his suburban heart will swell with pride at his achievements.

The true principle is to work for general effect. Groupings everywhere with a definite view to a general grouping. Trees in clumps, or groves or avenues, rarely in straight lines or equal spacings. Groups of groups, showing contrasts perhaps of foliage or shape or both. Shrubs always in clumps, the smaller the grounds the more imperative this is. In general stiff and formal arrangements need a very large scale to make them acceptable. A straight walk half a mile long with flat walls of clipped foliage on each side may be magnificent, where one fifty feet long would be ridiculous.

So with architectural incidents, vases, statues, pavilions, they must be good in themselves, and properly grouped with surroundings; this usually cannot be accomplished on a small scale. Therefore if we must confine ourselves to a limited space let us abjure such objects entirely; if we are fortunate enough to have ample field, let us see that our statues are of marble, stone or bronze, with background of foliage or sky; not cast-iron, with the family wash for a background.

Practical considerations in the site are of as much importance as æsthetic. Is the soil rocky, or clayey or sandy; the last much the most easily managed; the two former needing more or less care and usually giving more or less trouble. The trouble is from water that in rock or clay drains into any excavation we may make and stays there. From sand veins or other fissure in a clay soil, from minute crevices which always occur in rock the water percolates and settles around our cellar wall, gradually rising until the hydrostatic pressure is sufficient to force it through almost anything that we may put to keep it out.

It is indeed possible to build a cellar that will stand such a test and it is often done in cities, with the aid of asphalt, and flagstones and inverted brick-arch cellar bottoms, but in a moderate country house, such as we are likely to build, the cost puts it out of the question: Our only course is

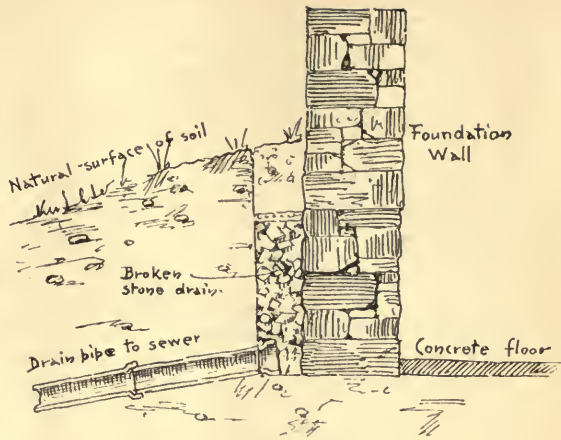
to give the water an ample outlet, so that it may more easily go somewhere else than into our cellar. In a village or town where there are sewers this is easily managed; the important thing is to secure an ample connection with the sewer with a pipe not less than five inches in internal diameter. If the soil be clay or rock we must fill in around our cellar walls with loose materials, broken stone or coarse gravel, putting a line of cheap clay drain tiles at the bottom and connecting the whole by the five-inch pipe with the sewer, which must be lower than our cellar bottom, considerably lower if possible.

As the sewer is fixed we must see that our house is set high enough to bring the cellar bottom well above the top of the sewer.

If the house is in an isolated situation a similar course must be pursued; only here we must dig our own sewer in the form of a drainage trench sloping away from the house to wherever we can find an outlet at a lower level.

There is little difficulty in doing this in rolling country, but a cellar dug in heavy soil or rock in a level country is sure to give trouble and is better if avoided entirely.

Sometimes in addition to the broken stone around the outside of the cellar

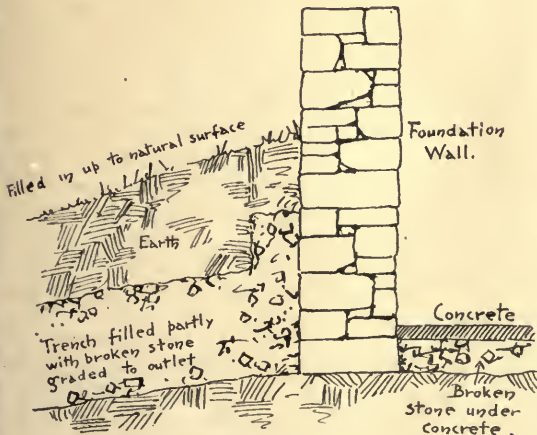


Foundation and drain-pipe.

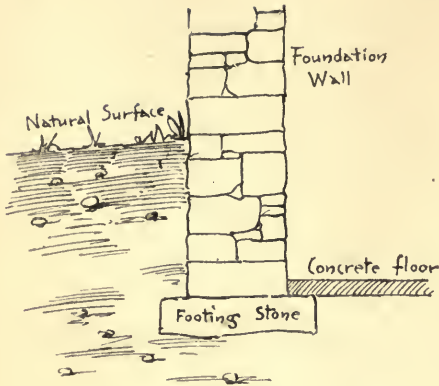
wall it is necessary to lay a bed of similar loose material under the concrete floor of the cellar, taking care to make holes through the cellar walls to give it an outlet, otherwise the last case of that house will be worse than the first.

In very sandy soils hardly any measures are needed; the water drains away so fast through the sand that it has no tendency to penetrate the walls. I have seen a perfectly dry cellar in a sandy soil with only eight-inch brick walls and no protective covering at all. Even in sandy soil it is best, however, to put a coat of coal-tar roofing cement—asphaltum it is called but it is not—taking care not to leave any uncovered spaces when it is swabbed on.

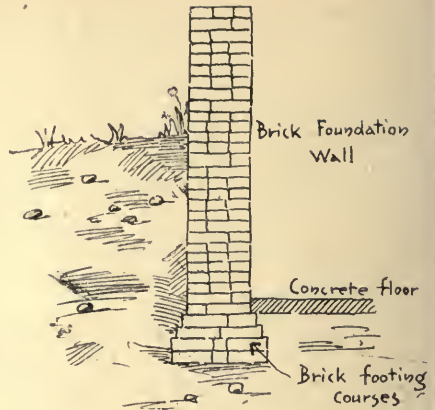
Before this, when first ground is broken, we must see whether the top soil is worth saving, and whether we shall have any use for it. If we are going to set our house well out of the ground, and deposit the earth out of the cellar around it, forming a slight artificial elevation, we shall need some soil to cover the bank of fresh earth; and if we have to cart it from a distance it will cost far more than if we can use this at hand. We will therefore have it scraped together into one place, or, at most, two, not into a dozen little heaps which are sure to be mixed with the



Draining with trench.



Stone foundation wall.



Brick foundation wall

other excavated earth and eventually lost.

When it comes to the building of the cellar walls we will have them of stone by all means, if possible, in preference to brick; stone both for appearance and for utility. In many places this is easily done, stone usually abounding if it occurs at all, and being usually available in quality for such rough work as country-house cellar walls. Even shaly rock unavailable otherwise makes a good concrete wall with proper cement. Stone even of inferior quality is less permeable to water than brick, while the appearance of a rough stone wall is most pleasing. But if stone cannot be easily got we must use brick, and we shall do well to use the hardest brick we can find. Brick are classed as hard and soft, according to their position in the clamp when they are burned. Those nearest the fire are often blackened, sometimes twisted out of shape, but always much harder than those more distant from the fire. Houses have been wholly built at times with very much blackened and distorted brick with a very picturesque effect. For cellars they are much to be preferred and for all constructional work where hardness and strength are needed.

Whether of brick or stone the wall is usually begun by what is called a footing course of large, flat stone, somewhat wider than the wall itself; or, in the case of brick walls, four or five of the first courses are laid with a

slight projection, as shown in the sketch. In heavy buildings, brick or stone buildings, this precaution is needed to distribute the weight over a wider surface of the soil; but in frame houses the weight is not great enough to need such measures, at least in the case of a twenty-inch stone wall, which is quite wide enough in itself for a firm bearing. Brick walls, however, being usually not more than twelve inches thick, sometimes as thin as eight inches, require widening at the base. In any case the footings are of advantage in keeping out rats, which will burrow downwards until they reach the projecting shelf when they relinquish their attempts, their intellects not being capable of picturing the situation further.

The cost of footings, coal-tarring, broken stone filling and such measures is increased by the necessity of digging a larger excavation than would otherwise be necessary.

So we have fairly started with our cellar wall, standing it on the ground, a thing which seems to surprise many people. Do you really stand your buildings right on the ground? I have often been asked by the uninitiated, apparently under the impression that piles or something of that sort would be the proper thing.

To return to our cellar wall which we left in an unfinished condition. We will build it, of course, with cement mortar, the advantage being that it is far less permeable to water than is

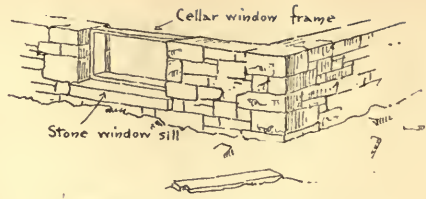
plain lime mortar. Cement, a material of modern discovery, is invaluable in construction. In former times the mortar commonly used was made of lime and sand, mixed together with water in the familiar way. Even then, however, it was well known that certain limes were to be preferred, that they set more quickly and became harder, some would even become hard under water, while ordinary lime will dissolve and disappear.

The peculiarity of these hydraulic limes, as they are called, is that they will not slack like ordinary quicklime, but have to be tediously ground to powder. Finally a limestone was discovered which, when burned and ground and mixed into mortar with sand and water, set so quickly and so hard that it was classed no longer as lime, but was called cement—the celebrated Roman cement of former days, though little used now. So great was its success at the time that attempts were made to imitate it by artificial mixtures culminating in the invention of Portland cement, so-called, not from the place of manufacture, but because it was used to imitate Portland stone. The essence of the invention was the mixing of a certain proportion of clay with ordinary limestone before it was burned, and burning clay and limestone together. Simple enough in principle, but astonishing in its results. Without cement the hydraulic engineering of to-day would be impossible, nor would eight or ten-story buildings be practicable, not to mention those of fifteen or twenty stories.

Since then various natural cement stones have been found, our Rosendale cement, the most familiar to us in New York; but in all the principal components are clay and lime in certain proportions, whether occurring as a natural product or mingled by art.

The foundation walls built, we have disposed of the mason-work for the present, for it is a frame house that we have chosen for our example.

While the cellar walls have been in progress the timber for the rest of the house has been arriving upon the ground and the carpenters have been at work preparing it.



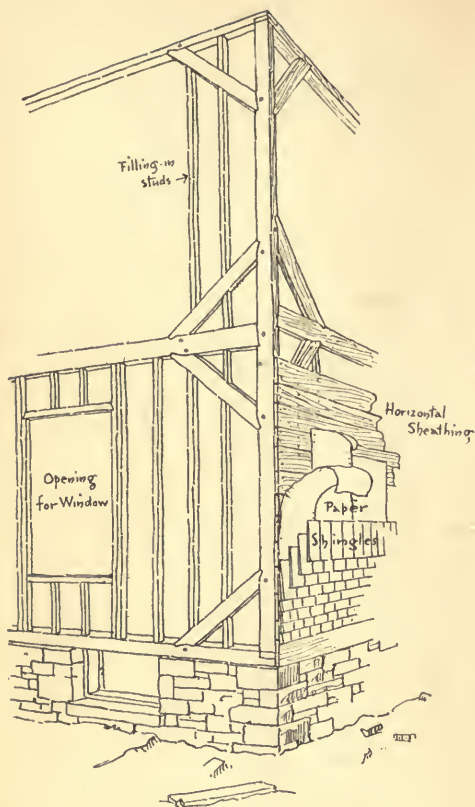
Foundation wall ready for superstructure.

The kind of timber depends upon the locality; in Georgia and Florida, the home of the Southern yellow pine, that is generally used for everything; in other Southern states, as far north as Virginia, the so-called North Carolina pine is used. Hereabouts white pine was once frequent and is, when available, a very admirable wood for the heaviest truss work or the most delicate carving; it is becoming too expensive now for general use.

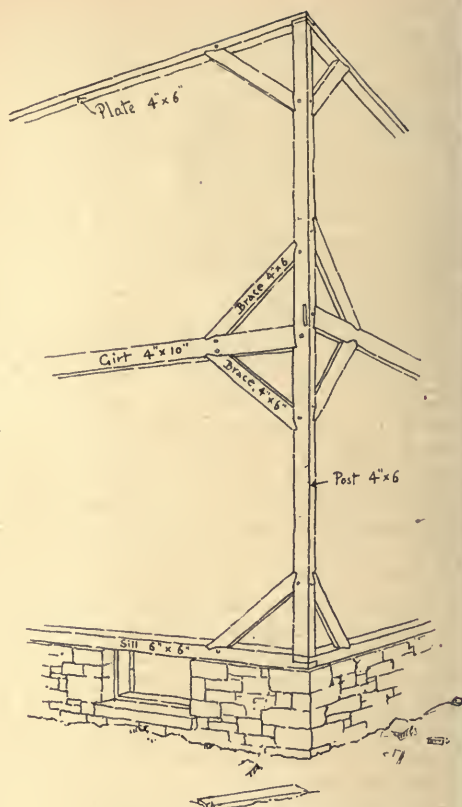
In place of it spruce is commonly used, a good enough material, its chief fault being a disposition to twist in drying. I have seen a ten by ten-inch post about ten feet long twisted so much that the top stood with its sides at angles of forty-five degrees with those of the foot, quite an eighth turn in the length. Hemlock is used in some places almost exclusively. It is good enough for ordinary house construction, although too brittle for heavy work; it has a pinkish tinge and peculiar pleasant smell, by which it is easily recognized.

On the whole we judge it best, as is frequently done, to make the posts, sills, plates and floor beams, and perhaps also the rafters of spruce, using hemlock for the filling-in studs and interior partition work—all of which is Chaldee to the beginner, but simple enough after you know, like most things.

There are two principles of house-framing in use, both of which are shown in the illustrations; the first is called braced framing, the second balloon framing. Each has its advantages. In either the starting point of the whole is the sill, a line of timbers running around the whole outline of the ground plan of the house, securely fastened together at the angles, halved together usually and usually four by six or four



Elements of braced frame construction.



Framing of braced frame construction.

by eight—*inches of course—in size.* Upon this in the braced frame stand the posts at the corners and perhaps intermediate posts will be required. These are also at least four by six, for a very large house four by eight. These posts are joined together at the top by another horizontal four by six piece, called the plate—wall plate is its name in full.

Such a construction of course could not stand, but would sway and fall at a breath were it not for the pieces set in diagonally called braces and characteristic of this method of framing. If there are intermediate floors—in our case there is one, often there are more—other horizontal timbers called girts must be placed to carry the floor beams. I suppose it ought to be both spelled and pronounced girths, but the carpenter calls them girts. The same orthoepic dilemma occurs

with the word sheathing, which the carpenter calls sheathing. I never quite know what to do; usually vary my pronunciation according to my audience, particularly when the audience is of mechanics and it is important to make myself understood, but I draw the line at cornish for cornice.

In between the posts are set smaller pieces as shown, filling-in studs, three by four or less in size, and over the whole is nailed a covering of boards, not the clapboards or other outside covering, but rough boards called sheathing boards.

The balloon frame dispenses with girts, or girths if you will, posts, plates, braces and all these paraphernalia. simply sets up a line of sticks, or studs to be properly technical, and to these the sheathing is nailed, not horizontally as before but diagonally, forming the strongest kind of bracing possible.

Then to carry the floor beams of the intermediate stories, we simply nail a strip along the inside of the studs at the proper height, a very thin strip suffices, one inch thick usually, and the studs are notched to receive it, so that it may not project beyond the plastering, and so that it may have a strong bearing.

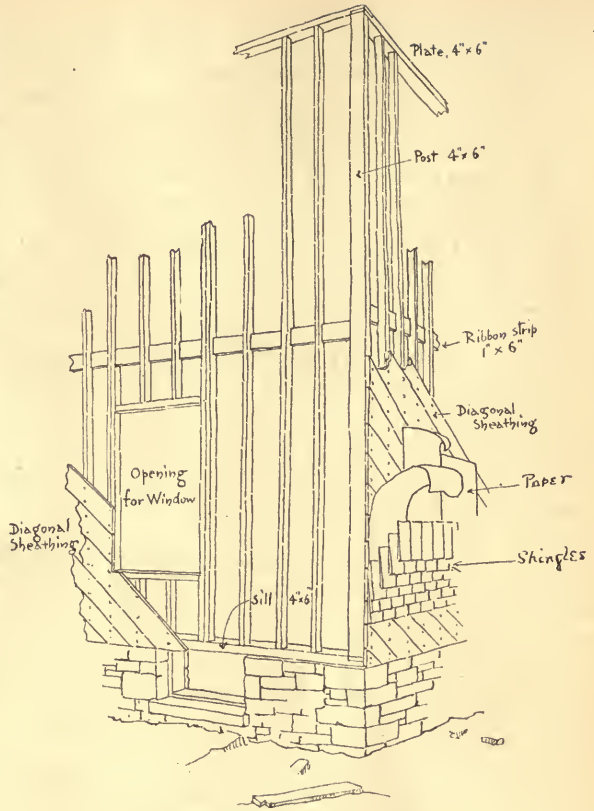
This ribbon-strip, as the carpenter calls it, is the weak point of balloon framing; not weak for carrying weight, for it is amply strong, but in case of fire it does not present the obstacle to the spread of the flames that the girt of the braced frame does.

Still, even the braced frame is so eminently combustible in its nature that I do not give this objection much weight; with proper fire stops either frame can be much improved.

We have adopted a combination of the two, using posts and girts, but placing our sheathing diagonally instead of bracing, a compromise that is often used. After the frame is completed and sheathed, the rafters of the roof set and also sheathed, and before the final exterior covering, comes the question of protection from the cold.

Boards alone are of no use. Through the cracks the winter wind howls, and a house with no other protection is little better than out-of-doors. I once lived in such a one, and with the kitchen range three feet away, on one side, and the dining-room register three feet away, on the other, the very bread used to freeze solid on cold nights.

Quite the usual thing, and a very efficacious thing, is to cover the sheathing boards with building paper, one or two thicknesses, before the shingles or clapboards are put on. Indeed the cheaper style of builders' house often has paper alone nailed to the studs, no sheathing at all, a miserable makeshift, and one of the invisible points wherein



Elements of balloon frame construction.

a well-built house excels an ill-built one. Then if we want to have still further protection we may build in between the studs with brick and mortar, or we may cut in lath and plaster upon them — back-plastering it is called, either method making a very warm house. Anything more than good paper is an unusual precaution, and not to be expected without increasing the cost of the house. There are plenty of little details into which I cannot enter here, pointing around sill and windows, beam filling with brick and many other such matters, all of which improve the quality of a house, are entirely invisible and unappreciated by the unprofessional, and unobtainable if a minimum price is insisted upon, because they all cost something. If you employ an architect don't demand the biggest house possible for your money; leave some margin for quality and you will never regret it.

As soon as the sheathing is on, the window frames are set in place. These are usually "box frames," that is, provided with a pocket or box for the weights required by the ordinary "guilotine" sash. There are various little refinements, known to the architect but not to the owner, in these constructions: The vertical pieces—called pulley styles—may be of Georgia pine, oiled instead of painted, because paint is sure to be rubbed off by the sliding sash, the parting bead may be of the same; there may be introduced a "hanging parting strip" to keep the weights from striking against each other, or all of these things may be dispensed with and the whole built of white pine painted, which is the ordinary method, and quite good enough for ordinary houses.

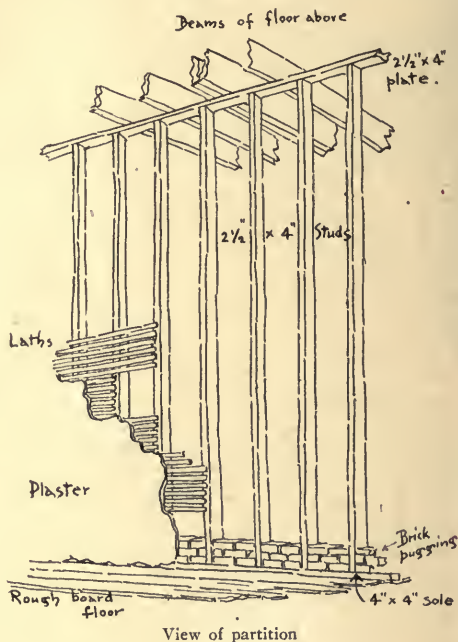
The building-paper sheathing must extend under the window frames, especially as we have determined to dispense with any other protection from the weather. We lay this over the whole exterior, roof and all, in double thickness. There are many kinds of building paper in the market and it is hard to know which to choose, as it is always covered up immediately so that its durability cannot be determined by observation. As far as I can tell from samples kept in the open air the "waxed" papers are as good as any, but they are not waxed with wax but with some petroleum product: the "parchment" papers—the genuine ones, seem to be very good and there are plenty of others.

Upon this is nailed the outside covering, in our own case of shingles all over both sides and roof. The roof shingles are sometimes, indeed usually, laid upon strips called roofing lath, set at the proper distance apart on the rafters, and such an arrangement tends to prolong the life of the shingles, by permitting them to dry easily on the under side. I prefer, however, to put solid board sheathing and paper under the roof shingles as well as those on the side, because it makes the house warmer in winter and cooler in summer. Moreover, if cypress shingles are used, decay is not to be apprehended.

In connection with the shingling of

the exterior the outside finish and gutters are put on.

As soon as the outside framing is done, and while the operations so far described have been in progress the framing of the floors has been done and the partitions set upon the rough under floors.



The floors are supported by beams usually of spruce, sometimes of hemlock; if of the latter, which is a weaker material, they must be a little stouter. Three by eight or three by ten are frequently used; but, although floor beams are mostly sawed three inches thick, two inches is quite enough for ordinary houses, and two by ten is stronger and more economical than three by eight. For spans up to twelve feet two by eight does very well even if of hemlock; beyond that, up to sixteen feet span, two by ten will serve our purpose; from sixteen to twenty feet use two by twelve, and beyond that three by fourteen—two by fourteen would be amply strong, but a beam of so great depth without more thickness is apt to wobble sidewise. Indeed, all beams are liable to twist and bend sidewise, and partly to prevent this twisting and bending it is usual to put in what is

called cross-bridging, short pieces set in diagonally forming a series of X's. These also stiffen the beams very much; not that they add to the strength really, but they prevent one beam bending independently; compel the adjoining beams to receive a part of the weight that may be placed upon any one beam. This cross-bridging is one of the few devices that add very much to the quality of a building and do not add to the cost appreciably, so we need not spare, but may put lines of cross-bridging about six feet apart everywhere. The framing of the floor beams is made necessary where openings for any purpose are required in the floors, as for stairways, registers, and for chimney stacks to pass through. Naturally the cross beam on which the others rest, called the "header," must be proportionately stronger; and so must the beams upon which the header rests. These are called "trimmers" and, with the headers, are usually four inches thick or more, according to the size of the opening and weight to be carried.

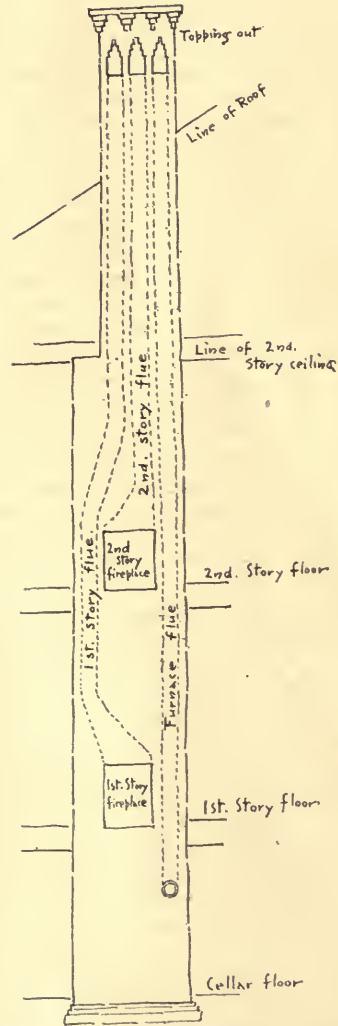
As soon as the beams are in place rough floors of hemlock or other boards are laid. These should be of uniform thickness and well nailed, but knot holes, cracks and such defects, within reason, do not matter. This remains the only floor until all the rough work of the building is done: until the chimneys are built, the partitions set, the iron plumbing pipes in place and the plastering finished; then another floor of boards of better quality is laid over it; almost the last thing done in the finishing of the building.

Within the past recent years this system of double flooring has become a matter of course in and about New York; formerly, even in the best houses, single floors were the rule. Those were the days of floors carpeted all over, with carpets cut to fit each little nook.

Nothing then was needed but a white pine floor, soft, easy to drive tacks into and pull them out of: it mattered not if there were widish cracks between the boards, nor if the boards themselves were somewhat dis-

figured with mortar and boot-heel marks—it would all be covered up.

But now we must have floors bare, or capable of being bared, if Comstock will pardon the expression. So it has come about that we now lay a rough floor first, upon which stand the partitions, and upon which all of the plastering and rough work is done; then, after all else is finished, a grooved and tongued floor, of narrow boards, the narrower the better and the more expensive, and between this and the rough floor, by



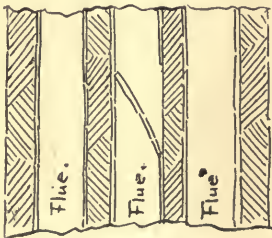
Arrangement of flues.

preference, a layer of soft deafening paper, quite a different thing from the hard sheathing paper.

Before this, however, just after the rough floor is laid and the partitions set, comes the work of plastering. And before plastering begins is a multitude of matters to be attended to. Most important among these is the building of the chimneys. These should be of good hard brick like the foundation. Soft brick are often used for chimneys by the poorer sort of builders, but are very dangerous, as after a while the soft brick disintegrate and fall to dust. I have seen a hole a foot square in an old chimney. Then comes a mysterious conflagration and stories of a defective flue. Yet I have heard a builder assure an owner that the soft brick would soon become hard under the influence of the warmth from the fireplace!

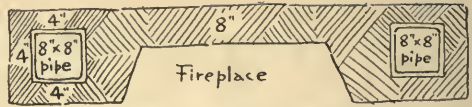
Next in importance to the quality of the brick is the smoothness of the inside of the flues. This is obtained by removing with the trowel from the inside joints the mortar that squeezes out as each brick is laid—struck joints, it is called. Sometimes, and in some localities, the flue is plastered with mortar on the inside; the defect of this method is that after a while pieces of the plastering are apt to become loose and, falling over diagonally, may block the flue completely.

The very best thing is to build in vitrified clay pipes, either round or

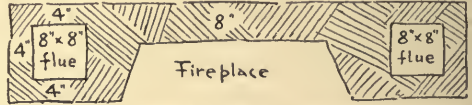


Interior of flues.

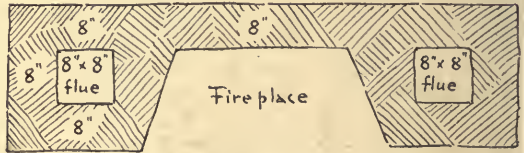
square work very well, all the way to the top. Such were unheard of formerly, but now are frequent. They will cost about ten dollars a flue and



Plan of fireplace, with pipe linings to flues



Plan of fire-place, with 4-inch walls to flues.



Plan of fireplace, with 8-inch walls to flues.

may be included at least for the furnace flue and perhaps also for the range flue in the smallest houses. For ordinary fireplaces pipe linings may be dispensed with where cost is of prime importance, as the heat from such open fires is rarely great enough to be dangerous. Nor is it usually essential to build the walls of these flues more than the regulation four inches. Undoubtedly there is a chance that a spark may penetrate an open joint, but with reasonably good workmanship such a chance is remote. Moreover, if we must be full-cautious, it is cheaper and more efficacious to build in our clay pipes in all the flues, rather than to double the quantity of brick.

It is highly advisable, however, that the framers should frame proper openings for both chimneys and hearths and should not by any chance stick a beam squarely into a flue, as I have seen them do in defiance of drawings and orders.

Before the plastering can begin the partitions must be put in place. Ordinary partitions are nothing but a row of perpendicular "studs," three by four

or more frequently two by four inches in size, upon both sides of which laths are nailed and the plastering upon each side completes it. Often, even in good houses, these studs stand directly upon the rough floor, but it is better to let them stand upon a stud laid horizontally; there is a partition head of a similar stud at the top and the vertical studs are simply nailed top and bottom.

Some kind of filling-in for partitions is much to be desired but none is usual. The open spaces are very objectionable, both in the outside walls and in the inside partitions; they transmit sound, are the usual cause of destructive fires, and make a delightful retreat for rats and mice. The only available remedy that I know of would be to fill in solid between the studs with mineral wool; although the weight would often be an objection and the cost, used so lavishly, might forbid. Some kind of very light porous blocks, made just to fit between the studs and plastered upon direct might be devised, but is not used; perhaps, too, such a filling might induce dry-rot in the studs. The most available alleviation is a filling-in of bricks and mortar between the studs, three or four courses deep; probably mineral wool to the depth of eight or ten inches would be as good.

Before the plastering begins, too, we must see that the iron waste pipes for the plumbing are in place, unless they are to be exposed outside the plaster, on the whole a better method; the gas pipes must be in and conduits for electric wiring, if we are to have anything of the kind; speaking tubes, and tubes for mechanical bells or wires for electric bells, or, better than either, pipes for pneumatic or air-bells must be put in place.

These pneumatic bells, where mechanics who understand them can be found to put them in place, are most convenient. They operate by a push-button, as does an electric bell, and transmit the impulse through a small leaden tube to the more or less distant bell. There is no bother about renewing batteries, but they work well for years without any attention whatever. The delicate lead pipes are the only point that requires care, as plasterers

and carpenters are very apt to damage these by accident; they are best put inside the partitions out of the way, but in case of necessity may be put into grooves in the rough plaster, or may be carried behind mouldings or in angles.

When the plastering begins the house is handed over for a month or more to a deluge of filthy mud.

The period of plastering is always a tedious and uninteresting hiatus in the construction of a building. Each coat—there are usually three of them—requires some days to dry before the next can be put on; altogether a month passes during which the building is an unpleasant thing to superintend.

Much of all this can be avoided by using Windsor cement, or other of the recently brought-out hard plasters; these set quickly and shorten the job of plastering to a quarter of what it else would be.

These are made now at a price that brings them as low as common plaster, so that many plasterers are willing to put on the improved plaster without increase of price.

Hard plaster requires skillful handling. Sharing some of the qualities of plaster of Paris, it sets with great rapidity, so that, contrary to the practice with lime and sand plaster, it must be mixed in small quantities and put on at once. Country plasterers especially, being by nature "agin" new-fangled notions, are loth to do anything otherwise than as they have been accustomed to do, and are apt to let the Windsor cement set before it is applied; then they try to "temper it up" with more water and of course fail to make a satisfactory job. When a plasterer can be found who understands it and is willing to use it this invention of hard plaster is one of the most important of recent improvements in the building art.

In Western cities, where local prejudice against new methods is not so strong, I have seen beautiful plastering and much cheaper than usual. It was done with a single coat of brown mortar, troweled to a smooth surface and with no finishing coat, nothing but a coat of distemper color, commonly

called calcimine, the walls in one tint, the ceiling in another. I have tried more than once to have such work done here and have uniformly failed, because nothing would induce the plasterers to regard the first coat as other than a rough coat, or to bring it to the necessary smoothness of finish.

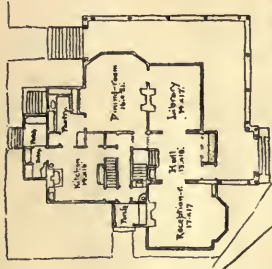
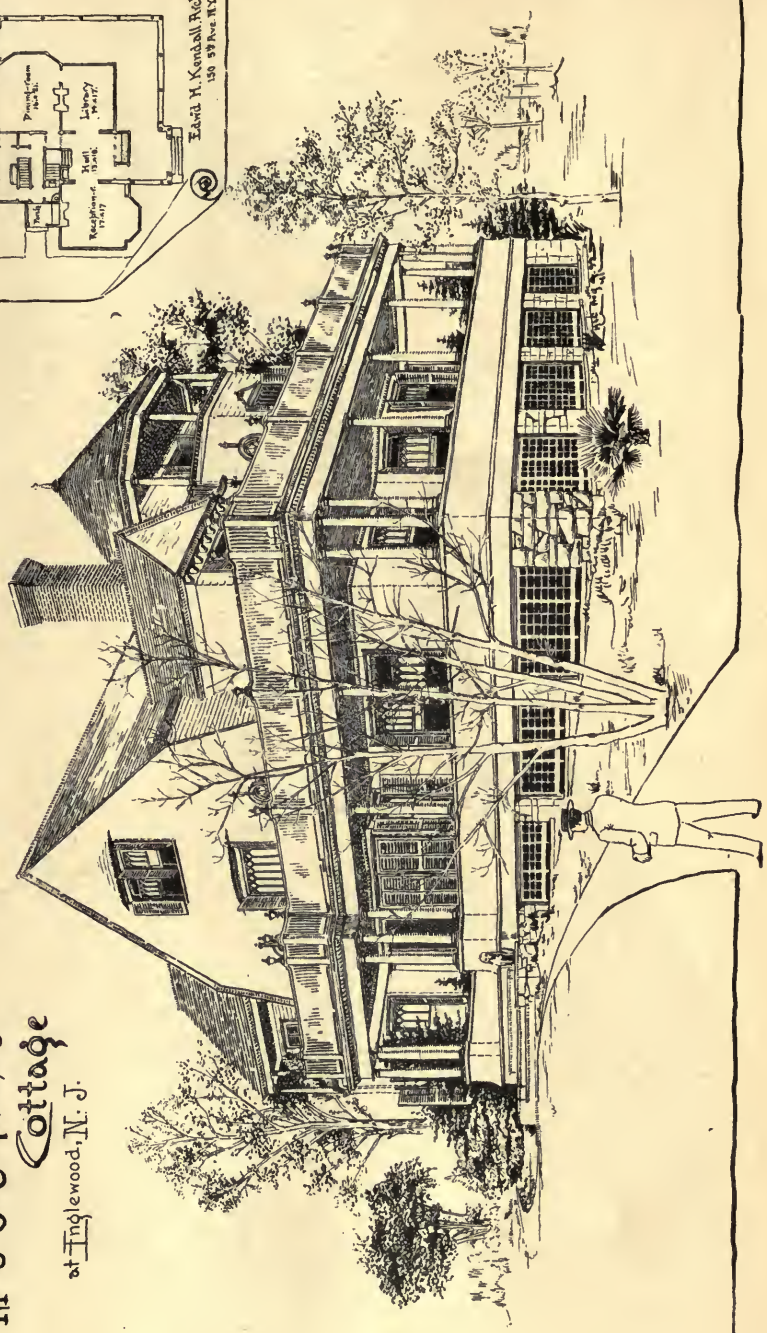
If richness of ornament can be

afforded hardly anything gives us a better opportunity than the plastering, although the heavily-moulded cornices and stock pattern centerpieces of the past have been discarded, delicate renaissance friezes, or even elaborately sculptured figure groups, if placed well before the fracture line, may be admirably done in plaster.

John Beverley Robinson.



Mr. J. O. Clephane's
Cottage
at Inglewood, N. J.

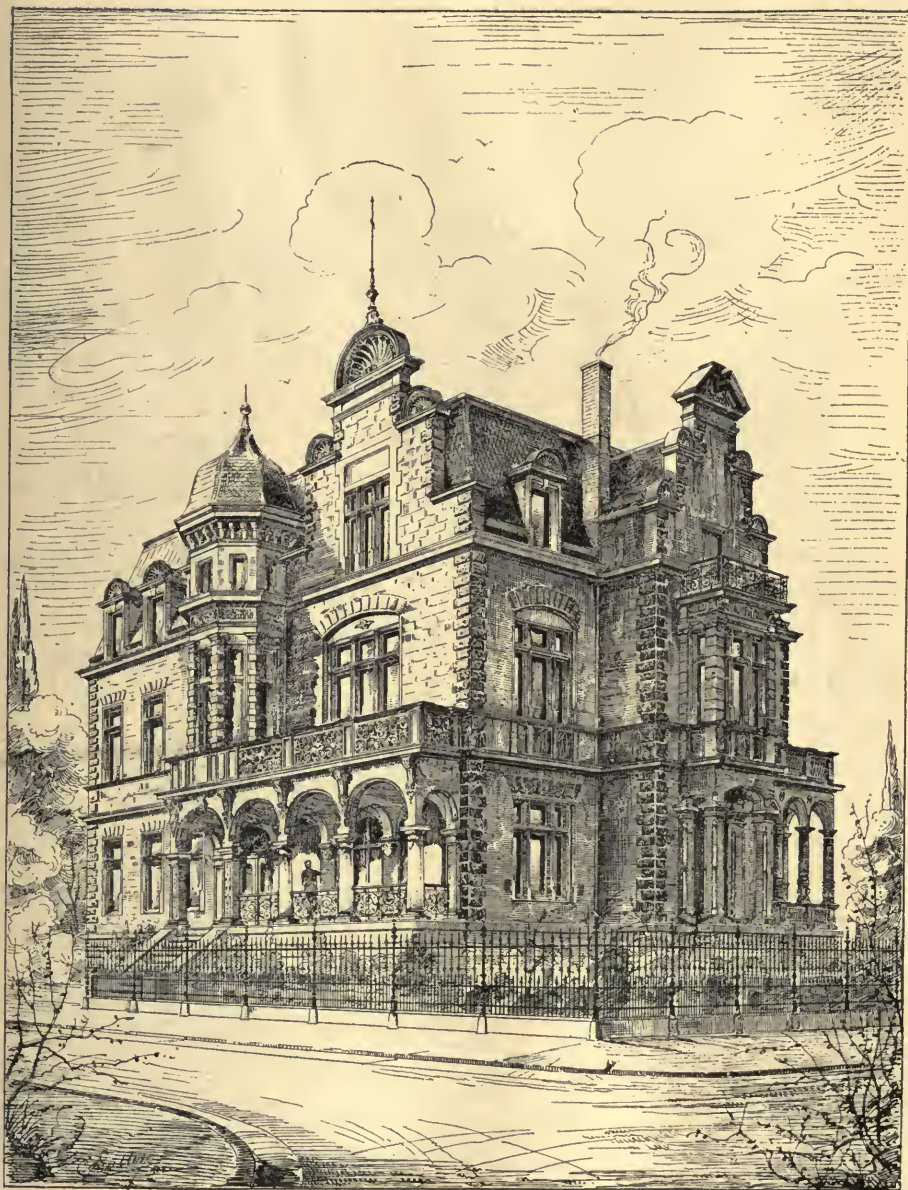


East M. Kendall Right.
150 59 Ave. N.Y.



COUNTRY RESIDENCE.

James Brown Lord, Architect.



Carlsruhe, Germany.

VILLA.

G. Ziegler, Architect.



ENGLISH VILLA.

Lord Alfred Waterhouse, Architect.



HILL HOMESTEAD AT RIVEREDGE.

COLONIAL BUILDING IN NEW JERSEY.



LI. nations have their beginnings in architecture. Even the United States, a nation that in almost all its material resources has sprung from the wilderness during the lifetime of persons now living, must confess to a probationary period in the building art; and it cannot be claimed that we have even yet escaped to conditions of very complete independence. He will need to be an exceedingly young man, and a man of restricted opportunities for observation, who can truly say that he has never seen an example of the American log cabin. Half of our most self-assertive statesmen have lived in just such structures, and a great many of our millionaires were cradled in log cabins, if it can be literally said that they had cradles. So nearly universal is the knowledge of the log cabin that any attempt at describing its structural features must be regarded as reminiscent rather than newly instructive.

The log cabin, it will be remembered, was constructed mainly of unhewn logs cut from the forest in suitable lengths, and dragged to the building site, usually on the edge of a clearing, by a

yoke of oxen and a log chain. There they were roughly dove-tailed at the ends with a woodman's axe, and then, either in a square or rectangular form, piled one above the other to an elevation regulated somewhat probably by the corporal proportions of the builder. A proprietor who carried his head at a cranial elevation of six feet would demand an eight-foot facade. Higher than eight feet, on any ordinary occasion, it would have been both difficult and useless to skid the material, and having reared his walls to this elevation, roofed them over with split logs, or possibly with bark stripped from the trees, carefully filled in the crevices with a natural plaster of mud, and erected his chimney, composed sometimes of stones if they were abundant but sometimes, also, of sticks, the builder thought himself in the possession of a shelter fit for the habitation of any first settler. Nevertheless, there were more ambitious examples of log building. There were houses constructed of hewn logs, and, after having been carried to an elevation of two stories and provided with roofs, the interiors were sub-divided by partitions and made suitable for the use of large families. The rooms, too, lathed and



THE GAZETTE & SUN, N. Y. PHOTO STY.

ENTRANCE TO THE FIRST DUTCH REFORM CHURCH.



THE CHURCH OF THE FIRST DUTCH REFORM CHURCH

Built 1682.

THE FIRST DUTCH REFORM CHURCH.

plastered, were decorated with mantels and more or less elaborate window and door casings. As to the exteriors, they were clapboarded, and, when provided with cornices, porches or verandas, they exposed as few of the features of the log cabin as any town or suburban dwelling constructed of wood. But these examples only illustrated a developing civilization. They indicated a step in the evolution of architecture in America. But they were chiefly valuable in illustrating psychological phenomena. They demonstrated the difficulty men have in escaping from even the log cabin without following the regular channels of evolution. They had little structural significance, however, and are hardly to be classed among our beginnings. The proprietors of such structures would have been affronted had they been suspected of living in log houses.

The true beginning of American architecture was the one room and one-story log cabin, sometimes containing a garret under a peaked roof, reached by a ladder, but often, also, not contributing even this much to domestic convenience. Simple curtains of some coarse fabric, or home-made blankets, sub-divided the interiors into sleeping quarters, and the walls or supporting posts, when hung with dried corn or dried fruit festooned on strings, were sufficiently well decorated for the tastes of the occupants. Such were the dwellings of our forefathers, and, as hinted but now, such were the dwellings to which much of the infancy of the living generation was no stranger. Indeed, the much traveled man of even the current period cannot look upon the log cabin as an antiquity. He will recall too many examples that he has seen among mountain fastnesses and on the confines of civilization to permit him to regard the apparition of such dwellings when conjured up as anything in the least suggestive of a resurrection. Since its first settlement this country has been able to furnish an example of civilization and barbarism marching hand in hand, of a civilization of the highest order, and of a barbarism about equally pronounced. Recent political events, too, are rais-

ing a question as to which of the two companions can show the quickest paces and the longest endurance. But this is not a peculiarity of the United States. The match between civilization and barbarism has been made in all countries, and we are distinguished above other nations only in having given the barbarian the fairest opportunities for the development of his indiosyncrasies, and the best chance to win. In some other countries the barbarian builders are strangled; but in this country they are often promoted along with the barbarian statesmen.

To reverse the sacred dictum, then, which reads, "as it was in the beginning so it is now and ever will be," and to make it read, "as it is now so it was in the beginning," we may trace the line backward and find that this country has never been altogether barbarian in architecture, notwithstanding the log cabin. Men came to the American continent when it was first offered for settlement from many different climes, and the forces of several rival nations contended here for control. England, France, and Holland sent the echoes of their artillery along the wooded shores of our seas and rivers, and even Germany, a nation that takes to colonial enterprises about as naturally as it takes to salt water, once succeeded in effecting a lodgment in at least one of our incipient States. The people who came here, too, were rarely of the lowest order, men and women habituated to the shelter of cabins. They were often persons of considerable culture and refinement, and they brought with them various architectural ideas which could not fail of soon taking form in at least the more highly-favored sections. Hence, always omitting the log cabin from our catalogue of styles, some of our earliest architecture, examples of which are still standing here and there throughout the original thirteen States, displayed a great deal of artistic feeling, and a pretty thorough knowledge of the principles of design. On account of the different nationalities represented by the first settlers, too, there is a wide variety. There is a pronounced difference between the examples to be found in New England, New Jersey,

Pennsylvania, Maryland, Virginia, and the Carolinas.

But even among the early settlers from England there was a sufficient difference in social traits to lead to a very pronounced difference in architectural taste. The offshoots of the English cavaliers who settled in Mary-

land lasted long enough to give a distinctively more modest character to their architecture than was manifested in the more congenial atmosphere of the South. Readers of this magazine will recall the illustrated article on the Colonial architecture of Anapolis, published some time ago (see Vol. I., No. 3),



FURLEY PLACE, 112 YEARS OLD.

land and Virginia differed radically from the roundheads, or Puritans, who peopled New England. The former were men of æsthetic training and they were given to social enjoyment. They seem to have created and maintained their homes with a view as well to the entertainment of guests as for domestic enjoyment. But the latter were men of the most severe simplicity. They would have looked upon a picture as vanity, and upon a house constructed after any lavish and ornate plan as an abomination. The abnormal piety of the New Englanders did not prove to be enduring. But it

and, if not familiar with the old architecture of Maryland, they were doubtless surprised at the classic suggestiveness of the pictures. But the examples furnished by Anapolis are by no means isolated. The writer recalls in an old plantation house in Prince George's County, Maryland, built so long ago that it was haunted, some examples of carved wainscoting which few architects of the present day would undertake to rival. Indeed, executed lovingly by hand with intelligence and taste, the work was beyond the rivalry of any carving machine. The difference between the architecture of Mary-



THE GAZETTE, NEW YORK, 1864.

Built 1721.

WASHINGTON'S HEADQUARTERS.



THE GREAT MANSION A HOME IN WISCONSIN BY J.C.

THE MANSION HOUSE.

land or Virginia and of Massachusetts was as great as the difference in their religion. In the South country the people were all Catholic or Episcopalian. But at the East they would have been Beelzebub himself before they would have been either the one or the other. The two sections were not, therefore, of precisely the same persuasion in anything; and though it is not meant to be said that a man's religion is responsible for his taste, it is possibly true that his æsthetic sympathies or taste is responsible to a greater or less degree for his religion. The people who planned the Colonial architecture of Maryland and Virginia would have felt more at home in a ritualistic cathedral than in a Quaker meeting house.

It is to New Jersey, however, rather than to either Maryland or Massachusetts that we must look when we wish to find the type of Colonial architecture that seems most original to our Anglo-Saxon eyes, and where the differences between Massachusetts and Virginia have been most successfully compromised. New Jersey, it must be remembered, or at least that portion of New Jersey which lies between the Hudson and Delaware rivers, was settled by the Dutch. It also made a part of the territory in dispute when England and Holland contended for the possession of the Hudson and its adjacent shores, and if the Dutch settlers did not prove themselves strong enough to maintain their independence after they were abandoned by the mother country, and traded ignominiously for the patch of wilderness in South America, now known as Dutch Guiana; they were yet strong enough to impress their civilization on the territory that they had pre-empted, and to erect enduring monuments of their intelligence and taste. We have no positive proof that the Dutchman ever constructed a log cabin. He may, or he may not have found it necessary to protect himself from the inclemency of the weather by some such contrivance when he first landed, but it is certain that he did not long remain so domiciled and that the dwellings by which

they were displaced, supposing them to have been erected, give evidence of a high degree of artistic culture. Dispersed through Bergen County, a territorial division which once extended as far southward as Constable's Point, on the Kill von Kull, and concentrated closely in that most delightful of suburbs, Hackensack, are still to be found many examples of colonial building, which suggest merit enough to be the foundation of a distinct architectural style. This assumption will be amply demonstrated by the pictures accompanying this article. In studying the different illustrations it will be seen that they contain suggestions which could be happily adopted in either urban, suburban, or rural architecture, a distinction which indicates very comprehensive faculties of architectural invention on the part of the designers. Not many years ago, for example, our architects went to France and brought home the mansard roof. Since that time, calling it the French roof, they have set up this seeming novelty on about every elevated point in suburban neighborhoods, and made it the crown of the edifice along almost entire streets in the cities. Evidently, they did not know that just over the Hudson River, in Hackensack, there is a better mansard roof, constructed nearly two hundred years ago, than anything they had succeeded in importing, and that the so-called mansard roof is really as Dutch as Van Blarcam. On the next occasion when our architects wish to go to Paris for an idea they will do well to go by way of Hackensack. They will do well also to go to Hackensack before going to England in search of the architectural aberrations which have perpetuated the reign of Queen Anne on these republican shores. What must be said here should be said modestly, but it should be said nevertheless. In everything except literary achievement, the Dutch civilization of two hundred years ago was superior to the English civilization; and in all departments of fine arts it was incomparably superior.

Readers may wish to know why Bergen County displays so many examples of colonial architecture while

in most other parts of New Jersey we may see only the usual display of buildings erected on next to no architectural foundation, and structurally suggestive of something which the builders themselves should look to outlive had they any reasonable expectations of life. The explanation may be found in history. In New York, and in most parts of New Jersey beyond the borders of his present domain, the Dutchman was outnumbered and conquered; but in Bergen County he was never conquered. He has maintained there his traditions and his control, and even to this day, in Hackensack, although the old village contains altogether too much that emanated from the Rosewater Land Improvement Company school of architecture, there still remains an indescribable air of antiquity which is both morally and artistically gratifying. It is morally gratifying because it speaks of reverence for whatever was excellent in the past; and it is artistically gratifying for the reason that it fosters the true spirit of architectural improvement, and refuses to abandon principles that are really classic in obedience to the dictates of mere fashion. This is the reason why Bergen County remains architecturally something like an oasis in the midst of a desert, and why Hackensack, a suburb which lies within cannon shot of the New York Post Office, but which few of our architects with their long-range vision seem to have discovered, possesses so many survivals of a type of architecture which should be adopted and developed in preference to anything else within reach. It is to be feared, however, that the architectural vandals have been led into this beautiful suburb, and given a too great latitude to operate in forgetfulness of the customs of the country. To say nothing of the new buildings which are often unworthy of notice, old buildings that became dilapidated have been remodeled in complete oblivion of the type of architecture which they represent. The improvements look sometimes like crab-apple grafts on cherry trees.

The church edifice, presented with this article, dates back to a period,

which, if not to be called quite prehistoric, is yet very remote for this continent. It was originally constructed in the year 1696, and it therefore lacks only two years of the end of its second century. True, the original building was destroyed by fire and the present church is a reconstruction; but it was reconstructed on the original lines. It has also been enlarged by extending the walls and roof at the end opposite the bell tower. But the enlargement, although interfering somewhat with the original proportions, was made in strict conformity with the first plan, and a sharp eye can detect the point of junction in the photograph. Externally, the building stands substantially as it was first erected. Observe the lines as they are brought out in all the perfection possible to the photographic art. The structure will doubtless look quaint to many modern eyes, but it is not quaint. If it creates an impression of artificial elegance, or quaintness, it is because the modern eye has been perverted by inartistic forms. True art belongs to no century and the lines of this church are symmetrical, delicate, and graceful. They are necessarily, therefore, entirely free from those eccentric perversions of proportion too commonly witnessed in much more pretentious examples of later church building.

This is the kind of architecture that will grow upon the speculator. Impressing itself upon the æsthetic sensibilities, it educates and refines; and it is not a cause for wonder when we observe that the First Dutch Reformed Church, of Hackensack, still remains the most fashionable church of the village. Possibly the congregation may feel disposed to resent the implication involved in this observation. They may not be willing to admit that their fidelity to the faith of their fathers is due to an idolatrous devotion to anything merely external to their religion. But the inference is nevertheless flattering to their æsthetic instincts. After the enthusiasm which distinguishes the proselyting era of a new religious society subsides a little, no church can afford to forego that poetic charm and dignity that at-



THE ZABRSKI & SONS, INC. PHOTOGRAPHERS

Built 1692.

THE ZABRSKI HOMESTEAD.



THE VANDEBECK HOMESTEAD

THE VANDEBECK HOMESTEAD.
Where Washington watched the retreat of the British forces.

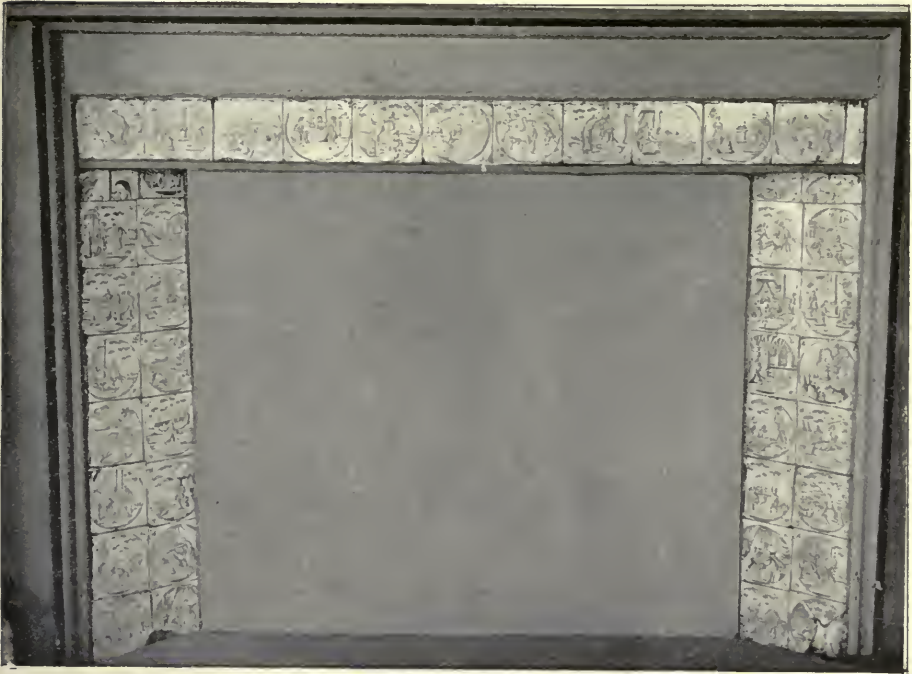
taches to architecture. The Society of Friends are learning this truth to their cost, even admitting that their decay may be in part due to organic causes too far-reaching in their consequences for discussion here. However potent for the salvation of souls religion may be, it is not always potent enough to save a religious society, composed of members strongly human in their instincts and desires, from dissolution. It is even possible that the First Dutch Reformed Society, of Hackensack, might have been not only once but twice, or thrice, or many times dismembered during the more than two hundred years of its existence had it not been for the really beautiful church edifice which none but a vandal, or a soul very deeply aggrieved, could ever abandon after having once

been gathered to its protecting fold. Hence it will be seen that the architect may be a factor in the cultivation of religious sentiment almost as potent as the preacher. He may be even more potent, indeed, in the sequel; for his creations, if pronounced good, will be immortal, and report his homilies to the latest generation.

Turn, now, from the church, after having examined the details carefully, and observed that not only every line is good, but that every stone is of exactly the proper size and adjustment, and look at the picture of the old hostelry known as the "Mansion House." Unfortunately, like a few other of the examples given, this building has not come down to us with all its original lines undisturbed. It belongs also to a later period than the church. But it



MANTEL IN HOPPER HOMESTEAD.—CUT WITH A PEN-KNIFE.



DUTCH TILES—BIBLICAL SKETCHES.

is still Colonial. It was built by Peter Zabriskie, one of the largest proprietors of Bergen County, at the beginning of the Revolutionary War, for a private dwelling. In the original plan and as first built it was only a two-story and attic building; but in after years, when it had been decided to convert it into a hotel, the attic was raised to the elevation of a full story. This accounts for the brick section of the walls between the upper veranda and the roof. But the roof itself, with all its decorative features, and the lower stories of the building, are unchanged. To say all, too, on account of its solidity in construction, the old house looks unchangeable. The walls are sometimes nearly three feet in thickness, and the walk through some of the doorways is like a walk through the hallways of more modern dwellings. But, notwithstanding this somewhat excessive regard for stability in construction, and the tasteless blunder of the builder who planned the alterations and used brick instead of the brownstone of the lower stories in carrying up the walls, the structure

still remains in its exterior an admirable example of Colonial architecture.

But if we wish to estimate the building at its true value we must examine the interior. The ceilings are low, of course. The Dutch were a too sensible people to climb high stairways for the gratification of a merely ostentatious love of displaying a large, empty space overhead. Yet they knew how to build stairs, and to build them in a manner worthy of more general imitation. In this building they are so broken by landings and turns, and so easy of ascent that a person reaches the top without the slightest sense of exertion. To a person accustomed to the long stairways of the period the facility of these stairs is even suggestive of the ludicrous. But the laugh is on the side of men who knew how to plan thoroughly artistic work without any affectation. Look at the wide hallway of this old hostelry and tell us of one thing in which it is found to be artistically deficient. There is nothing that true taste will seek to criticise.

As we leave the hall and enter the



THE CORNER HOUSE & BUNGALOW, 1887-1888

WILSON, W. J.

THE VAN SORN HOMESTEAD.



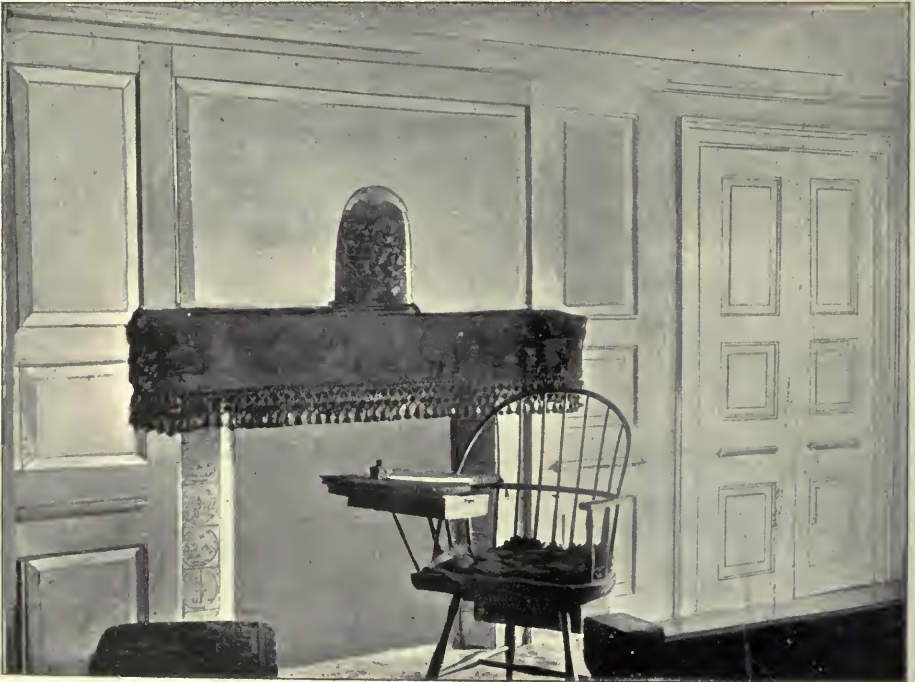
THE GARDNER, BOSTON, MASS., U.S.A.

THE BRINCKERHOFF HOMESTEAD.

Built 1704.

large rooms to the right and left of the entrance we find ourselves still more delighted with the work. The doors and deep window casings are elaborately paneled, and here are tiled chimney-pieces which seem to have been wrought out with all the care in details which the Dutch painters bestowed on their paintings. Each piece of tiling, delicately tinted, is traced with a design of some scriptural scene, comprehend-

But come up stairs and examine one of the sleeping rooms. Here, again, we find ourselves in communication with a genius at once practical and refined. These rooms are decorated with all the care and taste that made such a favorable impression in the rooms below. But utility was also considered. Our guide has but to open a few apertures in the wainscoting to show that we have really entered a storehouse of



PANELING IN THE MANSION HOUSE.—WRITING TABLE 160 YEARS OLD.

ing sacred history from the fall of man to the exit of Jonah, or perhaps to a later period. There is not an objectionable architectural feature to be seen, and, as to the low ceilings, one has but to study the proportions, or what a painter might call the keeping, for a few moments to find himself ready to declare that a nine or ten foot wall is high enough for any room of a church or public hall. The idea of anything higher than nine feet in a private dwelling seems like an inspiration drawn from vacuity.

domestic supplies. But externally there is nothing to indicate that the architect thought himself anything but an artist and decorator. Decoration seems to have been the chief object everywhere, and everything else is subsidiary. As the observer looks at the work he is forced to reflect that the Dutch came from a small country where the ability to economize space must have been an hereditary gift. Everywhere may be seen manifestations of good taste and judgment. There is plenty of admirable work about this building in all its parts both within and without. One

cannot help but regret the disfigurement of the exterior by a builder who could hardly claim to have been an architect, or even a person of cultivated taste, capable of appreciating good architecture when he saw it.

Still another picture of the catalogue must be commended to the special attention of the reader, not only because it offers a peculiarly graceful example of an architectural feature which no true architect can fail of approving, but because of its historical interest. It is entitled "Washington's Headquarters," and in the extension facing to the east, also photographed, may be seen the window from which the Commander-in-Chief watched the British Army on its destructive march along the valley of the Hackensack, following the opposite side of the river. The feet of Washington seem to have been omnipresent in Eastern New York and New Jersey, and wherever the antiquarian fails to discover his tracks he can imagine them, and conjecture that they have been worn away from traditions more than a hundred years old. But the presence of Washington in Bergen County is historically authenticated; and there is no more doubt that the building represented was his headquarters than that the building at Newburg, which has been monumentally embellished, was similarly distinguished. History, then, has contributed to the immortality of this old house at Hackensack, and forbidden that it should be passed without observation. Washington made a monument of every house in which he is known to have found shelter. The chief purpose of the introduction of the picture here, however, is architectural rather than reminiscent or historical. It offers an admirable example of a type of roof which was doubtless conceived at a time when the fine arts had received their highest development in Holland, but which gradually fell into disuse, even during Colonial times, as the English settlers with their cruder taste succeeded in forcing their straight and angular conceptions into the art of building. Straight and unbroken

lines were sufficiently artistic for the colonists of the last half of the eighteenth century, but such lines were never brought from Holland. Observe the graceful sweep of the roof as the line descends and curves upward into the projecting eaves or hanging veranda, characteristic of the earlier Dutch architecture. It is in the true spirit of thoroughly artistic design. Yet such has been the decline of truly artistic feeling in the architectural art, or at least among the great mass of architectural designers, that any architect of to-day who felt a disposition to adapt the line would fear that he would be thought "old-fashioned" or affected.

But now for the more forcible application of all this architectural and historical gossip. Hackensack, as it has been sufficiently said already, is a beautiful suburb. It lies in a gently undulating country where every prospect extends over some green valley or up the side of a not too precipitous hill, until the eye is lost along a waving line of emerald and blue that vanishes or blends in the distance. But to all right-minded persons there is unquestionably a greater charm in the old Hackensack than in the new. It cannot be denied that the new Hackensack has been in too many instances forgetful of its founders, and that it has failed to perceive that the true line of architectural evolution lies rather in the work of perfecting old forms of recognized excellence than in the invention of new forms. However powerful the intellect, no architect can evolve an entirely new order of architecture exclusively out of his own head. Yet to some such task too many of our architects seem to have devoted themselves when we study their plans and attempt to classify them in accordance with any recognized standard of taste.

The new Hackensack should be only a fully developed tree growing from the roots of the old Hackensack, and serving to perfect and perpetuate the species. The people of the town should not permit the soil to be incumbered all over with plants not only of a foreign but of a fungus growth, and

destined to be hardly more enduring than any other exhalations of a night that were born of a conjunction between miasma and an unhealthy soil. It is not right. The early settlers of New Jersey left a whole granery full of the most perfectly developed seeds that are to be found on any arborial preserves.

There is more of originalty and taste in the colonial architecture of New Jersey than we can find in corresponding examples in any other State of the Union. The first settlers of the State, it must be remembered, came from a country, which, at the period of settlement, represented about the leading civilization of Europe. Holland, during the seventeenth century, was not only the leading industrial and mercantile nation but it had become distinguished, if not pre-eminently distinguished in arms, and it was the country of Rembrant, Vandyke, and the entire school of illustrious painters who led the fine art of the strictly renescent period into its more modern development. The States-General were a power in Europe both materially and morally; and if the sterling qualities of the Dutch have been but vaguely comprehended in this country the imperfect conception of their traits has probably been due to the playful but somewhat juvenile historical effort of Washington Irving, in his History of

New York. It is a pity that the best known work of our really accomplished writer should have been his worst work. But this was the misfortune of Irving; and the first settlers on the territory which afterwards fell under the jurisdiction of the Duke of York could point to a very honorable ancestry, and very illustrious contemporaries among their own people. They were surpassed by neither the roundheads of Massachusetts nor the cavaliers of Virginia; and it should not be thought strange if among their architectural survivals we should be forced to look for not only some of the best examples of solid building in the country but the most artistic examples. This is precisely what we find, although more modern taste, not always intelligently inspired and often perverted by the thirst for the merely new and eccentric, has been growing further and further away from their suggestions. But if the architectural vagaries of the period of Queen Anne, a lady who reigned over a people not quite so civilized as the Englishmen of to-day, can lead us back in our search for antiquities to the artistic principles of the people who furnished to British royalty of the period its portrait painters, and to British artists their tutors the fashion will not have been introduced in this country in vain.

Wm. Nelson Black.





THE LOTIFORM ORIGIN OF THE GREEK ANTHEMION.*

I.



At the close of my last Paper I had briefly indicated, by text and illustration, a suggestive correspondence between certain floral forms on pottery and others in stone carving which to the mind of a Darwinian or an evolutionist, or to the eye of an anthropologist, would not leave much doubt as to the lotiform origin of the Ionic capital. But both the pottery and the stone carvings used for the argument belonged to Cypriote art, and the few additional illustrations for the central spike so far adduced from other sources might be considered insufficient corroborative evidence.

At least two considerations would consequently forbid the student from stopping at the point which I had reached in August, 1887, as outlined in my last Paper. One is, unfortunately, that Cyprus does not yet occupy that position of supreme importance for the problems of Greek (and even of Oriental) archaeology which that island is soon destined to assume. An argument based on Cypriote art must, at present, seek corroboration outside that centre,

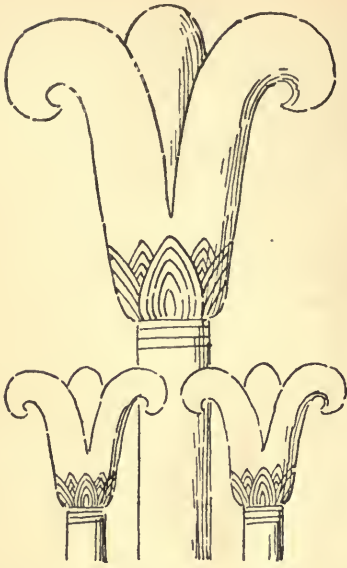
before it could hope for immediate or wide acceptance, and largely for the reason that critics and students are not sufficiently familiar with Cypriote art to cause them to realize off-hand the far-reaching significance of the arguments drawn from it.

Again, the objection would obviously rise—"If the lotus motives of Cyprus are derived from Egypt, which appears to be your axiom, what are you going to do about the present attitude of science, which concedes the Ionic capital to Assyria; provided the Ionic capital also be a lotus? Do you claim that the Ionic of Assyria came from Cyprus? This exactly reverses the present assumptions of science, for we have not



Granite pillars at Karnak. On one of them the Ionic lotus in relief; about 1600 B. C.

* Being the fourth Paper of a series on the evolution of classic ornament from the Egyptian lotus. See October Number: "The Lotiform Origin of the Ionic Capital."



The lotus trefoils of Karnak. Stone relief. Detail of the photograph preceding.

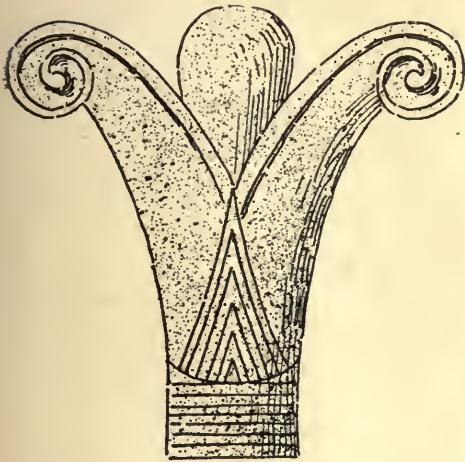
yet learned that this island gave laws and art to Mesopotamia. If on the other hand the Ionic capital came from Egypt to both Assyria and Cyprus, proofs based on Cypriote art are evidently insufficient; you must face the music and bring us proofs from Egypt." This is what I am about to do.

My demonstration through the central sepal spike* was first published in the "American Journal of Archæology," October, 1887. I found after the article was in type, and before it was cast, that I had been anticipated on this particular head of the central spike by M. Marcel Dieulafoy, the celebrated explorer of Persia, and was able to make acknowledgment in the same article before publication. M. Dieulafoy was not, however, aware of the phenomenon of the curling sepal in the natural plant, nor was he acquainted with the lotuses on Cypriote pottery. His own original suggestion was derived from a granite pillar at Karnak, on which is carved in relief a column having a trefoil lotus capital with incipient Ionic volutes. This is the only case of a surviving Egyptian example

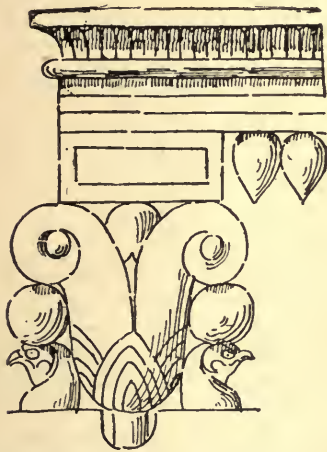
in actual architecture of an Egyptian Ionic form, and hence, on account of the apparent or supposed deficiency of more examples of the Egyptian Ionic, we are now called upon to show that the existence of Egyptian Ionic capitals is notwithstanding easily demonstrated, to explain how they have been overlooked, and to explain the disappearance of the actual originals. From this following explanation it will also appear that we are able, if required, to dispense with any appeal to designs on Cypriote pottery, which being of later date than early Egyptian art, might be considered insufficient evidence on the question of an Egyptian form. (I may, however, add on this point that *all* appearances in ancient Oriental art possess a much higher antiquity than that claimed for any existing monument; that all our existing monuments represent traditional survivals of earlier forms, and that among these survivals those nearest to nature represent types originally nearest to the highest antiquity.)

The example at Karnak is a *relief*. There is then *not even one* surviving example of an Egyptian Ionic capital in actual construction. The reason is that in Egyptian use the form was confined to capitals of wood, and these have all disappeared. Most of the surviving stone capitals of Egyptian architecture are conceded to represent the sacred water-lily, but their forms have a simple solidity and massiveness corresponding to Egyptian taste in stone construction. That the Egyptians suited their style to their material and practised a more graceful style in other materials than stone is just beginning to be appreciated. The proof that such capitals of wood once existed lies in the tomb paintings, and the tomb paintings in question were first published by Prisse d'Avannes, in 1879. Prisse d'Avannes was an artist and not an archæologist. His text was written by an author who was so little versed in his subject that he has published a relief of the New York Museum found in Cyprus as a work of Egyptian art from Karnak. This will explain to the layman how proofs of various facts are found in the plates of Prisse d'Avannes,

* October Number, 1893, of THE ARCHITECTURAL RECORD.



Egyptian lotus trefoil capital. From tomb picture of timber construction.



Egyptian lotus trefoil capital. From tomb picture of timber construction.

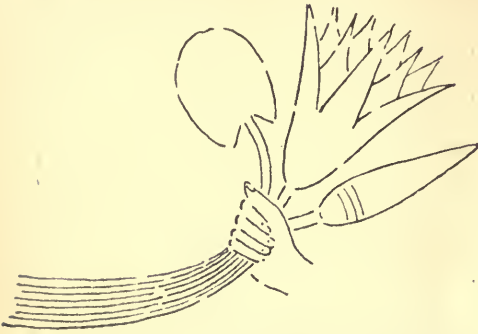


Egyptian lotus trefoil capital. From tomb picture of timber construction.

which the artist did not himself perceive or draw attention to. The value of their evidence in illustrating the predecessors of the Greek Ionic capitals has, moreover, been so far universally overlooked, even by authors like Perrot and Chipiez, who have republished some of them, and for the reason that they have not been related to the Proto-Ionic Cypriote capitals and other connecting links. Aside from names already mentioned, the German architect, Hans Auer, seems to be the only one who has appreciated their value as forerunners of the Greek Ionic, but Auer did not perceive them to be lotuses.

If we compare these capitals of wood, as known from tomb paintings, and the stone relief trefoils of Karnak, with the surface representations of the blue and white lotus in Egyptian art, we shall realize the importance attaching to the character of the sepals in the *Nymphæas*.* It is here that the significance of the "three-spiked" appearance of Egyptian lotus designs is seen, and of the trefoil form, as derived from them. As long as the "Rose lotus" was supposed to be the typical Egyptian ornament, the origin and consequently the importance of this trefoil form could not be appreciated, because the calyx leaves (sepals) of the "Rose lotus" offer no basis for a conventional evolution of a trefoil form. Thus we find a reason for the backwardness of archæology in the matter of the lotus, as connected with its mistaken prejudice that *Nelumbium Speciosum* furnishes the typical ornament of Egypt.* It will appear from my cuts of the Egyptian lotus in surface designs (next page) that successive conventional steps eliminated the petals (in some cases) until the skeleton form of the three sepals alone survived. This is the origin of the lotus trefoil which is so common in Egyptian art, in the Greek art derived from it, in the Byzantine art derived from Greek, and in the Arab designs, derived from Byzantine. It is also the form from which the conventional "fleur de lys" is derived. This trefoil is the residuum of the sepals

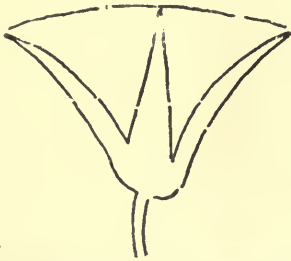
* October Number, 1893.



Type of the Egyptian Nymphaeas from a tomb picture. Showing a three-spiked appearance of the sepals as origin of the trefoil.

as pictured, in side view, by three prongs or spikes, which survive as a skeleton pattern after the petals have been conventionally eliminated. This process of conventional elimination is to be understood as the result of the effort of the artist to simplify and shorten his work and of his *dependence on an earlier copy* as distinct from a new original observation of the form in nature. His independence of nature results originally from the talismanic and magical value of the copy, subsequently from the force of habit and tradition.

The question may be raised—"How do such conventional evolutions relate in the matter of period to more realistic forms, and are they not necessarily later?" To this I answer that we do not assert that any difference of period, as regards the *illustrations* of an evolution, is essential to the argument. The monuments used in illustration are not the original factors in the evolution; they are only traditional survivals of its various stages and of its remote and



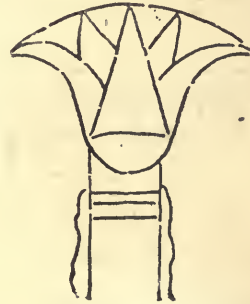
Detail from a tomb picture. Showing elimination of all the petals and survival of three sepals as origin of the trefoil.



Detail from a tomb picture, showing a conventional elimination of the petals contrasted with realistic rendering of the same. Compare the flowers right and left.

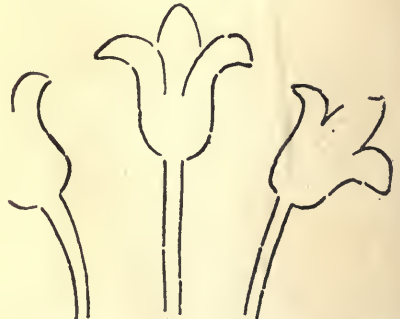
various results. It is not essential to the argument of the Darwinian theory that man should be the only form of life now found on earth.

The combination capital from Menepthah's tomb (page 269) is a valuable instance of the way in which Egyptian art constantly combines its

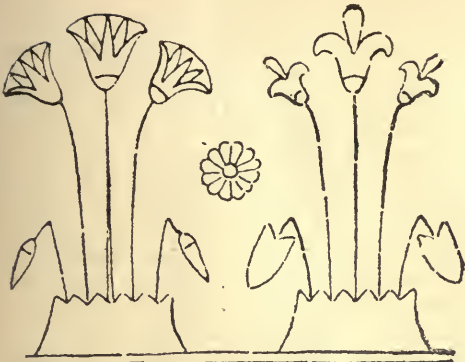


Detail from a spoon handle. Showing conventional representation of two petals and survival of the sepal spikes.

highly conventional forms which can only have been reached gradually, with more closely realistic traditional continuations of the older realistic designs. It consequently shows, as do my other attendant illustrations of these pages, how different forms of the



Detail from a tomb picture. Showing the lotus trefoil as conventional residuum of the sepal spikes.



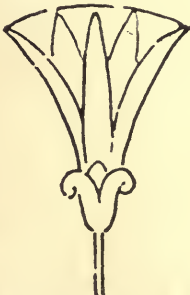
Associated lotus variants; one phase showing trefoils supporting inverted buds; compare the design opposite and page 282.

lotus may subsist side by side in the art of one given period or in adjacent patterns; a point which might not be immediately obvious to one unfamiliar



Trefoil type from a tomb pattern; showing a decorative exaggeration of the central sepal with a feathered or palmette attachment explained by crossing with the palmette type at page 286.

with the actual monuments and their relative dates. Such a person is apt to argue from the dissimilarity of two floral forms, when placed side by side,

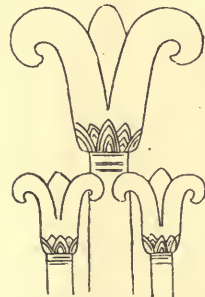


Type showing a conventional combination in one flower of trefoil below and detailed lotus above.



Volute lotus trefoil with central members consisting of an inverted bud. Detail of a pattern on page 282.

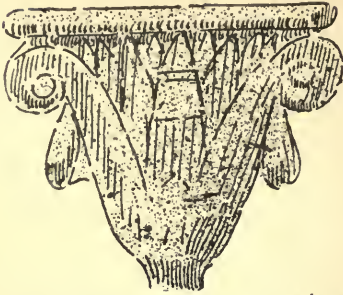
that they cannot represent the same plant because they are not like one another. This argument has been urged against me by several well-meaning critics—gentlemen who appear to think they have said something when they have only been talking. The objections from dissimilarity to nature, as urged by Professor Paine in the "Independent," show a really infantile ignorance of the history of Egyptian design. In periods of Egyptian art known to us there is not, either in realistic or conventional lotuses, any relation to actual observation of nature. There are only traditional survivals of realistic designs side by side with survivals of others which have become so remotely conventional as to lose all semblance of nature. It follows that we find side by side, in one period or



Stone relief trefoil of Karnak; repeated from page 264 to compare with the following.



Lotus trefoil with developed Ionic volutes. Blue enamel amulet in the Louvre. (Dieulafoy.)



Blue enamel amulet. Louvre. For comparison with the trefoils and to show that the volutes develop from the sepals. (Dieulafoy.)



Cyprite pottery lotus. N. Y. vase.



Flower from nature, with curling sepals.

on one monument, results of conventional evolutions which are also dissimilar and which also represent the one plant. It is so, for instance, with the trefoil, which appears both with volutes and without. This fact is indicated by the illustrations of page 267. It also holds that there is no distinction to be drawn in argu-

ments between designs for capitals and those which illustrate patterns of amulets. Both are valid evidences for changes which affected both.

Thus it becomes plain that the trefoil capitals of the tomb paintings are lotuses and consequently that the volutes of the trefoils are volutes of the *sepals*—a point made especially clear by an amulet in the Louvre and by a tombstone from Cyprus, herewith illustrated. In these phases of the Egyptian Ionic volute it is evident that the natural appearance of the curling sepals,* which curl in nature from the base of the flower, has been evaded, because inconsistent with decorative and architectural conditions. This evasion consists in placing the curl of the sepal at the top of the flower. In architectural or other solid forms, break-

age would otherwise have resulted. But it is difficult not to believe that the curling sepal of nature was the original suggestion of the most primitive Egyptian lotus volutes now known and here illustrated. It must be remembered that all monuments of the actual historic evolution of Egyptian art are lacking at present. These all antedate the IVth Dynasty, with which our present knowledge of Egyptian art begins. In this deficiency of earlier Egyptian monuments the great importance of the Cyprite pottery lotuses is their evidence that ancient decorators in close relations with Egypt actually had noticed and imitated in a fairly realistic way the curling sepals. We are, moreover, able to show in Greek art a decorative evolution of fully developed, apparently geometric, spirals from the Cyprite pottery form (pages 273-277). This makes it impossible to deny that the Egyptians accomplished a similar evolution.

The argument then stands thus, as far as the curling sepal is concerned: We can prove that ancient decorators related to Egypt noticed the curling sepal of nature. We can prove that some geometric spirals actually did



Cyprite pillar capital. New York Museum. Head of Isis-Hathor (the Moon) supported by lotus with curling sepals.

* Illustrations from nature in October Number.



Combination capital from a picture in tomb of Menephtah (14th Cent. B. C.) The lower member is a bud, over which appears the normal flower with two buds. This supports an Ionic trefoil, above which is a lotus having volutes joined by a straight line.

develop from this curling sepal (pages 273-277). We can show in Egyptian art a conventional curl of the conventional sepal having as close a relation to the curling sepal of nature as the given material and the consequent conditions of breakage will allow. If there should be, after these points are duly considered, any one having a right to an opinion on the subject who prefers to believe that the volutes of the Egyptian trefoils developed from a gradual decorative bending over and ultimate decorative curl and not from an original suggestion of nature, it is all one to me. The explanation of a phenomenon is one thing; the matter-of-fact existence of the phenomenon is another thing. It is with this matter-of-fact that I am now dealing.

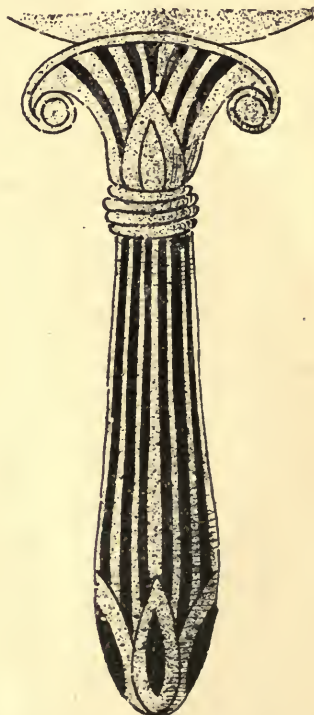
What I positively assert is that the lotus in Egypt did have, among other forms, an Ionic or voluted form, and that this Ionic form did positively produce the Greek Ionic capital. Once more I observe that it is difficult for the layman to appreciate the destruction of the monuments which has obscured the transitions and connecting links with Greece; but it is not to be overlooked that a voluted lotus capital with a straight line connecting the volutes can be dated in Egypt, by a tomb painting, to the fourteenth century B. C. The combination capital from the tomb



Egyptian originals of the Ionic capital; from tomb paintings. Published by Wilkinson in 1857 as "water-plants."

of Menephtah, the Pharaoh of the Exodus and son of Ramses II., shows this straight upper line. A mirror handle in Florence, which is an obvious copy of an architectural original, shows an Egyptian lotus capital whose upper line resembles that of the Ionic capitals of the temple of Bassæ.

Since many evidences of the transition from the Egyptian voluted lotus to the Greek voluted capital have disappeared, with the original Egyptian Ionic capitals themselves, it is the more important to insist on the historic contact which explains the possibility of the transition. It is necessary to say that neither historians



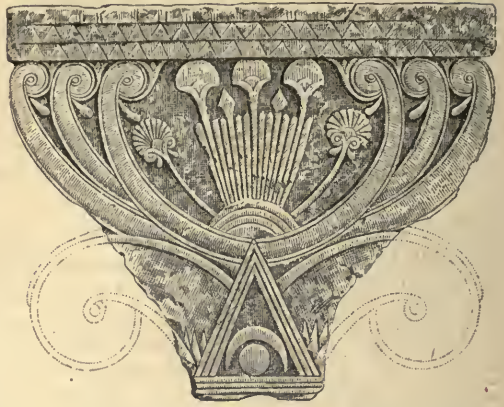
Egyptian mirror handle, copied from an architectural column and showing the Ionic volutes. Florence.



Cypriote Ionic capital (Louvre); showing a rudiment of the central sepal spike (see cut below) and the signs of sun and moon worship.



Cypriote lotus trefoil from a sarcophagus pattern. New York. Compare the above capital.



Cypriote pillar capital; showing the conventional curling sepals and central sepal spike. Sun and crescent moon on the capital. Aphrodite Temenos, Idalium. (Ohnefalsch-Richter.)

or archæologists in general have properly appreciated the significance for Greek history of the presence in Egypt of large numbers of Greek mercenaries, who were the *corps d'élite* of the Egyptian army in the eighth, seventh and sixth centuries B. C. Greek traders overran the country in the same centuries. It was not till Mr. Petrie's recent excavation of the ruins of Naukratis, the famous Greek colony of the Nile Delta, that the intimate relations of the Greeks with Egypt have begun to appear in their true light. Cyprus was a more important, because an older, centre for the diffusion of Egyptian influences among the Greeks. This Island, ultimately tenanted mainly by a population of Greek race, was notwithstanding saturated with Oriental and Egyptian influences, partly through direct commerce with Egypt, partly through Syrian and Phœnician transmission.

It must be admitted that Cyprus furnishes at present the largest number of those archaic and transitional Ionic forms which are nearest to the later forms of Greek art, and it seems to me certain that the evolution of the Greek Ionic capital actually took place on this island; for although the counterparts and remote ancestors of the Greek Ionic are abundantly attested for Egypt, its exact original is scarcely to be sought there. It is especially interesting to notice on several of the Cypriote capitals illustrated in these Papers the representation of the sun and moon symbols (disk and cres-

cent) which is so common on Phœnician votive tablets to their deities and with which the normal sacred lotus is also so constantly associated in Phœnician art. In the stage of evolution represented by these Cypriote monuments the solar (and lunar) significance of the Ionic capital, as resulting from its identity with the lotus, is clearly indicated. This leads to the remark that none of these capitals appear to have been portions of a building, since only one or two are found in a given place. On the contrary, they are announced by Dr. Max Ohnefalsch-Richter (on grounds quite independent of the lotus derivation of the capital) to have been sacred sun-pillars flanking the approach to Cypriote sanctuaries and disposed in a fashion corresponding to that of the Egyptian obelisks, which were also monuments of solar worship. (That they were in some cases tombstones appears also probable, and here again the funereal and resurrection significance of the lotus is to be considered.)* The observations of the same scholar show that the Apollo of Cyprus was certainly identified with, and probably derived from, the Syrian Sun-god Resef, and that the sanctuaries of Apollo in Cyprus were sanctuaries of Resef-Apollo—that is, of a Sun-god worshipped indifferently under both names or either one. The identification of

* See October Number, 1892.

the Greek Aphrodite of Cyprus with the Phœnician Astarte (Chaldean Istar and Egyptian Isis-Hathor) has been long familiar with students, and the derivation of the Greek Aphrodite, by way especially of Cyprus, from this Oriental Moon-goddess, is sufficiently certain. Let us not forget, then, that there is evidence for a fusion and connection of Greek and Oriental cults in Cyprus which assists us to understand an evolution of the Ionic capital as there accomplished. Whether this evolution was consciously accomplished is not a very important question. My own belief would be at present to the contrary. The sacred symbol or talisman becomes a more important object than the natural form from which it is derived or so important that it is quite independent of it. Its repetition and manufacture are traditional—a matter of consecrated habit. That the Greeks of the mother-country in the fifth century B. C. had utterly forgotten the origin of their Ionic capital is clear enough from the ignorance of Vitruvius, who still had access to original Greek documents and authorities. There is no evidence that any of the Cypriote capitals illustrated are older than the sixth or seventh century B. C., and it would be strange (possibly) that a Cypriote knowledge of the true origin of the form had not floated over to the mother-country, if that knowledge had then existed. It has been reserved for the nineteenth century to know more about the Ionic capital than did the Greeks themselves, who created its most renowned examples.

It is still another and distinct question when the Ionic capital lost the sacred character which the sun and moon symbols on Cypriote capitals (as well as their use as sanctuary pillars) indicate that they still possessed in Cyprus. This question is hardly worth answering, because it proceeds from an attitude of mind (*viz.*, our own modern attitude) which separates the secular and profane from the sacred and divine. But this distinction, being foreign to nature itself, is foreign to all natural religions. Still, this question, though not admitting a definite answer, is worth discussing, because it concerns

the entire question of lotus symbolism.

The magic power of the lotus as counterpart, offspring and representative of the watery element from which the heavenly bodies were derived by Egyptian science, must have been most strongly felt where the solar and lunar origin and character of the derivative deities were most distinctly recognized. In other words, the question of lotus symbolism for the Greeks concerns the local points of Greek and Oriental contact, as distinct from points remote to this contact; and it concerns the earlier periods of general Greek dependence on Oriental influence as distinct from later periods of general independence. And what holds of the original talisman must hold of its derivative conventional counterparts. On the other hand, as regards the continued use of a symbol when belief in its talismanic power has faded or disappeared, it must be remembered that the force of traditional habit lasts long after the force which made that habit traditional has passed away. If our own art still attests this fact, why not concede it for the Greeks themselves? As a matter of fact the force of traditional habit is everywhere continuous indefinitely and without any limit whatever, until a new force comes in question to displace it. Mr. Balfour has reminded us, in his "Evolution of Decorative Art," that we wear two buttons above our coat-tails in cutaway coats, because they were once necessary to hold back the buttoned flaps of long-skirt coats in the eighteenth century. The modern potters of Cyprus still place on their common earthenware vases two little spots of clay, without knowing why, and because their fathers did it before them. These spots of clay represent the breasts of Artarte, whose head once consecrated the vase and at the same time adorned it. The time is coming when our own Ionic capitals and anthemions will be known as representing an exactly parallel fact—that is to say, the perpetuation of forms entirely destitute of meaning to the people who use them, and yet owing their existence to a meaning which once was inseparable from them.



Greek anthemions from the Erechtheum.



Ionic capital found in Cyprus (Ohnefalsch-Richter).



Melian vase in Athens (7th century B. C.). Compare the neck ornament below and body ornaments, pages 275 and 276.



Rhodian vase (6th century B. C.). The motive on the left of the upper zone is shown on the next page.

II.

I have thus far pointed out, in the matter of the Ionic capital, certain significant indications largely drawn from Cypriote examples bearing on the asserted discovery regarding its origin (October Number). I have then, in the first portion of this Paper, appealed to Egyptian examples in corroboration. But there is still left in reserve the most positive and conclu-

sive proof of all—one which involves the anthemion and rosette; returning in a circle to the Ionic form and proving it to be the counterpart and relative of the anthemion in such a way that there is no escape from the conclusions already drawn, and that new ones of far-reaching importance are at the same time added to them.

It was in the months of July and August, 1887, that, having worked out the demonstration from the central sepal spike, as found in rudimentary survivals on Cypriote capitals, I stumbled on a clue which enabled me to connect the Ionic volute with the surface spirals and spiral scrolls of Greek art in general and both with the anthemion.

A very rare but very important type of early Greek pottery is that known as Melian, from the Island of Melos, to which it appears to be native. In the publication of these Melian vases made by Professor Conze, of Berlin, I had noticed a type of ornament whose enormous spirals appeared to be a decorative development of the lotus as known to me on



Doubled Melian lotus—one flower inverted. The spirals are evolutions from those of the Rhodian motives on next page.



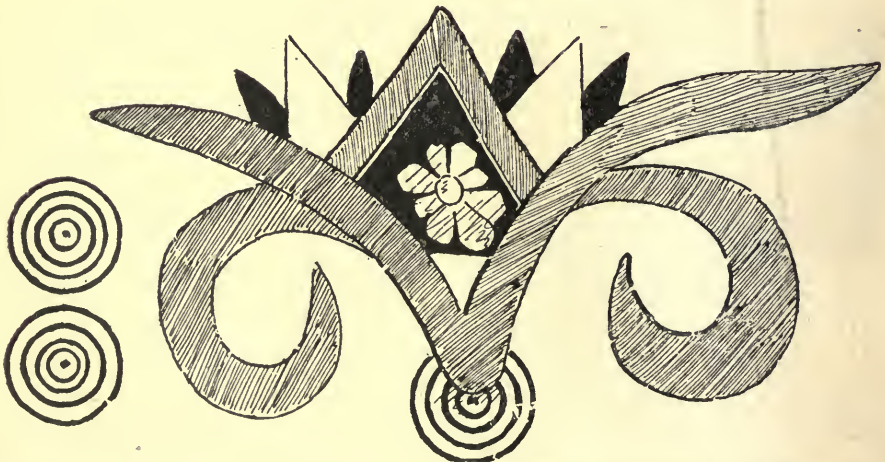
Rhodian pottery lotus, derived from the Cypriote type below. For the entire vase see page preceding.



Rhodian pottery lotus, derived from the Cypriote type below.

Cypriote pottery. The form in question is a doubled lotus, one flower erect and one inverted, of remote resemblance to nature and resulting from a series of decorative conventional departures starting from the Cypriote pottery form. According to my supposition that these spirals had developed from the Cypriote curling sepal it was necessary to find connecting links in the intermediate pottery style of Rhodes, and these I found in the magnificent publication of Salzmann. In geographical position Cyprus, Rhodes and Melos lie in the order named from East to West. The traditional pottery styles of these islands naturally show a graded sequence in which the art of Cyprus is nearest to the Oriental, that of Melos is nearest to the later Greek, and that of Rhodes is intermediate.

The evolution of the Rhodian and Melian types of lotus from the Cypriote is made obvious by the illustrations. When the Cypriote lotus is taken as a point of departure it will appear that every form of the spiral on Melian vases is a decorative modification of, or directly related to it. A substitution of a palmette crown for the pointed petals produces one variant (pages 275, 276). An inversion of the lower spirals of the doubled palmette produces the variant of page 277.



Cypriote pottery lotus with curling sepals (N. Y.), showing the starting point of the Rhodian and Melian spirals.



Rhodian pottery lotus with a palmette crown. The palmette is derived from Cypriote forms on metal shown at page 287 and there explained.



Primitive pottery anthemion, derived from, or related to, the Rhodian type adjacent. From the Melian vase on page 273.

The inversion of one spiral of the primitive palmette opposite creates the spiral scroll with palmette filling. The dropping out of the palmette filling gives the pure and simple spiral scroll.

More important than any explanations or assertions of my text will be found just here the comparison of my cuts from pages 274 to 277 inclusive, from the point of view that they are all decorative variants of one motive. It is not claimed that this comparison is anything more than a suggestion. The comparison simply states a problem to be worked out, and this problem is—"Are the volutes at the base of the anthemion of later Greek art (page 272) identical in origin with the volutes of the Ionic capital (same page)?" If so, the problem requires us to explain the palmette crown of the primitive anthemions of page 275. This was, originally, in Egyptian art, a demirosette.

In order to prove that the suggestion obtained from Melian vases leads to a positive demonstration for all the isolated spirals, scrolls and anthemions of Greek art, I must first indicate the existence and explanation of the Egyptian lotus palmette, which is the exact original of the Greek anthemion. This again involves the problem of the rosette. As I have said in my preceding Paper it is impossible to accept the Ionic capital as a lotus without admitting these additional forms.



Section of a motive on the neck of the Melian vase at page 273. This motive is a variant of the anthemion above, obtained by carrying the lines of the spirals around and over the palmette and then repeating.



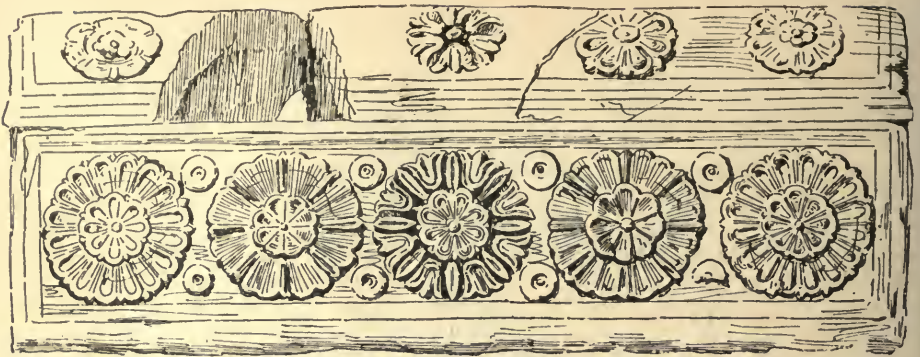
Spiral scroll from the Melian vase on page 273. Showing a variant of the anthemion above—one spiral being reversed and palmette doubled.



Doubled palmetted Melian lotus, from the vase on page 273. Compare the cut in text (page 273) for the doubled Melian form with serrated design of petals. The inverted Ionic lotus here above is analogous to the types of Cypriote capitals. Compare anthemions top of the preceding page for the single form here doubled.



Palmated doubled lotus, showing an inversion of the lower spirals. Decorative variant of full-page design preceding. Ionic lotuses on the base at either side. From a Melian vase in Athens.



Syrian sarcophagus; Greek period. Louvre. The rosettes show the decorative elaborations of Alexandrine art, but the combination of lotus trefoils is distinct in the central ornaments both of the coffin and the cover.

III.

It is a prejudice of archæology that the rosette is an Assyrian ornament as regards derivation, and this prejudice is one illustration of the fact that archæology has still something to learn. This prejudice also illustrates the fact

that the history of pattern ornament has been strangely neglected.

My argument on the head of the rosette, as regards its Egyptian origin, has not only been accepted by Professor Maspero,* but he has devoted one page out of the two and a-half which he gave to his notice of the "Grammar of the Lotus" to an additional argument in the same direction. The gist of his argument is that the prejudice in question had actually led Adrien de Longpérier, when Director of the Louvre Antiquities, to transfer rosettes found in Egypt to the Assyrian cases of the Louvre where they still remain and where they can be used to-day as an illustration of the Assyrian origin of the rosette! My argument on the Egyptian origin of the rosette has also found favor with Dr. E. B. Tylor (London *Academy* review), and strange to say, with M. Foucard, the critic of the *Revue Archéologique*, who has otherwise committed the absurdity of admitting my demonstration for con-



Cypriote archaic Greek vase, New York. Border of lotus trefoils and buds. Two borders of rosettes. Compare the rosette on the large Cypriote lotus (page 274).

* "Revue Critique," June 6, 1892.



Rhodian Greek vase (5th or 6th century B. C.) Illustrating the origin of demi-rosettes by intersection. To compare with the demi-rosettes of the Egyptian lotus palmette (pages 285-287).



Pavement slab from Nineveh. British Museum (similar fragment in the New York Museum). Lotus flowers, buds and rosettes of Egyptian derivation. No Assyrian rosettes can be dated back of the 9th century B. C.

centric rings in Egypt and of disputing the demonstration for the Ionic volute in Greece. (In other words, M. Foucard has admitted the most remote of all my conclusions and has rejected its most elementary postulate.)

Having in my earlier Papers disposed



Rosette supported by a lotus flower. Detail from stone carving on temple columns at Esneh.

of the objection that rosettes are a form of ornament common to all primitive decoration; having shown that they have always been traditional in Europe and that it is extremely illogical for reviewers to argue from the practice of a modern kindergarten or public school to a question of anthropology and history—it remains to say that the rosette is positively not originally Assyrian and that in Egypt it

is a form of the lotus, as it is already conceded by experts to be in India.

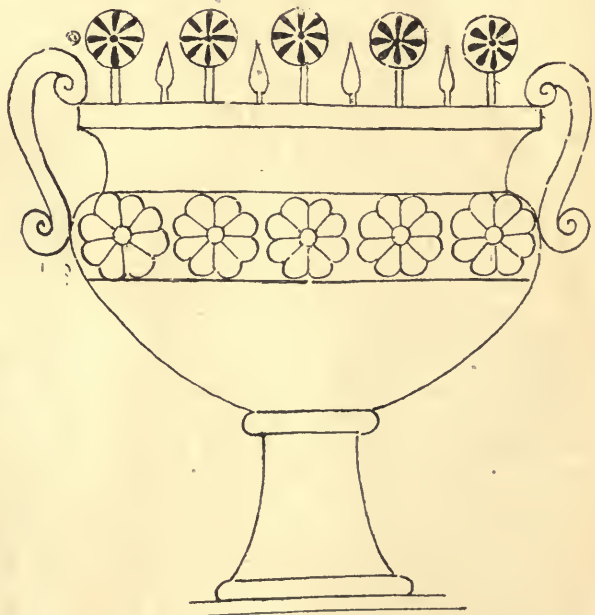
Rosettes are very common on Assyrian relief slabs used for pavements and for veneering palace walls, and they are also common on Assyrian tiles—but none of these remains are earlier than the ninth century B. C. Rosettes are unknown in Egyptian stone carvings before the time of the Roman Empire (I only know them in



Enamel rosette amulet; Owens College, Manchester. Dating about 3000 B. C. (Petrie.)

Egyptian stone carving on the columns at Esneh), hence probably the prejudice that they are an Assyrian ornament. As a surface decoration in color, rosettes can, however, be dated in Egypt to the Pyramid Dynasties* (4,000 B. C.) As an amulet form they can be dated to the Twelfth Dynasty (3,000 B. C.). As a constant fresco motive in tombs they can be dated to the Eighteenth Dynasty (1,600 B. C.). The tomb frescoes in

* Illustration in April Number—Head-band of the Lady Nefert.



Ceremonial gold Egyptian vase; from a painting in a Theban tomb. Border of rosettes on the vase, which supports ceremonial plants in metal—lotus buds and rosettes on conventional stems.



Entrance to a Theban tomb. Valley of the Kings.

which these rosettes appear were first abundantly published by Prisse d'Avennes in 1879, but the evidence of his plates has been ignored or overlooked until I took the matter in hand. In fact the first result of his publication was an essay on Egyptian ornament by a German critic, Von Sybel, attempting to prove Assyrian influences on Egypt because the plates of Prisse d'Avennes showed a hitherto unsuspected quantity of Egyptian rosettes! There is a good deal of amusement to be gotten in a quiet way from the study of pattern ornament.

My suspicion that the rosette is a lotus motive was first roused by botanical pictures of the ovary stigmas of the blue and white Egyptian water lily. The top of the seed-pod (ovary stigma) has this form according to the illustrations herewith. The English botanist and Egyptologist, Mr. Percy E. Newberry, has independently reached the same conclusion, although his proposed announcement was anticipated by mine and was consequently withheld from publication. There are also Egyptian rosettes which represent a lotus flower expanded and flattened out. Other rosettes are combinations of lotuses, or combinations of lotus buds.

The associations in which these rosettes appear in Egyptian ornament are such as to make the lotus connec-

tion unmistakable, and there are many arguments to be mentioned subsequently which corroborate the same conclusion.

The tomb frescoes show us a multitude of symbolizing combinations where the rosette appears with the bud, flower and leaf, in such fashion that it is impossible to ignore the evidence when it has once been pointed out (pages 282-284).

Let us remember what has been already proven regarding the use of the lotus in Egypt.* Its picture is a talisman and has magic power. It is an emblem of solar worship, of generative power and of immortality. Hence its use in tomb paintings. Now, when we find in a tomb pattern the picture of a lotus or of a bud, joined to a picture of a rosette, must we not conclude that this association is significant? When we find buds supporting a rosette, or lotus flowers supporting a rosette, as on the temple columns at Esneh, is not this conclusion again obvious. We can point to buds which support inverted

* October Number, 1892.



Border patterns from Egyptian tombs. Compare the details on pages 282 and 284. Originals in color.

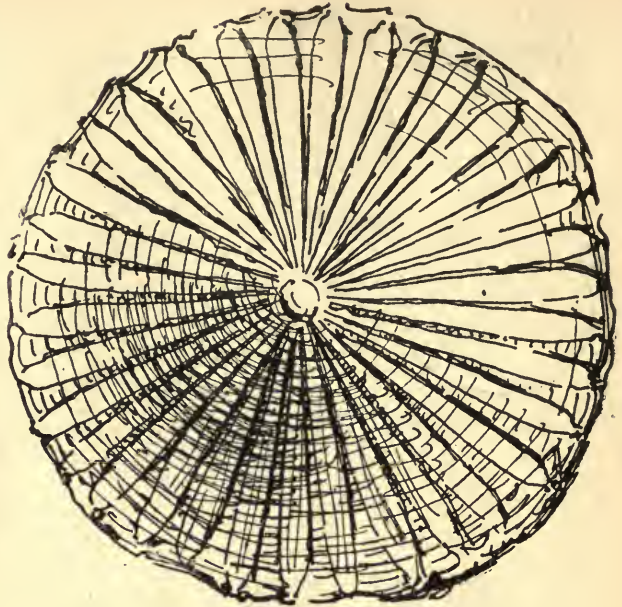


Ovary stigma of the blue lotus. From the botanical Plates of the "Napoleon Egypt." Compare page 283.

buds, and to rosettes which support buds inverted and which support buds erect. We can point to leaves supporting buds and rosettes which support leaves, and again to flowers supporting buds (inverted), and again to flowers supporting leaves.

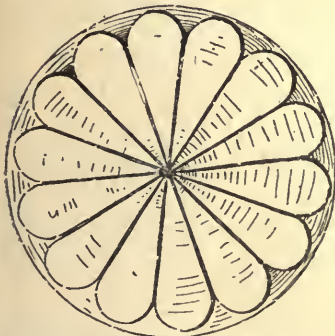
Is it possible to deny significance and conventional and symbolic floral association in some of these cases? Is it possible to admit significance and conventional floral association in some of these cases and to deny it in others?

Take once more the case where the rosette is represented on the Cypriote pottery lotus, or where the rosette appears between the flowers and the buds, and how can my conclusion be avoided (page 283). We cannot prove absolutely in any of these cases that the ovary stigma offered the original suggestion. In default of literary record of course there can be no absolute



Dried ovary stigma of the lotus, after seeding. From Nature.

proof, but we can prove that the rosette is a lotus, and when this proof is once admitted, the ovary stigma becomes one highly natural originating motive. In many cases the expanded flower, conceived as flattened, is the obvious design and it may have prompted all which are not obviously flowers or buds symmetrically combined (and these two last cases are the least frequent). Still the differentiation between the rosettes with pointed sepals and petals and those with rounded radiations at the points seems to indicate the ovary stigma as one of the original forms.



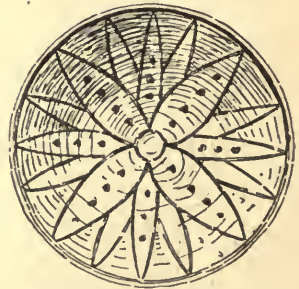
Conventional rosette (ovary stigma) in stone relief. From an Alexandrine stone sarcophagus. N. Y. Museum.



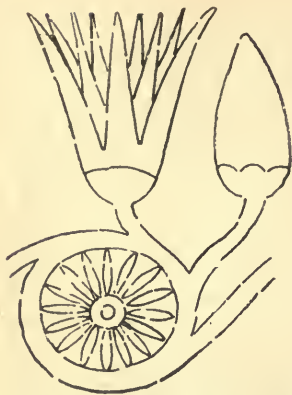
Rosette of lotus flowers from an Egyptian picture of a gold vase.



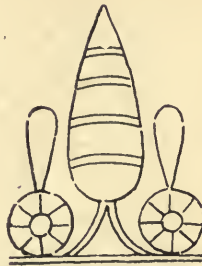
Rosette of lotus buds. Cake stamp from Naukratis. Roman period.



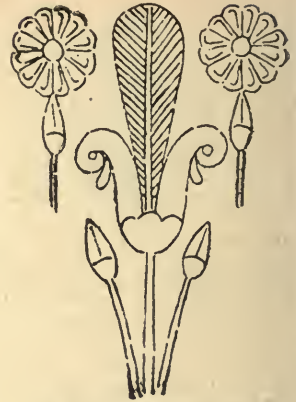
Rosette form of the lotus conceived as flattened and expanded. Blue enamel patera from Cyprus. N. Y. Museum.



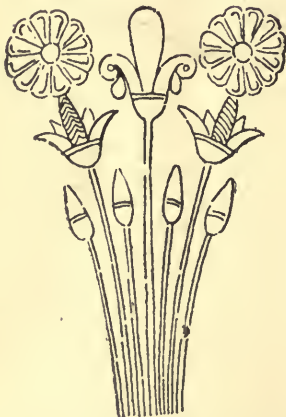
Lotus, bud, and rosette. Detail from a tomb pattern in color.



Lotus bud between two rosettes supporting buds inverted. Detail from tomb patterns in color, including lotuses. Compare page 280, where similar patterns are seen.

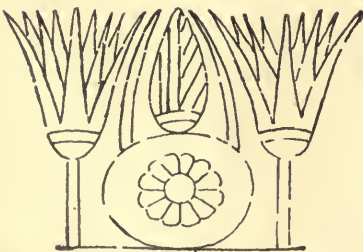


Lotus buds supporting rosettes; voluted lotus supporting an inverted bud (detailed like a feather). Compare the next design as regards the bud. Carved ornament on the temple columns at Esneh.



Lotus flowers supporting rosettes. Volute lotus supporting an inverted bud. Group of four buds. Carved ornament on the temple columns at Esneh.

On this page I have united some details from the tomb patterns with two from temple carvings. More of the tomb patterns are illustrated on page 284. The dilemma in which I have placed my antagonists by this collocation is not one in which I should care to be placed myself. The easiest way for them out of their difficulty is to say nothing, and I presume they will take it; without retracting anything they have said before. The following points are to be considered by students who do not profess to be experts, in deciding for themselves. Not one Egyptologist has antagonized my conclusions on the rosette. Everything which has been said or published by Egyptologists has been favorable to my conclusions about it. The only Egyptologist who is also a botanist (Mr. Percy E. Newberry) anticipated my conclusion about



Rosette supporting a bud, between lotuses. From a tomb pattern in color.



Lotus flower supporting bud inverted. A bud supporting a bud inverted. Rosettes supporting buds. Detail from a tomb pattern in color.



Ovary stigma of the white lotus. From the botanical Plates of the "Napoleon Egypt."

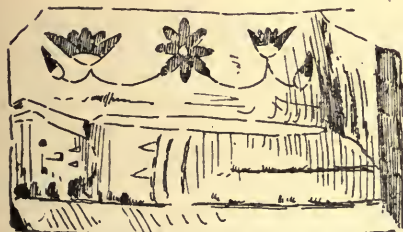


Ivory whorl from Cyprus. New York Museum. Type of the ovary stigma rosette.

the ovary stigma. Now let us consider the deficiencies possibly inherent in a reviewer, not an Egyptologist, who has rejected my conclusions. First, such a person may have reviewed the "Lotus Grammar" without having read it carefully, or without having read it all. Second, he may be an Assyriologist, disliking to concede to Egypt what has so far been conceded to Assyria. Third, he may be a person who has been taught to design rosettes artificially in a kindergarten or public school. Fourth, he may be a person not in touch with Oriental and Egyptian habits of mind; not aware that the idea of ornament purely for the sake of ornament was unfamiliar to an Egyptian; not aware that religious and magical beliefs are the foundations of Egyptian design. I now invite attention to the large design of page 284, representing the type in which a lotus flower is conventionally combined with a lotus leaf, and to the associated patterns of lotus leaves with a cleft over a rounded base.



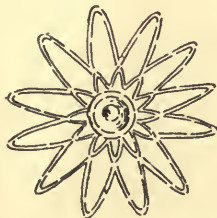
Conventional representation of the ovary stigma pictured on the flower. Cypriote pottery. Compare page 274.



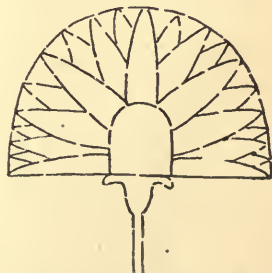
Stone carving from Nankratis. Miniature coffined figure. Rosette between lotuses; type of the expanded flower.



Rosette from an Etruscan bronze cist. Type of the expanded flower.



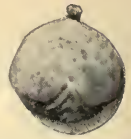
Detail of a bronze door from Susa. Type of the expanded flower.



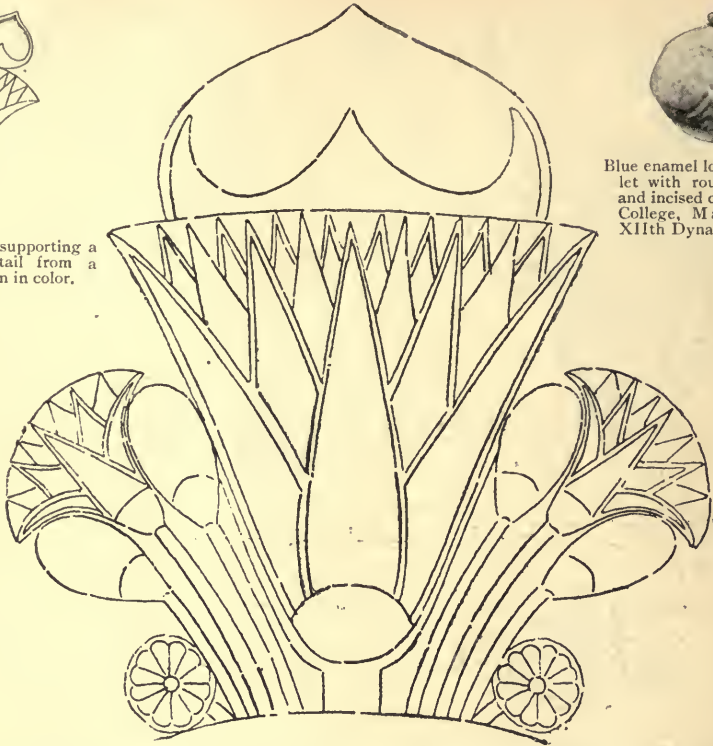
Type of the flabellum or Egyptian standard. Demi-lotus expanded.



Lotus flower supporting a leaf. Detail from a tomb pattern in color.



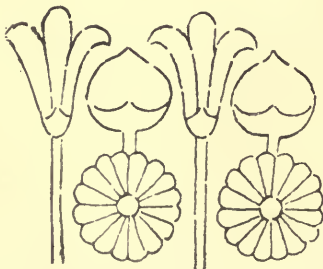
Blue enamel lotus leaf amulet with rounded bottom and incised cleft. Owens College, Manchester. XIIIth Dynasty.



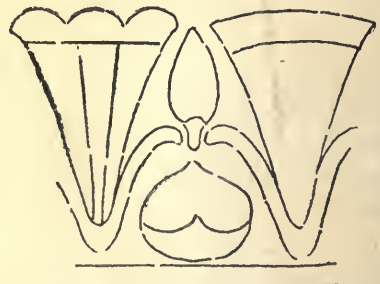
Portion of a toilet tray in wood. (Cover of the tray.) Lotus flower supporting a leaf. Lotus between buds with blunt ends. Rosettes on stalks.

The rounded bottoms of these leaves require an explanation. These patterns in the Egyptian pictures herewith reproduced are not direct copies from lotus leaves but from enamel amulets representing leaves, of which the museums offer many instances. These amulets are rounded at the bottom for convenience of manufacture and to avoid breakage (see cut above).

The cleft of the leaf is represented by an incision over the rounded bottom. It is significant for their magic quality and use that the pictures copy an amulet or magic charm. These amulets are invariably found in the tombs where they were placed for religious reasons. The fact that the rosette itself is a tomb amulet (in enamel) is also to be considered (cut, page 279).



Rosettes supporting lotus leaves between lotuses. Detail from a tomb pattern in color.



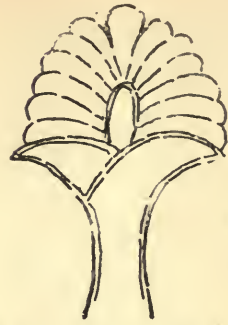
Lotus leaf supporting a bud between lotuses. Detail from a tomb pattern in color.



Type of the bud and rosette. Esneh.



Type of the flower and rosette. Esneh.



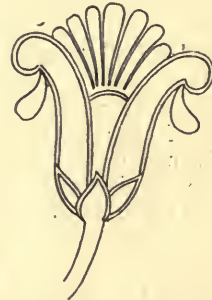
Type of the flower and demi-rosette. From a Cypriote bronze shield.



Type of the voluted flower and rosette. XIXth Dynasty. Ornament on tomb picture of a throne.



Type of the flower and demi-rosette. Detail of a tomb pattern.



Variant of the foregoing type. Detail of a tomb pattern.

IV.

But there is still a form of the Egyptian lotus which obliges us to consider the rosette as a lotus motive. It is that in which a demi-rosette is combined with a lotus, generally of the Ionic or voluted form. The significance of this association is best grasped by recurring to the pattern which shows us the flower supporting a leaf, and the method which inspires the combination is obvious when we recur to the patterns in which buds or flowers support a rosette entire. The demi-rosette combined with the lotus is undoubtedly an abbreviation of the method which represents the entire rosette over the flower or over the Ionic lotus form, both cases being exactly analogous to the case of the flower supporting a bud (p. 282) or the flower supporting a leaf (p. 284).

This Egyptian *lotus palmette* has so far quite escaped the attention of students. In spite of a frequency which is sufficiently obvious *when the evidence has been collated*, even its existence, to say nothing of its explanation, has been entirely ignored. Notwithstanding, it can be dated as a tomb amulet to the Twelfth Dynasty, 3,000 B. C. It is a frequent appearance in tomb frescoes of high antiquity. It appears in stone carvings, according to my personal observation, on the temple walls of Karnak (Nineteenth

Dynasty). As an amulet in necklaces it can be dated to the Nineteenth Dynasty. In Etrusco-Phenician bronzes, as well as in silver and in gold, it is a common ornament of early Mediterranean art. But it has taken time and patience to prove all this. I was obliged to collect all the material myself, and to



Enamel lotus palmette amulet, Owens College, Manchester. Original type of the Greek anthemion; dated about 3000 B. C.



Enamel lotus palmette amulet. Boston Museum.



Enamel lotus palmette amulets. Gizeh Museum. From photograph by Mariette.



Enamel lotus palmette amulet. Boston Museum.



Lotus palmettes in Egyptian gold jewelry.

search for it piecemeal. From the summer of 1887 to the summer of 1890 I could not date the Egyptian lotus palmette earlier than the time of an Etruscan tomb of the seventh or eighth

century B. C. (the Regulini-Galassi tomb), and I could not consequently definitely locate it as an Egyptian type of early date. The palmette amulets known to me in Boston were undated, and so were those of Mariette's photographs from the Boulak (now Gizeh) Museum.

It was not till I visited Manchester in the Spring of 1891 that I could

date the palmette tomb amulets to the Twelfth Dynasty. Other observations as to date of the lotus palmette were mainly subsequent to this. It was Mrs. Professor Huggins, wife of the English astronomer, who first sent me word of the dated type for the Nineteenth Dynasty. It was not till 1891 that I found the motive in stone carving at Karnak. Aside from my own publications the Egyptian lotus palmette and its foreign copies have so far been passed over without mention, and yet they are the exact original of the Greek anthemion, and it was clearly on imported Phœnician and Egyptian metals, bronze, gold and silver, that the Greeks first came in contact with the form. This is apparent from the large Phœnician patterns on bronze in the Etruscan Museum of the Vatican and in the Etruscan collections of Florence, and is especially evident also from similar patterns on Cypriote works in metal (page 287).

Let us now remember that the Greek anthemion has so far been assumed to derive from the Assyrian palmette* (the "honey-suckle" theory scarcely deserves mention), and that this again is supposed to derive from the palm tree, although no one has been able to

* See October Number, 1893.



Gold lotus palmette in Boston Museum. Originally enamelled. Part of a tray handle.



Lotus palmette. Detail of a tomb pattern.



Enamel lotus palmette from a necklace. British Museum. XIXth Dynasty.



Egyptian lotus palmette in bronze repoussé. From an Etruscan tomb.



Three fragments of bronze armor from Tamassos, Cyprus. (Ohnefalsch-Richter.) Egyptian lotus palmettes, to be compared with preceding and following types!

point out one single stage of the evolution of the pattern from a realistic palm, or even a single instance of a repeated pattern of realistic palms. Let us remember, moreover, that the identity of the Ionic capital with the anthemion has been shown by Dr. Clarke,* and that the Ionic capital must now be conceded a lotus derivative. Let us remember, also, that the critic of the *Nation*, the critic of the *London Academy* (Dr. Tylor), and the critic of the *Revue Archéologique* (M. Foucard) have all failed to grasp the logic of my position and the incontestable identity of

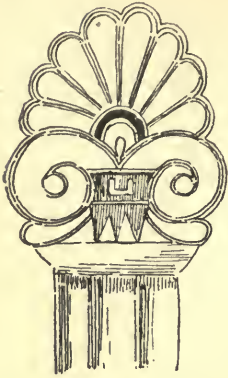
the Egyptian lotus palmette with the anthemion of the Greeks. Here are the patterns side by side. The illustrations speak for themselves (page 288).

We have seen that the normal type of the Greek anthemion has a palmette crown (a demi-rosette), supported by Ionic volutes, and there are instances where we can point to an exact identity in the Greek form as compared with the Egyptian, even reaching to the

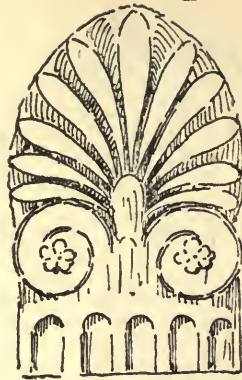
* See October Number, 1893.



Lotus palmettes on ivory plaques from Nineveh, British Museum. Compare the Cypriote examples above, the Egyptian preceding, and the Greek to follow. The plaques from which these details are taken are of Egyptian style and origin.



Syria. Greek period. Detail from a bronze pitcher.



Greek terra-cotta antefix. Italy.



Head of a tombstone. From a Greek vase.

Greek anthemions to be compared with the foregoing lotus palmettes and with examples of the lotus palmette below.



Egyptian lotus palmette. Detail in bronze; from the Regulini-Galassi tomb, Etruria. Compare the Greek anthemions above.



Egyptian lotus palmette. Cypriote stone carving. Compare the Greek anthemions above.



Egyptian lotus palmette. Cypriote bronze relief repeated from preceding page. Compare the Greek anthemions above.

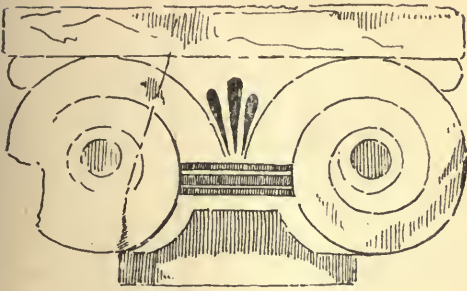
little pendant tabs which so constantly hang in Egyptian art from the inner side of the lotus volutes.

We are now able to return to the Ionic capital discovered in Asia Minor by Dr. Clarke,* to the Assyrian ivories which he rightly considered connecting links with the Assyrian palmette, and to formulate the proof that all these types are Egyptian.

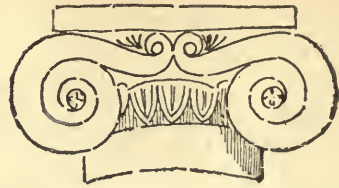
As regards the ivory plaques from Nineveh, which were probably decorations of thrones or furniture, their Egypto-Phenician origin has been always palpable and conceded by specialists, although this fact was unknown to Dr. Clarke. The Egyptian quality of these pieces is obvious in the plaque of the worshiper and the lotus which I have illustrated in my last Paper. These ivory details are consequently Egyptian in style and origin (cuts, page 287).

As regards the Ionic capital published by Dr. Clarke (the capital of Neandrea) it now falls in line with a series of similar ones which were subsequently discovered at Athens. It is an obvious variant of the Egyptian palmette and Greek anthemion, and both are lotus combinations. As regards the Assyrian palmette, its connection with the palm tree has not a vestige of valid authority nor a vestige of evidence in its favor. No palm trees can be shown in Assyrian patterns. By a pattern we understand a picture which is repeated to form a

* October Number, 1893, and page 289, this Paper.

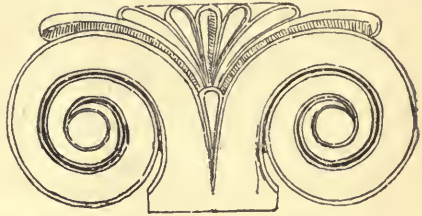


Ionic capital lately found at Athens.



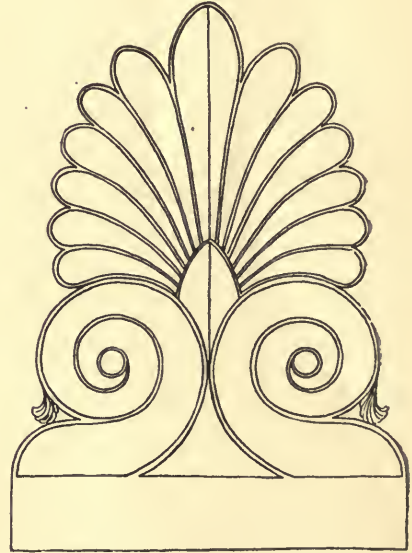
Ionic capital lately found at Athens.

series. The Assyrian palm tree only appears in scenery backgrounds. On seals and cylinders it is isolated. When we remember that in Greek art the palmette and lotus constantly appear united in one repeated pattern it is evident that the advocate of the palm motive is bound to furnish as many instances of repeated realistic palms as I can furnish instances of repeated realistic lotuses. As a matter of fact the advocate of the palm motive cannot furnish one instance of repeated realistic palms. No connecting links between the palm tree and the Assyrian palmette in ornament can be quoted. Its fate is decided by that of the Greek anthemion.



The capital of Neandria ; discovered by Dr. Clarke.

To assert, or to take for granted without assertion, that the trunk of the palm tree was eliminated off-hand, without one single intermediate stage of conventional evolution, is the only recourse for the theory which connects the Assyrian palmette with the palm tree. Such an assertion, unsupported by even one single example in all ancient art, of a repeated pattern of palm trees, cannot satisfy a student who has observed the gradual course of other ornamental evolutions. At the very best, *all that could even be asserted* would be that the Assyrian palmette was independent of the Egyptian palmette and the Greek anthemion; for the identity of these latter forms is incontrovertibly established by me. But the "Grammar of the Palm Tree" will not be written in this generation. The monuments are lacking.



Anthemion of the Parthenon, derived from the lotus palmette. The above Ionic capitals are variants of the anthemion.

A return to the illustrations for Median vases and patterns (pp. 273-277) completes the argument on the one hand and enables us to extend it on the

other to the freer designs of the Greek vases. Where brush work, not carving, was in question, it is evident that native Greek fancy and its independent decorative bent, carried the variations to a much wider extent, in which the remote poles of variation are consequently farther removed, but the unity of origin is still apparent.

I have excluded from this argument the continuous spiral scroll, the guil-

loche, the meander and the so-called ivy-leaf, because the proof is drawn largely from points which must be reserved for want of space; but students of ornament and of architectural ornament are best aware how far the whole field of Greek decorative art has been covered when the motives so far considered and their obvious variants have been admitted to be lotus derivatives. When we add the easily demonstrated egg-and-dart, and the leaf-and-dart motives and the very large number of variants of the trefoil and normal (or obvious) lotus in Greek ornament, I am sure it must be admitted that a new point of departure has been established for the history of Greek art, and consequently of Greek culture. The pattern, if transmitted from one nation to another, argues an object through which it has been transmitted. That object implies commerce, and commerce implies intercourse. The whole history of civilization is at stake in such a demonstration. Above all the theory of a continuity in history is strengthened. In so far as we derive from earlier and simpler elements forms and characteristics which have been supposed native to Greece, in so far we learn the lesson that humanity in general has reached its present conditions by evolution—not by a series of independent disconnected and unassisted efforts.

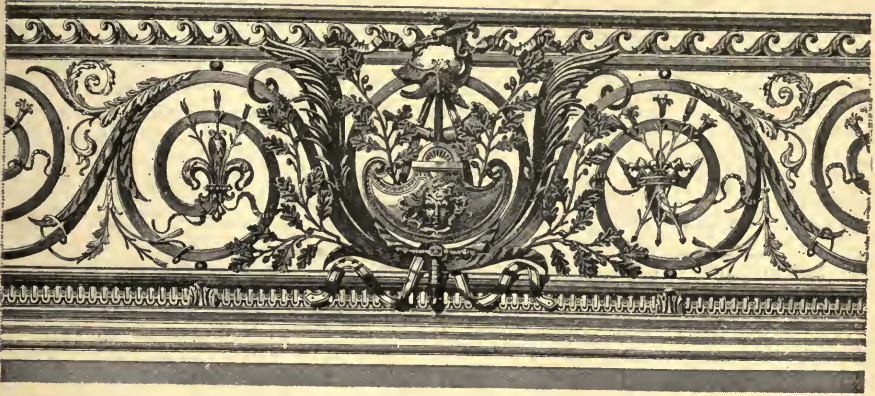
It is my wish to show that Greek conventional patterns go back to a system of magical beliefs centering in Egypt and to prove in doing so, that the history of the system of patterns which we know best through Greek developments, is the history of the rise and diffusion of later civilization from its great development in the valley of the Nile.

I do not minimize the importance of a contemporary Chaldean development, but I assert that in the period of later and borrowed Chaldean culture represented by Assyrian history a wave of culture influences from Egypt pene-

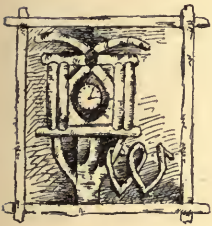
trated Mesopotamia, carrying its own patterns with it, and supplanting what may have previously existed, just as Italian Renaissance culture and patterns supplanted and displaced the Gothic culture and Gothic patterns of Northern Europe in the sixteenth century.

It must be admitted that the interest attaching to these observations is, in the first place, the interest of the historian, of the anthropologist, and of the partisan or advocate of Evolution. When it gradually dawned on me that all the wealth of Greek decorative art, so-called, had its origin in Egyptian solar symbolism, I saw that one more link could be forged in the chain which the general theory of Evolution is now constructing for the history of the human race. To attach the origins of painting and sculpture to fetich worship or to a belief in magic is to simplify history and to connect isolated facts in one more easily comprehended whole. To derive supposed purely decorative patterns from pictures which also had a magical significance and use is to not only to simplify history but is also to make the patterns interesting to hundreds or thousands who otherwise would never notice them. Moreover, archæologists and students of Greek antiquity have been peculiarly grudging and backward in admitting a relationship between Greek culture and Egyptian, and they have been peculiarly forward in conceding to Assyria a credit which does not belong to her, excepting, it may be, to some degree, in a secondary sense. That Assyrian patterns reacted on the Greek may be conceded; but if they were derived from Egypt originally, then the credit belongs there originally. The Renaissance art of England came there from the Netherlands, from France and from Spain, but the credit for that art belongs to Italy. The relations of Assyria to Egypt were like those of Renaissance France and Spain to Renaissance Italy.

Wm. H. Goodyear.



LAST WORDS ABOUT THE WORLD'S FAIR.



H E T H E R the cloud-capped towers and the gorgeous palaces of the World's Fair are to dissolve, now that the substantial pageant of the Fair itself has faded, and to leave not a rack behind, is a question that is reported to agitate Chicago. There is much to be said, doubtless, on both sides of it. While it is still unsettled seems to be a good time to consider the architecture which it is proposed to preserve for yet awhile longer, in order to determine, so far as may be, what influence the display at Chicago is likely to have upon the development of American architecture, and how far that influence is likely to be good and how far to be bad. That it is likely to be in any degree bad is a proposition that may be startling and seem ungracious, but there is no reason why it should. Certainly to question the unmixed beneficence of its influence is not to pass the least criticism upon the architects, the brilliant success of whose labors for their own temporary and spectacular purpose has been admitted and admired by all the world. The very

brilliancy of this success may constitute a danger in the imitation which it induces, if it induce any. Absolutely without influence such a display can hardly be. The promiscuous practitioner of architecture in America, or in any other modern country, is not of an analytical turn of mind. When things please him, he is not apt to inquire into the reasons why they please him, and to act accordingly. He is more apt to reproduce them as he finds them, so far as this is mechanically possible. For this process our time affords facilities unprecedented in history. Photographs are available of everything striking or memorable that has been built in the world, and that survives even in ruins. The "wander-years" of the young architect are not so necessary to him as they used to be. The necessity of travel, as part of a professional apprenticeship, had its advantages. On the spot one can see what he cannot see so well in photographs and sometimes cannot see at all, how much of its effect a building may owe to circumstances more or less adventitious to its design—to situation, to scale, to material, to color. The photograph enables him merely to reproduce what he admires, and increases

the desirableness that he should admire rightly; that he should admire with discrimination; that he should analyze what he admires far enough to find out what it is that he admires it for, and what it is that may be useful to him in his own work. To teach this is a large part of professional education. An architect who learns this will not be misled by the success of the buildings of the World's Fair into reproducing or imitating them, because he will know too well what are the necessary conditions of their effectiveness, and that these conditions cannot be reproduced except in another World's Fair, and not literally even there. Men bring not back the mastodon, nor we those times. It is, however, the architects who do not know these things with whom we have so largely to reckon, and it is upon such architects that the buildings in Jackson Park are more likely to impose themselves as models for more or less direct imitation in the solution of problems more usual. The results of such an imitation can hardly fail to be pernicious.

Doubtless the influence of the most admired group of buildings ever erected in this country, the public buildings at Washington not excepted, must be great. What it is likely to be has been expressed by Mr. Burnham, the Director of Works of the Columbian Exposition, in some remarks, published in a Chicago newspaper, which crystallize into a lucid and specific form a general hazy expectation, and which may well serve us for a text:

"The influence of the Exposition on architecture will be to inspire a reversion toward the pure ideal of the ancients. We have been in an inventive period, and have had rather contempt for the classics. Men evolved new ideas and imagined they could start a new school without much reference to the past. But action and reaction are equal, and the exterior and obvious result will be that men will strive to do classic architecture. In this effort there will be many failures. It requires long and fine training to design on classic lines. The simpler the expression of true art the more difficult it is to obtain.

"The intellectual reflex of the Exposition will be shown in a demand for better architecture, and designers will be obliged to abandon their incoherent originalities and study the ancient masters of building. There is shown so much of fine architecture here that people have seen and appreciated this. It will be unavailing here-

after to say that great classic forms are undesirable. The people have the vision before them here, and words cannot efface it."

Doubtless the architecture of the Exposition will inspire a great many classic buildings, which will be better or worse done according to the training of the designers, but it is not likely that any of these will even dimly recall, and quite impossible that they should equal the architectural triumph of the Fair. The influence of the Exposition, so far as it leads to direct imitation, seems to us an unhopeful rather than a hopeful sign, not a promise so much as a threat. Such an imitation will so ignore the conditions that have made the architectural success of the Fair that it is worth while to try to discern and to state these conditions, and that is the purpose of this paper.

In the first place the success is first of all a success of unity, a triumph of *ensemble*. The whole is better than any of its parts and greater than all its parts, and its effect is one and indivisible. We are speaking now of the Court of Honor, which alone it is proposed to preserve, and which forms an architectural whole. The proposal to remove the largest building of the group, that of Manufactures, and to set it up by itself in a permanent form on the lake front in Chicago, though the proposition was not made by an architect, is an excellent illustration how easy it is to mistake the significance of the architecture and the causes of its success. It is a masterpiece of misappreciation. The landscape plan of the Fair, with the great basin, open at one end to the lake and cut midway by canals, may be said to have generated the architecture of the Court of Honor. Any group of educated architects who had assembled to consider the problem presented by the plan must have taken much the same course that was in fact taken. The solution of the problem presented by the plan was in outline given by the plan. That the treatment of the border of this symmetrical basin should be symmetrical, that the confronting buildings should balance each other, these were requirements obviously in the interest of unity and a general unity was obviously

the result to be sought and the best result that could be attained. The conditions of this unity were all that it was necessary to stipulate for. Variety enough had been secured by the selection of an individual designer for each of the great buildings, and the danger was that this variety would be excessive, that it would degenerate into a miscellany. Against this danger it was necessary to guard if the buildings should appear as the work of collaborators rather than of competitors, and it was guarded against by two very simple but quite sufficient conditions. One was that there should be a uniform cornice-line of sixty feet, the other that the architecture should be classic. The first requirement, keeping a virtually continuous sky-line all around the Court of Honor, and preventing that line from becoming an irregular serration, was so plainly necessary that it is not necessary to spend any words in justifying it. The second may seem more disputable, but in reality it was almost as much a matter of course as the first. Uniformity in size is no more necessary to unity than uniformity in treatment, and classic architecture was more eligible than any other for many tolerably obvious reasons. There are perhaps no effects attained in the exhibition that could not have been attained in other architecture. The obvious effect of the "magnitude, succession, and uniformity," which the æstheticians describe as the conditions of the "artificial infinite" has been sought and attained in the treatment of the great buildings. Interminable, or for æsthetic purposes, infinite series is the source of the impressiveness of the largest of the buildings, of the long colonnades of Machinery Hall, and the still longer arcades of the Manufactures building. The unusual, in the case of the latter building the unprecedented, length at the disposal of the designer made this the most easy and obvious method of making a great impression. That it is the most easy and obvious is proved by the fact that it was the first, nor has it ever been carried further than in the earliest examples, in the colonnades of Karnac and Thebes that

were the very beginnings of monumental architecture. These pillared avenues exhibit the effect of repetition as completely as it is exhibited in the exterior colonnades of the Greeks—

Or where, from Pluto's garden Palatine
Mulciber's columns gleam in far piazzan line.

This effect impressed the first Egyptian builders as it impressed the Greek and Roman builders, as it impressed Keats, whose impression of it we have just transcribed; as it impressed Turner, whose dreams of classic architecture were made real in Jackson Park.

As we say, this is an effect by no means peculiar to classic architecture. It may be found in the flank of a Gothic cathedral as well as in the flank of a peripteral Greek temple. One of the most familiar illustrations of it is the front of the cloth-hall of Ypres, and the most conspicuous illustration of it in the World's Fair is the side of the Manufactures building. As each of these examples proves, it is an effect that does not depend upon classic forms and may be attained in an arcade as well as in a colonnade, since the Manufactures building, alone of all the great buildings, is astylar, and, indeed, is scarcely designated as classic except by the pillared pavilions at the angles and the reproduction of the arch of Constantine at the centre of each front.

Nevertheless, the choice of classic architecture was almost as distinctly imposed upon the associated architects as the choice of a uniform cornice line. In the first place, the study of classic architecture is a usual, almost an invariable part of the professional training of the architects of our time. It is an indispensable part, wherever that training is administered academically, and most of all at Paris, of which the influence upon our own architecture is manifestly increasing and is at present dominant. Most of the architects of the World's Fair are of Parisian training, and those of them who are not have felt the influence of that contemporary school of architecture which is most highly organized and possesses the longest and the most powerful tradition. Presumably, all of them were

familiar with the decorative use of "the orders" and knew what a module meant. What most of them had already practiced in academic exercises and studies, they were now for the first time permitted to project into actual execution. Nobody can fail to understand the comment of a distinguished French painter, made, possibly, in a satirical spirit: "On me dit que les bâtimens à Chicago sont des anciens concours des Beaux Arts." This is in fact the reflection that several of the buildings are calculated to excite, that their designs are the relics of student-competitions, while at least one such relic is alleged to have been built in Jackson Park.

That would be one good reason for the adoption of a given style—that all the persons concerned knew how to work in it. Another is that the classic forms, although originally developed from the conditions of masonic structure, have long since, and perhaps ever since they became "orders," been losing touch with their origin, until now they have become simply forms, which can be used without a suggestion of any real structure or any particular material. We know them in wood and metal, as well as in stone. They may be used, as they are used in Jackson Park, as a decorative envelope of any construction whatever without exciting in most observers any sense of incongruity, much less any sense of meanness such as is at once aroused by the sight of "carpenter's Gothic." A four-foot column, apparently of marble, may have aroused such a sentiment during the process of construction, when it might have been seen without a base and supported upon little sticks, with its apparent weight thus emphatically denied. Such a sentiment may have been aroused again in the closing days of the Fair, when it was no longer thought necessary to repair defects as fast as they showed themselves, and where the apparent masonry disclosed in places the lath-backing. But when the buildings were ready for the public no such incongruity was forced upon the observer, as it would have been forced upon him if the forms that were used had been such as are still asso-

ciated with the structure that gave rise to them. The alternative to the use of classic architecture was the development in a few months of an architecture of plaster, or "staff." For this there are no precedents completely available in the world, while the world is full of precedents for the employment of the orders, and precedents which do not imply that the orders are real and efficient constructions, as indeed they have never been since the Romans began to use columnar architecture as the decoration of an arched construction.

It is not to be supposed for a moment that the architects of the Fair would have attained anything like the success they did attain, if instead of working in a style with which all of them were presumably familiar, they had undertaken the Herculean task of creating a style out of these novel conditions. In fact the architects of the Court of Honor might "point with pride" to the result of such efforts as were made in that direction by other architects as a sufficient justification for their own course, if such a justification were needed.

The landscape-plan is the key to the pictorial success of the Fair as a whole, and, as we say it generated the architecture of the watercourt by supplying indications which sensitive architects had no choice but to follow. In no point was the skill of Mr. Olmsted and his associate more conspicuous than in the transition from the symmetrical and stately treatment of the basin to the irregular winding of the lagoon. As the basin indicated a bordering of formal and symmetrical architecture so the lagoon indicated and invited a picturesque and irregular architecture. Of the associated architects, those who most conspicuously availed themselves of this invitation were the designers of the Fisheries and of the Transportation building. The success of the former is not disputed nor disputable. The plan was determined by the requirements of the building and worked out very naturally into the central mass, the connecting arcades and the terminal pavilions, of which the form suggested the treatment of Romanesque baptisteries, and

may very possibly have determined the style of the building. There was ample scope left for the inventiveness of the designer in the detail conventionalized so happily and successfully from marine motives, and the success of this detail of itself vindicates the author's choice of a style and passes a conclusive criticism upon the choice of classic architecture for his purpose. Not only would his spirited and ingenious detail have been sacrificed, but the general composition of his building could not have been attained by the use of classic forms without doing violence both to the letter and to the spirit of them. But that he was right for his purpose proves all the more that the architects of the Court of Honor were right for theirs. One can imagine, perhaps, that the Court of Honor might have been lined with buildings in the style of the Fisheries building, and yet not have lost the unity it now possesses provided all the buildings had been done by the same designer and he had been unlimited in the time required to meditate his design. But one cannot imagine that an equal effect of unity could have been gained by a number of architects, working under pressure, if they had chosen a free and romantic instead of a formal and classic style.

The Transportation building bears still stronger testimony to the same effect, since, while everybody finds it interesting and suggestive, nobody ventures to say that it is distinctly and, on the whole, successful. It is the most ambitious of all the great buildings, for it is nothing less than an attempt to create a plaster architecture. Even the Fisheries building, free as it is in design, bears no reference in its design to its material. It is not a building of staff but a simulacrum of a building in masonry. In the Transportation building alone has it been undertaken architecturally to treat the material of which all the buildings are composed. To comprehend the ambitiousness of the attempt one has only to bear in mind that there is no such thing as an exterior architecture of plaster in the world. The "half-timbered" constructions of Europe and the adobe of

our own continent do not carry us very far. The Saracens, indeed, attained an interior architecture of plaster, and this architecture comprises all the precedents that were available for the architects of the Transportation building. The outsides of those Saracenic buildings of which the interiors are most admired are not only of masonry, but some of them are little more than dead walls. One cannot fail to respect the courage and sincerity with which the architects of the Transportation building tackled their task, even though he find in the result a justification for the architects who have forborne the attempt. It was here a perfectly legitimate attempt, since the Transportation building does not form part of an architectural group, and a separate and distinctive treatment was not a grievance to the spectator, nor to the architects of any other buildings, though it was rather curiously resented by some of these. That it is a plaster building is entirely evident, as evident in a photograph as in the fact. It cannot be called an "incoherent originality," for its departures from convention are evidently the result of a studious analysis. A plaster wall is especially in need of protection by an ample cornice, and the ample cornice is provided. But the mouldings that are appropriate to masonry are meaningless in plaster, and the wall is a dead expanse, that would be entirely devoid of interest if left alone. Whether it could not profitably have been enlivened in the Saracenic manner by patterns stamped in relief—a treatment especially adapted to the material—is a question that the designers might perhaps profitably have entertained. But at any rate they determined to enliven the expanse only with color, and the color treatment is not successful. The most pretentious and perhaps the most successful feature of it—the famous Golden Doorway—suffers from being an isolated fragment, entirely unrelated to the general scheme, and its admirable detail does not for this reason excite the admiration it deserves. The moulded ornament in this, however, is less successful than the moulded ornament elsewhere in the

building, which is charged with an astonishing spirit and inventiveness and which is, moreover, unmistakably moulded ornament, neither imitative of nor imitable by the work of the chisel. There is certainly no better detail than this in the Fair grounds, but it also loses much of the effect to which it is entitled by its surroundings, and especially by its association with the queerest sculpture that is to be seen on the grounds, and that is saying a great deal. The comparative failure of the color-decoration is very pardonable in so difficult and so unprecedented an essay, but it entails the comparative failure of the design of which it is an integral part, quite independently of other defects in that design.

But, perhaps, the strongest proof of the good judgment of the architects of the Court of Honor is that the effect of unity is not disturbed by those buildings that are in themselves the least successful. "Classic" is a very comprehensive term, if one include under it, as one must, everything that owes its origin to the Greeks, from their own work to the latest developments of the Renaissance, and yet a certain family-likeness is traceable in all these things. The trail of "the orders" is over them all. There is indeed, and rather curiously, no example of Grecian architecture in the Court of Honor. Nobody would hesitate to describe the Art building at the other end of the lagoon, as an example of a Greek revival, in spite of its arches. The expansion of the Erechtheum into a vast building has been managed, as everybody agrees, with great skill and with a result that is Grecian both in letter and in spirit. The most truly Grecian in spirit, perhaps, of the buildings of the Court of Honor is the Agricultural building. Though its Hellenism appears only in the subtlety and delicacy of the design, and is of the spirit and not at all of the letter, its designer is entitled to some of the praise which Swinburne bestowed upon Landor—

And through the trumpet of a child of Rome
Rang the pure music of the flutes of Greece.

There have been critics who insist that, comprehensive as it is, the epithet "classic" is not comprehensive enough

to take in all the architecture of the Court of Honor. One of these critics, a Frenchman, found himself unable to reconcile the more fantastic erections with the rest of the architecture of the Court. He referred, it is to be presumed, to the steeples of Machinery Hall, and the belvederes of the building of Electricity, and he failed to perceive the motive of the introduction, which apparently was to give the buildings as much "Americanism" or Columbianism as was compatible with classicism by borrowing suggestions from the Spanish Renaissance in which were erected the earliest of the European buildings of the new continent. The incongruity is obvious enough, for nothing could be less like classic severity than any suspicion of *bizarrerie*, and *bizarrerie* is characteristic of the exuberance of the Spanish builders of the Renaissance. Perhaps it becomes even rather violent in the contrast between the severe colonnades and the fantastic steeples of Machinery Hall, and one may reasonably wish that the steeples had been omitted even at the sacrifice of the Columbianism. If the incongruity be less apparent in the Electricity building, that is perhaps because that edifice had less character to be disturbed or contradicted, and that one cannot so readily designate any particular feature that prevents it from attaining style, either in the academic or in the æsthetic sense of the term. The Mining building is a much franker example of modern Americanism, franker even than the treatment of the Manufactures' building, although the classicism of that is visible only in the monumental entrances and pavilions. No sensitive beholder, with the greatest willingness in the world to admire, could succeed in admiring the Mining building if it stood alone, and he would have his difficulties with the Electrical building, in spite of such features as the double apse at the north end and the large half-domed entrance at the south. But the great advantage of adopting a uniform treatment, even when the uniformity is so very general as is denoted by the term classic, and even when the term has been so loosely

interpreted, as it has been by some of the associated designers in Jackson Park, is that the less successful designs do not hinder an appreciation of the more successful, nor disturb the general sense of unity in an extensive scheme, which is so much more valuable and impressive than the merits of the best of the designs taken singly. Our enjoyment of the Administration building or of the Agricultural building might be very seriously marred by the juxtaposition of buildings equally good unrelated in scale or in manner, while it is not marred by the actual surroundings. The scheme, of a group of monumental buildings, does not depend for its effectiveness upon the equal excellence, or even, as we cannot help seeing, upon the positive excellence of all the parts that go to make it up. It is a scheme and it has been carried out not only in the huge buildings of unequal merit that we have been considering, but in all the accessories of a monumental composition. This has been done with noteworthy skill and discretion in the peristyle and its flanking buildings, and in the terminal station, any one of which, if done without reference to the rest, under the inspiration of what Mr. Burnham calls an "incoherent originality" or even a coherent originality might have gone for to spoil the whole. It has been carried out also in the minor details that are scarcely noticeable in their places, but that would have been painfully noticeable if they had been out of place, in the plazas and the bridges and the promenades that are the accessories of a pompous architectural composition. It has been carried out too in the sculptural adornment, not only of the building but of the grounds, while in the sculpture it is even more evident to the wayfaring man than in the architecture that the effect of the whole does not depend upon the excellence of the parts, and that sculpture that will not bear an analytic inspection may contribute, almost as effectively as sculpture that will, to the decoration of a great pleasance and the entertainment of a holiday crowd. The condition upon which the effect-

iveness of the whole depends is that there shall be a whole, that there shall be a general plan to the execution of which every architect and every sculptor and every decorator concerned shall contribute. That condition has been fulfilled in the architecture of the Exposition, at least in the architecture of the "Court of Honor," which is what everybody means when he speaks of the architecture of the Exposition, and it is by the fulfillment of this condition that the success of the Fair has been attained. That success is, first of all, a success of unity.

II.

Next after unity, as a source and explanation of the unique impression made by the World's Fair buildings, comes magnitude. It may even be questioned whether it should not come first in an endeavor to account for that impression. If it be put second, it is only because unity, from an artistic point of view, is an achievement, while magnitude from that point of view, is merely an advantage. The buildings are impressive by their size, and this impressiveness is enhanced by their number. Mere bigness is the easiest, speaking æsthetically, though practically it may be the most difficult to attain, of all the means to an effect. It constitutes an opportunity, and one's judgment upon the result, as a work of art, depends upon the skill with which the opportunity has been embraced and employed. But bigness tells all the same, and the critical observer can no more emancipate himself from the effect of it than the uncritical, though he is the better able to allow for it. In this country mere bigness counts for more than anywhere else, and in Chicago, the citadel of the superlative degree, it counts for more, perhaps, than it counts for elsewhere in this country. To say of anything that it is the "greatest" thing of its kind in the world is a very favorite form of advertisement in Chicago. One cannot escape hearing it and seeing it there a dozen times a day, nor from noting the concomitant assumption that the biggest is the best. This assumption was

very naively made by the enthusiastic citizen whose proposition we have already noted to occupy the Lake Front, which is one of the few features of the city of Chicago and one of the most attractive of them, with a full-sized reproduction of the Manufactures building. If one ask why Manufactures building, the civic patriot has his answer ready: "Because it is the biggest thing on earth," as indeed it is, having not much less than twice the area of the Great Pyramid, the type of erections that are effective by sheer magnitude. The Great Pyramid appeals to the imagination by its antiquity and its mystery as well as to the senses by its magnitude, but it would be impossible to erect anything whatever of the size of the Manufactures building or even of the Great Pyramid that would not forbid apathy in its presence. A pile of barrels so big as that would strike the spectator. It would be a monument of human labor, even though the labor had been misdirected, and the evidence of crude labor, if it be on a large enough scale, is effective as well as the evidence of artistic handicraft, though of course neither in the same kind nor in the same degree. "These huge structures and pyramidal immensities" would make their appeal successfully though they were merely huge and immense brute masses quite innocent of art. The art that is shown in this respect is in the development of the magnitude, the carrying further of an inherent and necessary effect and the leading of the spectator to an appreciation of the magnitude by devices that magnify and intensify the impression it makes. That is to say, the art consists in giving it scale. It is a final censure upon the treatment of a piece of architecture which aims at overpowering the spectator by its size that it does not look its size; as is the current and accepted criticism upon St. Peter's. To quote the æstheticians again, succession and uniformity are as essential as magnitude to the "artificial infinite," and it is necessary to it that there should be a repetition, an interminable repetition of the unit, the incessant application of the module. It is an effect quite independent of the

style. The bay of a cathedral may furnish the unit as well as the order of a Grecian temple. But it is an effect that depends very greatly upon magnitude. The example of it we have already cited from Gothic architecture, the cloth-hall of Ypres, is perhaps the most striking that mediæval architecture supplies, seeing that the design is a repetition of the unit, in this case a pointed arch, from end to end of an otherwise unbroken expanse of wall 440 feet long. But this extent, impressive as it is, and heightened as its impressiveness is by the skill of the designer, becomes insignificant when it is compared with the flank of the Manufactures building, which is nearly four times as long as the front of Ypres, and of which the arcade in either wing must be quite half as long again as the Belgian arcade. Either of the colonnaded wings of Machinery Hall, of which, by the way, the treatment is almost literally identical with that of the wings of the Capitol at Washington, must be nearly as long as the whole front of Ypres.

The devices by which these inordinate dimensions are brought home to the comprehension of the spectator are various, but they consist, in most cases, at least of a plinth and a parapet in which the height of a man is recalled, as in an architectural drawing the draughtsman puts in a human figure "to give the scale." While the Fair was in progress the moving crowds supplied the scale, but this was given also by all the architectural appurtenances, the parapets of the bridges and the railings of the wharves, so that the magnitude of the buildings was everywhere forced upon the sense. To give scale is also the chief contribution to the effect of a general survey that is made by the accessory and decorative sculpture of the buildings and of the grounds. In this respect, and without reference to their merits strictly as sculpture, the statuary that surmounts the piers and cupolas of the Agricultural building and that with which the angles of the Administration building bristle are particularly fortunate. On the other hand the figures of the peristyle were unfortunate, being too big and insistent for

their architectural function of mere finials.

It would be pleasant to consider in detail the excellencies of the buildings that are most admirable, and the sources of their effectiveness, and to consider, also, the causes of the shortcomings of the less successful buildings. But the success of the architectural group, as a whole, is a success not disturbed by the shortcomings and the consequent success of the associated architects from their own point of view and for their special purpose, is a matter upon which we are all agreed. It is only with the influence of what has been done in Jackson Park upon the architecture of the country that we are now concerned; with the suitability of it for general reproduction or imitation, and with the results that are likely to follow that process, if pursued in the customary manner of the American architect. The danger is that that designer, failing to analyze the sources of the success of the Fair will miss the point. The most obvious way in which he can miss it is by expecting a reproduction of the success of one of the big buildings by reproducing it in a building of ordinary dimensions. It is necessary, if he is to avoid this, that he should bear in mind how much of the effect of one of the big buildings comes from its very bigness, and would disappear from a reproduction in miniature.

III.

There is still another cause for the success of the World's Fair buildings, a cause that contributes more to the effect of them, perhaps, than both the causes we have already set down put together. It is this which at once most completely justifies the architects of the Exposition in the course they have adopted, and goes furthest to render the results of that course ineligible for reproduction or for imitation in the solution of the more ordinary problems of the American architect. The success of the architecture at the World's Fair is not only a success of unity, and a success of magnitude. It is also and very eminently a success of illusion.

What the World's Fair buildings

have first of all to tell us, and what they tell equally to a casual glimpse and to a prolonged survey is that they are examples not of work-a-day building, but of holiday building, that the purpose of their erection is festal and temporary, in a word that the display is a display and a triumph of occasional architecture. As Mr. Burnham well described it, it is a "vision" of beauty that he and his co-workers have presented to us, and the description implies, what our recollections confirm, that it is an illusion that has here been provided for our delight. It was the task of the architects to provide the stage-setting for an unexampled spectacle. They have realized in plaster that gives us the illusion of monumental masonry a painter's dream of Roman architecture. In Turner's fantasias we have its prototype much more nearly than in any actual erection that has ever been seen in the world before. It is the province and privilege of the painter to see visions and of the poet to dream dreams. They are unhampered by material considerations of structure of material or of cost. They can imagine unrealizable centaurs and dragons, gorgons, hydras and chimeras dire and in turn affect our imaginations with these. The question how the centaur can subsist, with two sets of respiratory and digestive organs superposed, does not disturb them nor us while we remain under their spell. To quarrel with the incredibilities they ask us to accept is to show not only a hopelessly prosaic but a hopelessly pedantic spirit. One might as well quarrel with the scene-painter because his scenery is not what it purports to be, and accuse him of deceit so far as his illusion is successful instead of being grateful to him that he literally does, for the moment, "illude" and play upon our credulity.

"Pictoribus atque poetis
Quidlibet andendi semper fuit aequa potestas;
Scimus et hanc veniam petinusque damusque
vicissim."

The poet's or the painter's spell or the spell of the architect of an "unsubstantial pageant" cannot be wrought upon the spectator who refuses to

take the wonder-worker's point of view. and instead of yielding himself to the influence of the spectacle insists upon analyzing its parts and exposing its incongruities. There would be a want of sense as well as a want of imagination in pursuing this course and criticising a passing show as a permanent and serious piece of building.

It is the part of the spectator who would derive the utmost pleasure from the spectacle to ignore the little incongruities that he might detect, and loyally to assist the scenic artist in his make-believe. Nay, the consciousness of illusion is a part of the pleasure of the illusion. It is not a diminution but an increase of our delight to know that the cloud-capped towers, the gorgeous palaces, and the solemn temples, the images of which scenic art summons before us are in sober reality "the baseless fabric of a vision."

Such a pleasure and such an illusion the architects of Jackson Park have given us. The White City is the most integral, the most extensive, the most illusive piece of scenic architecture that has ever been seen. That is praise enough for its builders, without demanding for them the further praise of having made a useful and important contribution to the development of the architecture of the present, to the preparation of the architecture of the future. This is a praise that is not merely irrelevant to the praise they have won, but incompatible with it. It is essential to the illusion of a fairy city that it should not be an American city of the nineteenth century. It is a seaport on the coast of Bohemia, it is the capital of No Man's Land. It is what you will, so long as you will not take it for an American city of the nineteenth century, nor its architecture for the actual or the possible or even the ideal architecture of such a city. To fall into this confusion was to lose a great part of its charm, that part which consisted in the illusion that the White City was ten thousand miles and a thousand years away from the City of Chicago, and in oblivion of the reality that the two were contiguous and contemporaneous. Those of us who believe that architecture is the

correlation of structure and function, that if it is to be real and living and progressive, its forms must be the results of material and construction, sometimes find ourselves reproached with our admiration for these palaces in which this belief is so conspicuously ignored and set at naught. But there is no inconsistency in entertaining at the same time a hearty admiration for the Fair and its builders and the hope of an architecture which in form and detail shall be so widely different from it as superficially to have nothing in common with it. Arcadian architecture is one thing and American architecture is another. The value of unity, the value of magnitude are common to the two, but for the value of illusion in the one there must be substituted in the other, if it is to come to its fruition, the value of reality. We may applaud the skill of the stage-carpenter who gives us a theatric illusion without the slightest impulse to tell the common carpenter of every day to go and do likewise. In the world of dreams, illusion is all that we require. In the world of facts, illusion may be merely sham, and it suffices to say of what is presented for our acceptance that it is "not so." One can imagine what would be the result of an indiscriminate admiration of the buildings of the World's Fair. Nay, we do not need to resort to imagination, for have we not had our classic revival already? The prostylar villa in white pine remains to testify to it not less than the crop of domed state houses that sprang up in reproduction or in imitation of the Capitol at Washington. It is true that these were ill-done, even in the comparison with their immediate prototype, not to speak of their ultimate originals. As Mr. Burnham says, it requires long and fine training to design on classic lines, and this truth is impressed upon us when we come to make comparisons among the buildings even of the Fair itself. But granted the training, would a sensitive person desire to see even the best of these buildings reproduced for the adornment of an American town, apart from the setting that in Jackson Park so enhances the merits of the best and

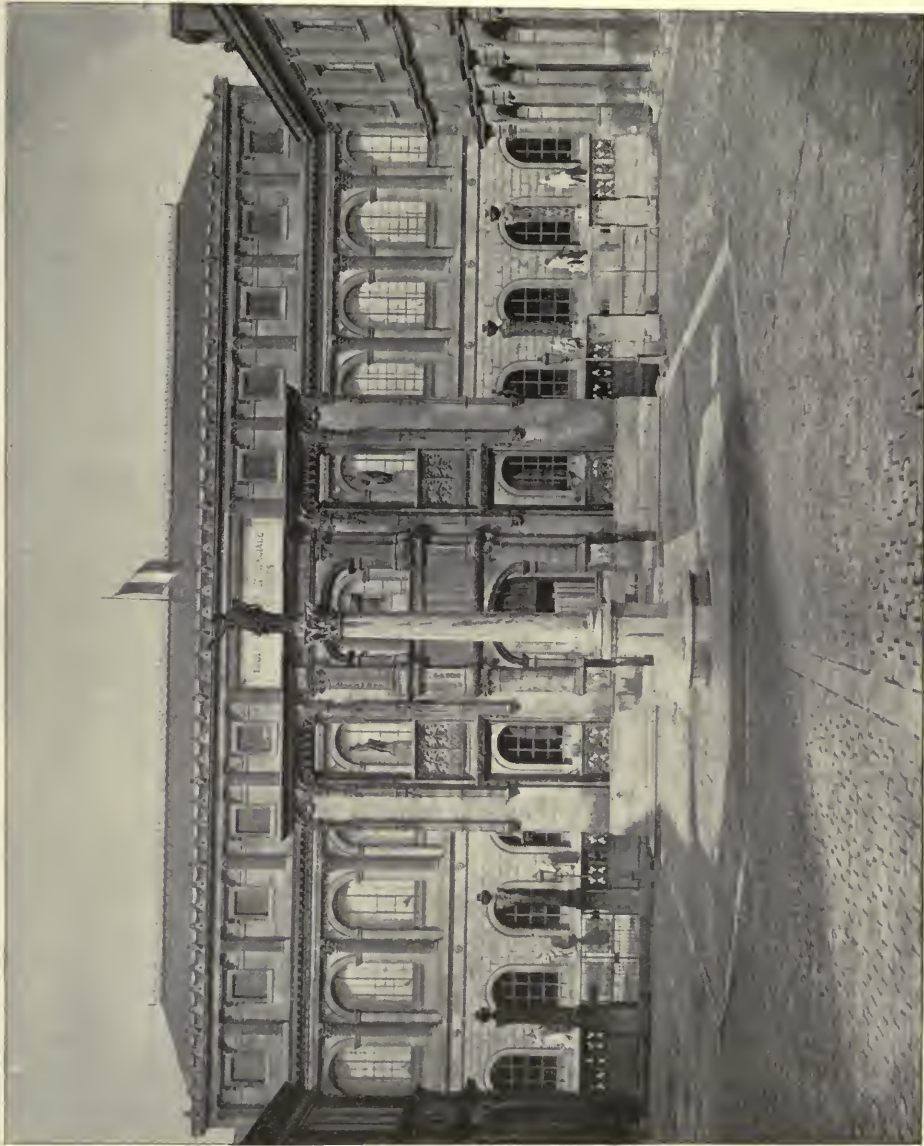
redeems the defects of the worst? What would it be without the unity by which its greatest value is the contribution it makes to the total effect? Even if this could be in part retained by the reproduction of a fragment of the group, how ineffectual it would be on the scale of our ordinary building or even on a scale considerably larger than the ordinary building. Who that has seen the originals would care to have his recollection disturbed, under pretense of having it revived, by a miniature plaza, with a little Administration building at one end, flanked by a little Manufactures building and a little Machinery Hall? Above all, who would care to have the buildings reproduced without the atmosphere of illusion that enveloped them at Jackson Park and vulgarized by being brought into the light of common day? "This same truth is a naked and open daylight that doth not show the masques and mummeries and triumphs of the world half so stately and daintily as candle lights."

It was a common remark among visitors who saw the Fair for the first time that nothing they had read or seen pictured had given them an idea of it, or prepared them for what they

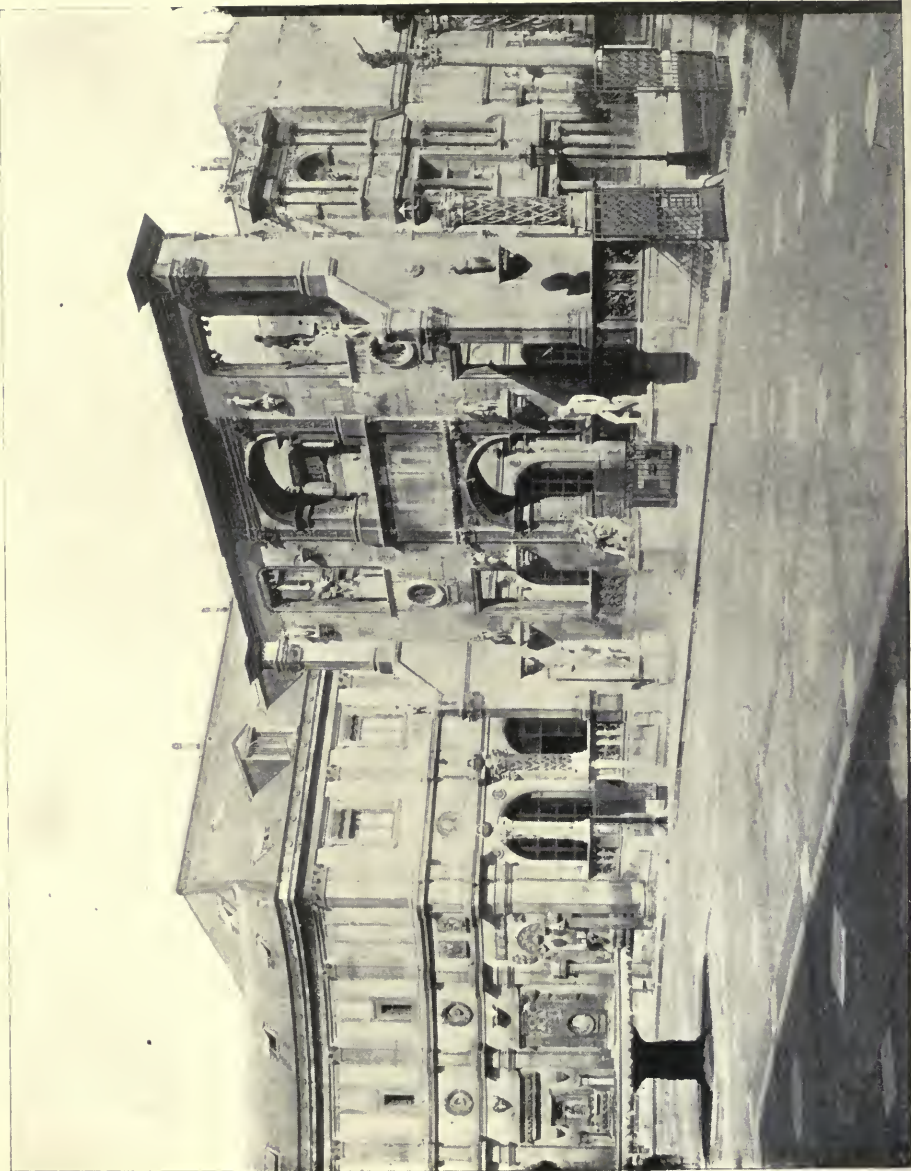
saw. The impression thus expressed is the impression we have been trying to analyze, of which the sources seem to be unity, magnitude and illusion, and the greatest of these is illusion. To reproduce or to imitate the buildings deprived of these irreproducible and inimitable advantages, would be an impossible task, and if it were possible it would not be desirable. For the art of architecture is not to produce illusions or imitations, but realities, organisms like those of nature. It is in the "naked and open daylight" that our architects must work, and they can only be diverted from their task of production by reproduction. It is not theirs to realize the dreams of painters, but to do such work as future painters may delight to dream of and to draw. If they work for their purposes as well as the classic builders wrought for theirs, then when they, in their turn, have become remote and mythical and classic, their work may become the material of an illusion, "such stuff as dreams are made of." But its very fitness for this purpose will depend upon its remoteness from current needs and current ideas, upon its irrelevancy to what will then be contemporary life.

Montgomery Schuyler.





MAIN BUILDING, FROM THE COURT ON RUE BONAPARTE.



COURT AT THE LIBRARY.

court, stands the principal building of the group, presenting a noble façade, consisting of a Corinthian arcade on a bold basement, and surmounted by an elegant attic, in the centre of which a large tablet of colored marble bears the inscription, "École Nationale et Spéciale des Beaux-Arts." Above waves the Tricolor. To the left of this building, and separated from it by a grille, is another court, known as the "Cour des Loges," flanked at the south by a large, uninteresting building containing the loges, which will be described later. To the right is the charming old garden of the Hôtel Chimay, which has recently been acquired by the Government and added to the school. At the right of the main court, a low range of buildings contains two large hemicycles preceded by a great vestibule, over which are located some of the offices of Administration. From this vestibule "d'Ingres," a corridor at either side connects with the cloisters of a small court, "Cour du Murrier." Along the walls of the corridors and cloisters are colored casts of the terra cotta frieze of the Ospedale del Ceppo at Pistoja. Under the arches are statues of bronze and marble. To one beautiful bronze cast, from an unfinished clay model, is attached a pathetic story. The sculptor was a poor young man, who came within one of gaining the "Grand Prix de Rome." Undaunted by his failure he went to Rome on his own account to brave every privation for the sake of the art he loved. The winter was unusually severe. One night the cold was so intense that he feared lest the clay of the statue he was modeling should freeze, so taking the coverings from his bed he wrapped them about the clay. In the morning the statue was found uninjured, but the young man was found dead, frozen stiff in his bed. The French Government ordered the unfinished model cast in everlasting bronze and placed in this honorable position in the heart of the school. M. Charles Blanc says of this statue: "Nothing more worthy of honor, as a work of art, has ever been received by France from Rome."

To the west of this court the build-

ings contain lecture rooms and ateliers. At the north, monumental steps lead to the great hall Melpomène, where exhibitions are held. To the right of this hall, in a series of galleries, are preserved the pictures which have won the "Grand Prix" in former years. On the left are ateliers. Other exhibition halls and a grand vestibule are to the north, and face the Quai Malaquais. Returning to the main court on the Rue Bonaparte, one passes the grille and enters the further court in front of the principal building. In the centre stands a great stone basin, thirteen feet in diameter, supported on a single shaft. Heads of gods and heroes are carved about the edge, a work of the twelfth century taken from the monastery of St. Denis. Ranged around the sides of the court are marble statues; copies from the antique; works of the pensioners at Rome; also numerous fragments from buildings destroyed at the time of the Revolution. On entering the building, one finds himself in a very large and lofty vestibule, adorned with columns, and in which are casts from the antique. Beyond the vestibule is a central court roofed with glass, and also containing casts and two groups of columns, size of the originals, from the Temple of Jupiter Stator at Rome, and the Parthenon at Athens. Beyond this court is the celebrated hemicycle of Paul Delaroche. It is finely proportioned and splendidly decorated, the semi-circular wall being covered with one immense picture, representing the principal artists of all times and nations. There are seventy-five colossal figures, each twenty-three feet high. In the centre on a throne sit Phidias, Apelles and Ictinus.

On the first story and over the main vestibule is the library—a long gallery extending almost the whole length of the building, having at either end vestibules with stately Corinthian columns. The ceiling is richly coffered and the woodwork is carved oak. On the side towards the court is a range of great windows; against the piers stand busts of distinguished artists. On the other side the books extend from floor to ceiling, separated midway by a gallery, with a fine brass balustrade. Down the

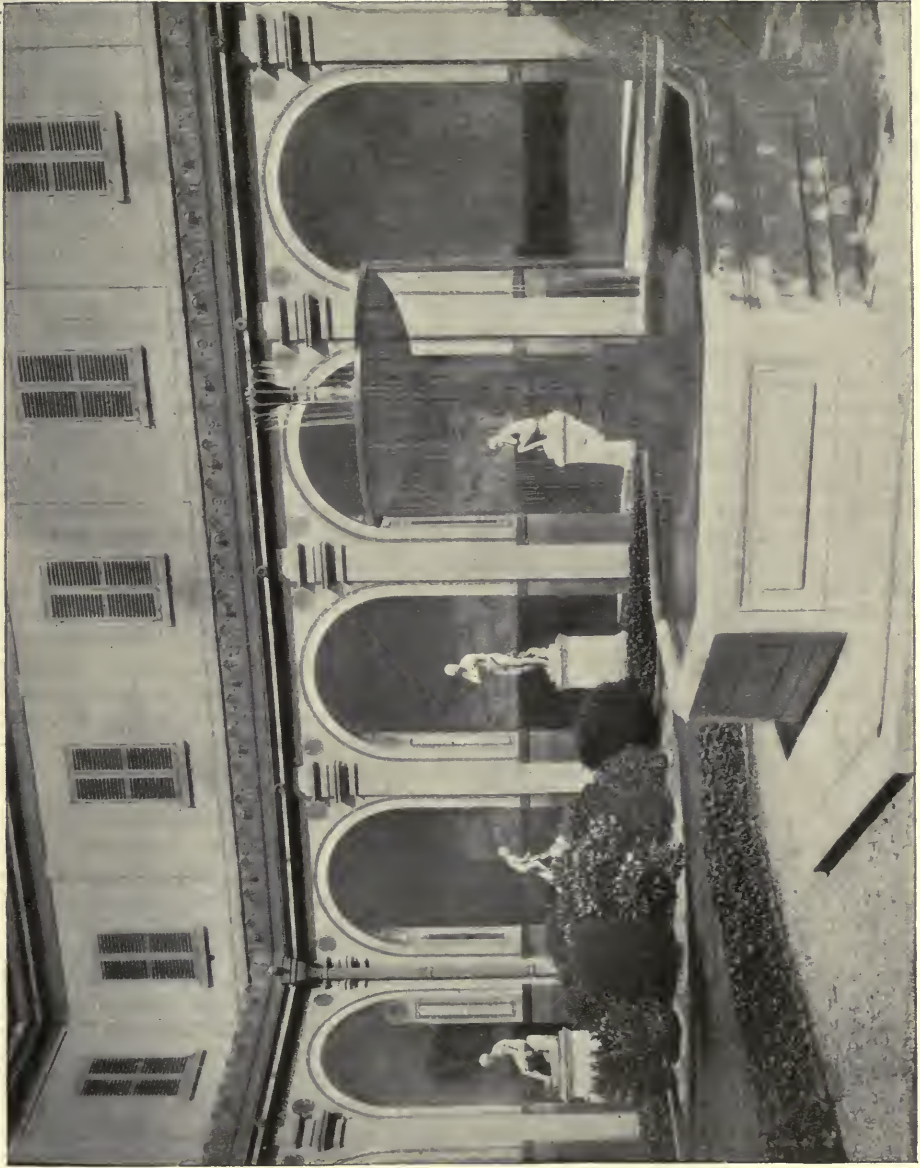
centre of the room extends a long line of desks, tables and cases, on which are placed models of antique buildings. The room has about it an air of refinement and elegance which I have never seen equaled. The great wall of books, mostly richly-bound folios, produces an effect of surprising richness. Many of the documents preserved here are unique, being the work of the pensioners at Rome, and form a collection of measured drawings and restorations from ancient buildings, probably the most complete and trustworthy that exists. On the Quai Malaquais, adjoining the other buildings to the west, stands the Hotel Chimay, purchased by the Government in 1885 and recently fitted up as ateliers.

From this hurried description of the buildings, one can form an idea of their vast proportions. But large as they are, they give but a partial idea of the size of the school, for most of the work is done off the premises, in the ateliers scattered all about the neighborhood. These number from fifteen to twenty, while those on the premises devoted to architecture are but three.

I shall now endeavor to explain the seemingly intricate, but really very simple and most efficient system of instruction. First let us begin with the entrance examinations, a subject of peculiar interest to many young Americans who intend to become architects. The school is free, supported by the Government. The appliances gathered here for a training in art are such as only a nation like France could accumulate in centuries, and such as is not found elsewhere in the world. The reputation of the school is such that there is no second. Naturally admission to it is eagerly sought, but alas there are barriers to be surmounted before one can enter. The Government has no intention of wasting the public funds on unpromising aspirants. The examinations take place twice in each year, in the months of March and July. Between two and three hundred apply, and only about one-eighth of that number are received. Recently the number of admissions was limited to thirty. The examinations consist of architectural composition, modeling in clay,

drawing from cast, descriptive geometry, plane and solid geometry, algebra, arithmetic and history. The first three are called "admissibles." If these are not successfully passed, one is debarred from taking the others. Perhaps the best way to give a clear idea of this trying ordeal will be to describe my own experience.

Having secured a letter of introduction from the United States Minister, which is necessary, I presented myself at the school and was enrolled on the list of aspirants for the next examination. Before nine o'clock on the appointed day I found myself, with about two hundred others, in the "Cour des Loges," armed with drawing board, T-squares, triangles, and drawing instruments. Monsieur Barbier, Chief Guardian, "Département d'Architecture," resplendent in his uniform and cocked hat, mounts the steps, orders one of his lieutenants to lock the gate to the court, then to make matters perfectly fair, he takes a small dictionary from his pocket, opens it in the middle, and selects the letter which first meets his eye, from which to begin the roll. Naturally the roll generally commences at about the middle of the alphabet. Then follows an interminable list of names. Each one, as he is called, enters and signs a register. I, who know no French, strain my ears for something which resembles my name, with the result that I bring up the rear amid a volley of what I take to be French profanity from Monsieur Barbier, who has to correct his register, and who has no great love for "*les étrangers*" under any circumstances. I mount five flights of stairs and find myself in a room about thirty feet wide, but of tremendous length. At the door I am handed a programme, an imposing document lithographed on a large sheet. Along the room on either side extends a row of stalls, for all the world like those of a stable; these are called loges. In the centre are long tables. Each loge has a shelf, which for one to work on, and a small window. The first to arrive occupy the stalls, those who come later must content themselves with the tables, where the light is very bad. One is free to walk



COUR DU MURRIER.

about as he pleases and to make all the noise he cares to, and each individual of the two hundred or more present is availing himself of these privileges to the utmost. At one end of the room a crowd are having great fun celebrating mass. One acts as a priest and sings the principal part while the others join in the chorus. At the proper time some one rings on a glass in imitation of the bell. The priest acts his part to perfection and is loudly applauded. Then some one cries "Vive Boulanger," and the whole room echoes with cries of "Vive Boulanger," "A 'bas Boulanger."

Many present are old hands who have tried the examinations before, without success, and feel at home. Some even have the hardihood to propose an initiation of the newcomers (reception des nouveaux). It is now about eleven o'clock and time for dejeuner or breakfast. I notice a great many issuing from a door half way down the room with eatables, and upon investigation I find it leads to a sort of kitchen, where bread, sandwiches, coffee and wine can be bought; the latter at seven cents a bottle. The whole company are now regaling themselves at the tables, which presently literally flow with wine and coffee. Suddenly there is a great crash and shouts. Some one has knocked the legs from under one of the tables. Bottles, plates, etc., fall in a heap on the tiles. This is too much even for the uniformed guardian, who has thus far been standing stoically with his hands behind his back near the door, and his voice is now added to the general uproar. Dejeuner over, the tables righted and the wine mopped up, work finally begins. Most of those present repair to the stalls and scrutinize the programme. There is an immense amount of visiting from one stall to another in search of ideas from those supposed to be strong (*les types forts*), but the room is comparatively quiet, with only an occasional cry of "Vive Boulanger," cat calls, and songs from various quarters. The programme calls for a little "portique," to form a point of view from a chateau, and to serve as a shelter for eight statues, owned by the proprietor, the building to be erected

upon terraces in which can be arranged grottoes, etc. The greatest dimension is given, also the scale at which the plan, section and elevation are to be drawn; a detail of the order must be made at a larger scale. The time allowed is nominally twelve hours, but as the various preliminaries described above occupy so much time, and as the guardians are in a great hurry to go home to their dinner, the actual time which one can work is only a little over eight hours. I work as I never worked before, but, do my best, the light begins to fade before I have washed in the shadows on the elevation. I had been warned to take candles, and provided myself with six; taking possession of one of the now deserted loges, I rashly proceed to light them all, but it is not long before I discover my mistake. Some one passing gives a whoop, and in a moment half of those left are gathered in front of the loge shouting "quelle illumination! oh yes! oh yes!* mon dieu! quelle illumination!" I think I am going to be mobbed by the dancing crowd, and it is some time before the excitement sufficiently subsides for me to resume work. The next day, and in the same place, follows the examination in modeling in clay. Each student is required to bring his own clay and tools, and woe betide the unlucky aspirant who is not informed. In each loge is a plaster cast of a piece of ornament, all exactly alike. Eight hours are allowed to reproduce it in clay. This day the tables have disappeared from the centre of the room, and in their place, at intervals, are piles of sawdust and pails of water. The water to wash the clay from the hands, and the sawdust to take the place of towels. The next day the examination in drawing from the antique completes the admissibles. For this, like the modeling, eight hours are allowed. The students are distributed in the various hemicycles and dejeuner is not a feature of the scéance. On the wall of the room I am in is a clock which strikes the quarters, and every time it strikes, a deep groan resounds from every throat, but otherwise there is no noise.

*A term of derision applied to Americans and English.

Great is the excitement at the posting of the names of those who have passed, and great is my joy to find mine among them. I am now permitted to take the examinations in mathematics and history, but as I know scarcely a word of French I present myself simply for the form, that being necessary in order that I may not have to undergo the admissibles next time. By the time the next examinations came around I had accumulated a limited store of bad French, and had time to brush up, indeed to polish my acquaintance with algebra, geometry, plain, solid, and descriptive, and to lay in a goodly store of history. Each of these examinations is both oral and written. Only one question in each subject is asked, and failure means half a year's wait. The first examination was in written history, and the question, as nearly as I can remember it, was as follows:

"It is proposed to erect a monument to the writers of the eighteenth century. Give a brief description of the design; the monument should be adorned with statues of authors and have upon it suitable inscriptions; what names should be so honored, and which should receive places of the greatest distinction. Give an account of the principal works of the various authors; also a short account of literature of this epoch."

The examination was held in the beautiful hemicycle of Paul Delaroche, and from my place of vantage on one of the upper tiers I could see a great deal of cribbing going on below. The first care of the guardian was to make a map of the room, showing the location of each pupil. This to aid the professor in the detection of frauds. If two papers are found to be suspiciously alike, he looks up the location of the men; if near each other he determines at the oral examination which one has cheated. Once detected in a fraud, that young man had better choose some other occupation in life than architecture, for he will find it extremely difficult, if not impossible, to ever enter the school.

The oral examinations in history are held in the same place. A printed list of questions are furnished

upon application. They embrace about fifty epochs of history, art and literature. The subjects are chiefly classical and French. The United States is honored by two questions. The questions concerning the English relate exclusively to the driving of them out of France by Jeane d'Arc and Duguesclin.

The professor of History conducts the oral examination in person; he is the only professor with whom the candidate for admission is brought in contact during the examinations, and the impression he produces is most agreeable. He sits in state on the rostrum. Before him on the table is his hat containing slips of paper, each with a number corresponding to a question. The student, when his name is called, advances to the table and draws a number from the hat. The professor opens it and tells him the subject he is to discourse upon. While I am waiting, a young man draws the American War of Independence. His ideas on the subject are somewhat misty. He knows of only two of its heroes, Washington and Franklin. The professor does not like his pronunciation of "Washington," and says those Americans over there, indicating myself and some of my compatriots, are laughing at him. He says you should try to get the true American pronunciation of the word, then repeats very distinctly for his edification *Vash-ish-ton*, with strong emphasis on the last syllable, and an almost imperceptible sound of the final *n*.

My turn comes and I draw literature of the time of Louis XIV. I soon get myself in trouble by making an odious comparison, having the hardihood to rank Molière below Shakespere as a playwright. Monsieur smiles, shrugs his shoulders and asks me if I am English. I answer American. He says perhaps it is natural for me to take that view, but he evidently pities my ignorance. However, Monsieur La Monier is a gentleman, a man of distinguished learning, and my beau ideal of a Frenchman.

The written examinations in descriptive geometry and other mathematics are conducted on the same plan. The students are not allowed to communicate. I hear several things which



VESTIBULE UNDER THE LIBRARY.



GLAZED COURT IN THE MAIN BUILDING.

sound strange to an American. One young man was told to move along, the inspector explaining that he might copy from his neighbor if he sat where he was. Another at the oral examination wished to show the "examineur" some problems in descriptive geometry which he had worked out. The examineur politely refused to look at them, saying some one else may have done them for you. At the written mathematical examination was an American newly arrived, who knew absolutely no French. The inspector remarked that he did not write as he read the programme, and asked him why. "Oui, oui," said the young man, this being his whole vocabulary. A moment later noticing that he still did not write, he asked if he understood French. "Oui, oui," he replied. Again he did not write, and the inspector said, "You do not write. Why do you say, 'Oui, oui,' whenever I speak to you?" My compatriot gravely replied, "Oui, oui, oui," amid shouts of laughter. It is slow work waiting one's turn at the orals. Monsieur Salisis, the official examineur, is an old sea captain, with a bald head, which he wrinkles when he is not pleased, and he is seldom pleased during the examinations, but he has an unlimited supply of patience; it cannot be denied, he gives the men every chance. A student is at the board hopelessly perplexed; the old man gets up, and says, "I will return in a few minutes; meantime you will have a chance to reflect." Hardly is the door closed, when at least fifty of those present begin to give advice to the bewildered victim at the board, and tell him how to do the problem. The examineur returns, and the poor fellow is more at sea than ever. "*Je vous remerci*," politely says monsieur, as he writes zero opposite your name.

It is now half-past six of a Saturday afternoon. I have been sitting all day on a wooden bench with no back. The French Government does not pamper the pupils at the National school with luxuries. Monsieur Salisis shuts up his note book and announces that the examinations will be resumed at seven o'clock to-morrow (Sunday) morning,

and I realize that I am in a foreign land.

Finally the F's are reached. I momentarily expect to be called. The last man has failed, and the following one will be asked to do the same problem. That is a habit of Monsieur, and I am anxious for the chance. No, it is Monsieur Flacet. "Do you present yourself seriously," asks the examineur. "This is the seventh time, and I don't believe you know any more now than you did the last time. *Prenez un point, et un plan. Trouvez la distance entre ce point et le plan.*" This Monsieur is quickly thanked. Evidently he is not worth wasting much time upon, and my turn comes. I am told that I write very poor French, and I am asked where I came from. I say "America." "*Amerique du nord ou Amerique du sud?*" asks Monsieur. I reply, my dignity somewhat injured, "*Les Etats Unis.*" "*Bien,*" he says, and adds: "If I had been in America as long as you have been in France I could have spoken English a great deal better than you speak French." But as he has no means of knowing how long I have been in France, I mentally do not assent.

At each of these examinations a certain mark is given, ranging from zero to twenty. Then the mark received in each subject is multiplied by a coefficient supposed to represent its relative importance, thus the mark in Architectural Composition is multiplied by 12; drawing by 2; modeling by 2; mathematics by 5; descriptive geometry by 5, and history by 1.

Failure to pass in a single subject debars the candidate. The names of those who are received are posted in the order of merit, ascertained as described, and here at the threshold begins the system of competition which pervades every branch of instruction at the school, a system which puts the men on their mettle, and produces the most extraordinary results, both as regards quality and the amount of work accomplished.

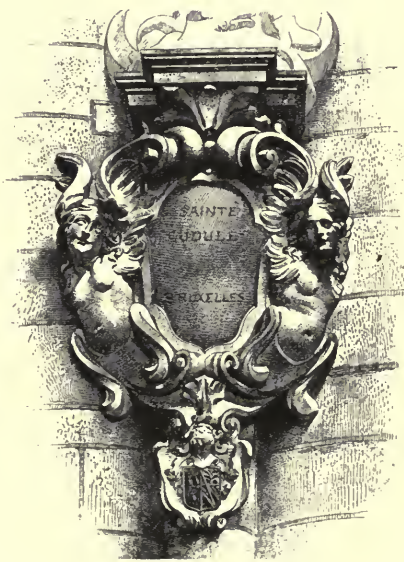
Having successfully passed the examination, notwithstanding my bad French, I find my name posted along with twenty-nine others, all that remain of the army of nearly three hundred.

Once having gained admission the student is allowed an extraordinary degree of liberty. He may stay in the school until thirty years of age, provided he accomplishes work each year which may easily be done in one or two months. He may choose his own professor in architecture, and may work or not as he feels disposed. To keep his name on the rolls he is compelled only to visit the school twice in the year. His advancement is solely by the honors, or values as they are called, which he obtains. The school is divided into two classes, first and second, the latter being the lower. When a

student has obtained the required number of honorable mentions, or values, he is admitted without further ceremony to the first class. When he receives the proper number there he is allowed to choose a final programme of his own making for a building, after which he receives his diploma from the Government and becomes a full-fledged architect. If a young man is bright, he may expect to reach this goal in from eight to ten years after entry, but a large proportion fall out before the course is ended. Thus far no American has ever finished the course, though several have reached the first class.

Ernest Flagg.

(TO BE CONTINUED.)





A reproduction from a full-size cartoon for "The Last Supper," to be executed in mosaic.

MODERN MOSAICS.*

Part II.



THE sixteenth century saw a crowd of busy workers in St. Mark's at Venice. The ancient mosaics of the Cathedral had begun to fall into disrepair already at the beginning of the fifteenth century. They had suffered severely in the fires of 1419 and 1429, and were besides by no means to the taste of the Renaissance, which looked on the works of the *trecentisti* and *quattrocentisti* as little short of barbarous. For the great painters who made their home at Venice (Titian, Tintoretto, and a host of other famous men) naturally judged mosaics from the point of view of their own art, not from that of architectural fitness. They aimed at painting in enamel, and considered that the culminating point of glory had been attained when a critic could say of the work that "really one could not have done better with the brush; that from afar the mosaics seemed painted in oils." So dear to their hearts was praise of this sort, indeed, that Francesco and Valerio Zuccati engaged on the great arch before the first of the domes of St. Mark's ventured to introduce a little brushwork to heighten the effect of the

mosaic. They were accused of the subterfuge in 1563 by their jealous rivals, Vincenzo Bianchini, Domenico Bianchini and Bozza, and their work was submitted to the examination of a most illustrious tribunal of painters. Titian, Paul Veronese, Medula, called the Schiavone, and Jacopo Pistoia, met to inspect the offending productions. They recognized the traces of the brush on various parts of the mosaics, but asserted that the painting was altogether a work of supererogation, the color of the mosaic beneath it being such as to produce *da per se* the effect desired. The Zuccati were nevertheless obliged, probably through the machinations of their rivals, to take down the painted parts and put them up again at their own expense. Sharp indeed was the rivalry, and bitter the jealousies among those Venetian mosaic-workers. The Senate, bent on urging them to the fullest exercise of their powers, exerted itself to the utmost to encourage the competition. In 1517 it placed two angels by Mario Luciano and Vincenzo Bianchini, at the entrance of the cathedral that all men might judge their relative merits. In 1563 it asked the before-named famous commission of experts to classify the mosaicists in order of merit, and later on gave the figure of St. Jerome as a

* See No. 3, Vol. 11., ARCHITECTURAL RECORD.



THE MAIN ENTRANCE, ST. MARK'S CATHEDRAL, VENICE.

Mosaic of St. Mark, from designs by Titian (1545), executed in mosaic by the Zuccati Brothers.

subject to be treated in competition by all who cared to enter their names. The judges were men of fame: Paul Veronese, Tintoretto and Sansovino. The work of Francesco Zuccati was judged the best; then that of Gian Antonio Bianchini, of Bozza and of Domenico Bianchini. Francesco Zuccati was himself a painter, son of Titian's master, and brought up in his father's studio, and it was but natural that, at a time when mosaic had become the dependent of painting, a painter should be the most distinguished mosaicist. Or is it not in fact a misnomer to apply the name mosaicist, in the original sense of the word, from this time onward? For we have to deal not with originators now, but with copyists. Even painters, considered in the light of mosaicists, were not original; they thought in painting, and did but translate into mosaics; while those who were not painters copied straight out in Venice the works

of great authors composed for that special end; in later times (at Rome) works which had no relation whatever with the art the worker professed. Beautiful indeed are the copies which the first workers in this second stage of mosaic art produced; but they were the initiators of a second decadence from which we are but now beginning to emerge.

While Titian was occupied with mosaics in Venice, Raphael had something to do with them in Rome. Agostino Chigi "il Magnifico," called upon him for the plan of the Chigi chapel in the church of S. Maria del Popolo, and for the model of mosaics with which to decorate the cupolo. Raphael represented the creation of the world after the Ptolemaic and Aristotelian theory, before the planets have begun their revolutions. The work is divided into eight compartments around a central medallion, which shows the Creator with lifted hands. The planets, under



“THE LAST JUDGMENT.”

Executed in mosaic on the facade of the Cathedral of St. Mark, Venice (1856), after the original painting by Latanzio, Querana.

the mythological forms of Jupiter, Saturn, Diana, Mercury, Venus, Apollo and Mars, appear to be conducted by winged angels which await a sign from the Creator. The eighth compartment is reserved for the fixed stars, scattered over a sphere on which stand the words: *Fiant Luminaria in Firmamento Coeli*. Raphael had the advantage of an excellent translator in Luigi di Pace, a Venetian, whom Chigi il Magnifico called expressly from Venice, then, as now, the headquarters of mosaic art.

Meanwhile there was growing up at Rome the institution which was to do, perhaps, even more than the work at St. Mark's, to fix the new conception of mosaics as a dependent art. Muziano di Brescia, Marcello Provenzale di Cento, G. Calendra, Fabio Cristofari and Gessi were successively directors of the bands of mosaicists called from the various studios of Rome and Venice to co-operate in the work of decorating St. Peter's. In 1727, under Pietro

Paolo Cristofari (son of Fabio Cristofari), these bands of mosaicists were definitely united in a permanent work shop, which still exists as the Papa Factory of Mosaics. The manufacture of colors for which this factory is famous at the present day began from its very birth. Mattioli, Pietro Paolo Cristofari's colleague, and head of the workshop, pressed by the necessity of supplying an immense variety of enamels, invented new recipes, especially that of a remarkably fine purple which bears his name. This making of new colors was fostered by the action of Pope Urban VIII. (1623 to 1644) who conceived the idea of causing the frescoes and oil-paintings of the cathedral to be rendered durable by crystallization into mosaic. The copying of such pictures, composed without any reference whatever to mosaic, naturally rendered imperative a large assortment of colors, and so well has the ingenuity of the Roman mosaic workers known



CHURCH OF STA. PUDENTIANA, ROME.
Showing facade in mosaic.



A COLORED DESIGN FOR MOSAIC IN THE BYZANTINE STYLE.

how to respond to the demand, that the Papal factory has at the present time as many as twenty-five thousand shades at its disposition. The technique of the art has thus, of course, immensely improved since the days of the workers at Sta. Pudentiana and at Ravenna; many will think, however, that the mosaicists of those times understood their art intrinsically better than the men who copied in all the glory of its original coloring, say, Raphael's "Transfiguration," enlarging it to four times its original size. St. Peter's at Rome, like St. Mark's at Venice, is too full of detail to allow of description here. The few accompanying engravings of some of the mosaics show the best work produced in this second period of mosaic art.

Increased nicety in the manipulation of mosaics led to the execution of those *tours-de-force*, which now rise immediately to the mind when the word mosaic is pronounced. Portraits, pictures, ornaments of all kinds began to multiply rapidly. Provenzale di Cento himself, Muziano di Brescia's successor, was among the first to work in this direction, executing in mosaic the portrait of Pope Paul V., now to be seen in the gallery of

the Villa Borghese. He is said to have employed 100,000 pieces of enamel in this work of patience. Portable mosaics quickly became the fashion and contributed much to the degradation of the art. Not that such mosaics had been altogether unknown in old times. The Byzantine mosaicists of the tenth and eleventh centuries made many little pictures of the kind, which were much admired and treasured. They generally represented sacred scenes and were placed in the treasuries of churches to be shown to the devout on high days and holidays; or they stood by the bedside of wealthy lords and ladies, to remind them of their devotions. Two charming mosaic pictures of this description are to be seen at the Museum of the Cathedral in Florence, representing six of the principal scenes from the life of our Lord. The fineness of the work would be difficult to surpass even in these later days, while the subdued harmony of the coloring render them most attractive from an artistic point of view. They probably date from the tenth century. Such work as this, however, was a mere accessory to mosaic art, not the principal aim which, under the form of brooches

and other ornaments, it seems recently to have become.

The early part of the nineteenth century shows little mosaic work on an important scale. We must not omit to mention, however, the decorations of the New Opéra House and more recently those of the Panthéon, in Paris; where there now exists a National School of Mosaics, receiving an annual grant of 25,000 francs (5,000 dollars). The mosaics of the Panthéon are especially fine, approaching those of Ravenna according to the judgment of a French artist, in sobriety and calm of coloring, grandeur of conception, correctness of design, and inherent sense of architectural fitness. Christ, with the sealed book of the Future in his hand, is in the centre of the apse, while Joan of Arc kneels at his right and St. Geneviève at his left. The two maidens are being presented respectively to the Saviour by the Virgin and the Angel of France.

The mosaics of the Panthéon are but one example of a widespread revival of the art which has been manifesting itself in recent time in all parts of Europe, and which has its renaissance properly in that home of time-honored traditions, Venice.

Venice has in its part been renowned not only for its mosaics, splendid in colors and gold, but also for its won-

derful old Venetian glass. This in itself would be sufficient for a lengthy and interesting article.

In the modern renaissance mosaic has been executed and erected in many parts of the world, some of the most important cathedrals, churches and public buildings being decorated in this most beautiful of all materials for permanent color work. St. Paul's Cathedral and Westminster Abbey, London, are cases in point.

The best work done in Venice to-day is that done not by the trade so-called but by a small group of artists who have banded themselves together in the interest of the art of mosaic, and who either from their original designs or from the paintings of other artists, are executing successfully many commissions of important character.

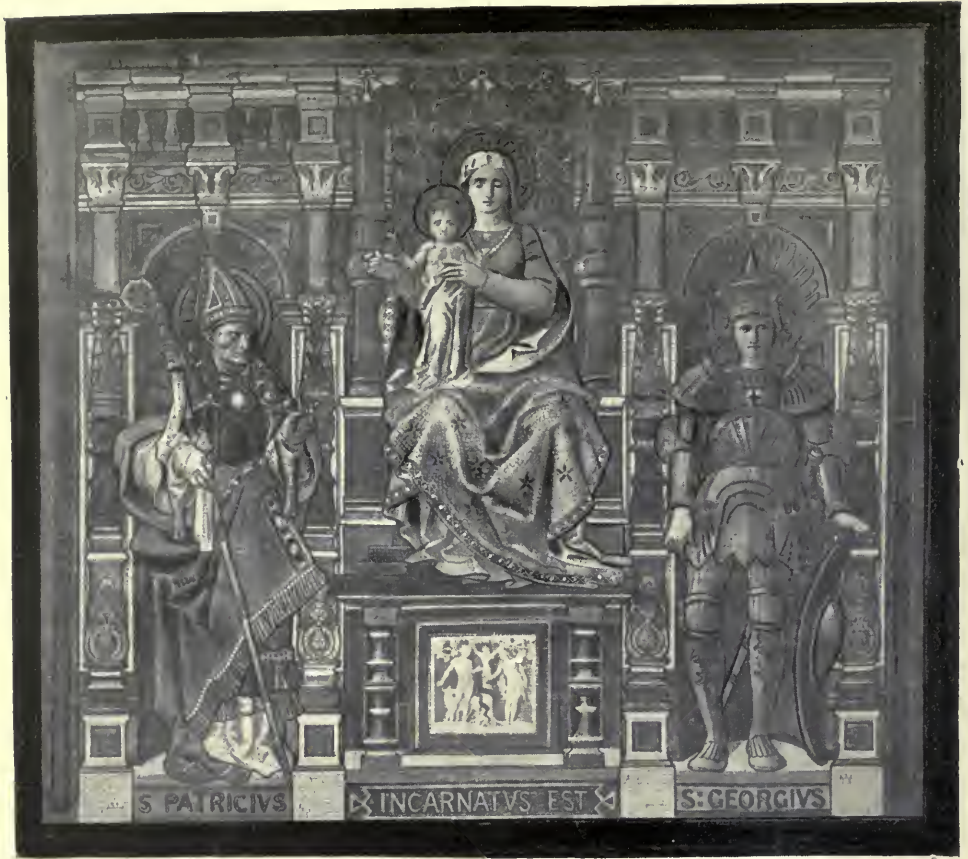
Probably the work recently completed for the new facade of the cathedral at Florence from paintings by the late Italian artist, Barbino, will take precedence as the most important commission as yet executed in modern Italy, while the work on the monument of Pio IX. at Rome and the mosaic decorations in the new Cathedral of Notre Dame de la Garde in Marseilles are both important monumental works which will worthily rank with the best of modern times.

The art of mosaic is one of apparent



"THE LAST SUPPER."

Modern Italian mosaic reproduction of Leonardo da Vinci.



A MODERN MOSAIC FOR A REREDOS.

simplicity, but must, like all other arts, rely for its quality upon the individual feeling and ability of the artist himself.

In the accompanying illustration of a corner of a practical studio the progress of the work can be seen. The original large size color cartoons showing upon the wall, the work in progress in place on the benches, while the mosaic frit is held in small trays beside the tables. Mosaic frit, the base of all mosaic pictures, is a composition of glassy character, and in manufacture is subject to intense heat. Under the influence of various oxidising reagents this glass becomes a compact brilliant paste of every shade of color, durable enough to resist, unaltered, the most wearing atmospheric influences. The liquid glass is poured into round biscuit-like forms which have a diameter

of 20 centimetres, and a thickness of one, and allowed to harden. When required for use these glass biscuits are cut into the familiar cubes by means of a hammer with a cutting edge, and placed according to their shade of color in shallow cups destined for this purpose. They are then taken up, as required, in pincers and placed in the cement according to the design which is being filled in. The famous gold and silver backgrounds are not, however, made in this way. On a ground of thick glass is laid a leaf of gold or silver; then a film of the purest glass is spread over it, and all is subjected to the action of fire. The various layers are thus fixed in one solid body (the gold or silver being buried between the two strata of glass), and can be cut with the hammer like ordinary glass enamel.

When the mosaic can be made at once *in situ*, the wall to be covered is prepared with a special cement, in which the cubes are placed; but it often happens, owing to the distance, that the whole piece has to be executed in the atelier, and then carried to the site to be decorated. Under these conditions the best method employed is known as *mosaico a rivoltatura*. The workman has before him a tray, with movable sides, of wood or slate. This he covers with a sheet of plaster, on which he copies the design to be executed. The cubes of enamel and gold are placed in the plaster according to the drawing, and when the work is finished their faces are covered with a paste made of rye-flour. The rye-flour paste is covered with a great sheet of paper divided into

portions according to the size of the parts to be successively taken off; and over the paper again is gummed a coarse cloth. The whole is now put aside to dry, and when it is thoroughly firm, the sides of the box are let down, the cloth is cut, and the paper, with the cubes attached to it below, raised out of the plaster bed. The pieces are naturally turned over as they are raised, hence the term *mosaico a rivoltatura*. They are then placed, in due order, on the wall, which has been prepared with cement to receive them. The surface is rendered even by the strokes of some flat instrument, the coating of paste, paper and cloth is removed, and the mosaic stands revealed. The cement has, however, probably been pressed up between the cubes of color by the weight



FROM A PHOTOGRAPH OF THE "ECCE HOMO," FROM MOSAIC BEFORE SETTING.



A Reproduction, showing the comparison between the colored design and the finished mosaic.
Design by Henry Albert Johnson.

of the cubes themselves. In this case the mosaic is washed while still fresh with a colored water, which harmonizes the cement with the colors of the cubes. This washing is a remedy by no means strong enough, however, when pictures are to be copied or portable mosaics made. In this case a heated mixture is made of white wax and earth of various colors, and this mixture is applied by means of hot irons to the cement that has to take on the exact tint of the surrounding mosaic.

One word must still be said on a comparatively recent development of the ancient art of lithostratnm. A visit to

the municipal factory, or to the workshop of Signor Merlini in the Via de Fossi at Florence shows the eminently artistic resources of the Florentine mosaic in *pietre dure*. The pallet of the worker in this branch of the art resembles a geologist's cabinet, consisting as it does of stones of all descriptions, veined and stained in every possible manner. Like the poet, the artist must be "skillful to select materials for his plan," choosing from all the vast stores of stones around him, exactly that shade, or spot, or that streak which will best serve the end he has in view. Incredible, to one who has not examined



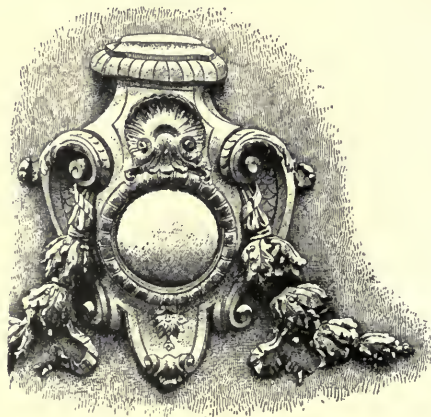
CORNER OF AN ARTIST-MOSAICIST'S STUDIO.

the work, is the exquisite softness of the shading to be obtained with some of the translucent jaspers. The shadowed concavities at the bases of flower petals, the delicate orbings of grapes, the veins of leaves and petals, the varied tints on grass and trees—nothing is beyond the power of artists who work thus from Nature's own pallet. As an example of the application of this kind of mosaic to purposes of decoration, we may cite the famous arms of various Tuscan cities which ornament the walls of the Medici Chapel in Florence. In these not only are the most delicately tinted stones most happily used, but strips of mother-of-pearl are introduced to give further light to the whole. In work of this kind the various parts of the design, cut from the stone by a wire covered continually with wet emery powder, are attached by means of strong mastic to a piece of hard slate also cut according to the design; all the parts are then united at the back by a slab of slate and placed in the setting (generally of black marble) destined to receive them.

The Florentine municipal factory is unfortunately dying for want of work.

Of a truth we feel inclined to echo, with regard to this branch of the art as with regard to mosaic proper, the words of Titian: "It is deplorable that mosaic, an art as valuable for its beauty as for the durability of its materials, be not more cultivated by artists and encouraged by princes." Where frescoes have vanished mosaics have lasted, eloquent voices reaching us across the centuries to give us the history of the tastes and aspirations of a past world. What paintings have come to us from Pompeii for instance? Whereas the mosaics, seen still *in situ* or in the museum at Naples, are as fresh as though they had been executed yesterday. There are signs, however, that interest in mosaic is reviving; and that, to the original conception of the aims and functions of the art, is to be added at last that technical skill which has been gradually acquired from the sixteenth century onward. If this is really the case, the end of the nineteenth century will, it may be hoped, produce mosaics such as the world has not yet seen, and put an emphatic seal to Ghirlandaio's words that "La vera pittura per l'Eternità è il mosaico."

Isabella Debarbieri.



RAYMOND LEE.

CHAPTER XVI.

THE NEW PATH.

Not until our two friends landed in New York and found themselves in the midst of conditions more permanent than those prevailing on shipboard, where, as Lee said, all the circumstances of daily existence were stamped like a railroad ticket, "good for only six days," did they really begin to press foot upon the new road they had entered. The voyage had been, in a sense, an intermediate stage—part of the process of departure—between the old life and the new. How, at times, the mind and the feelings play the procrastinator to the utmost moment, and recognize the inevitable evil only when it is actually at hand! Neither Lee nor Winter fully realized how greatly altered was the condition of their lives, how far and how irretroceably they had departed from the old existence in Eastchester, until quitting the steamer at the North River pier they found themselves amid the clamant bustle of the great city. How inhospitable the streets and buildings! How preoccupied and hostile the hurrying crowd! No recognition for the stranger anywhere! Obviously, here, as in a swift stream, existence must be held with strain and struggle. A passive attitude is impossible without sinking.

Lee at once felt himself confronted with the question: What position am I to take in this activity; and then the problem followed: How to enter it; for the sensation of being quite outside the bustle he was witnessing was stronger than any other sensation he received from his first impressions of the Western metropolis. Not until that moment did

he feel the pang of loneliness or appreciate how many quivering nerves there are in assurgent Memory. The result was dejection, spiritual surrender; but it must be added, the hopeless renunciation of any great possibilities for himself, which had followed the discovery of his father's fate and his own acceptance of the idea that his parent's crime or misfortune—which was it? Raymond frequently wondered—was continued in him, saved him from the poignant sense of defeat which afflicted Winter.

For the latter, who was no stranger to New York, the busy streets, by invoking old associations of a time previous to his departure for Europe and by thrusting upon him a sense of return and repulse brutally reminded him of how completely he was removed from the Eastchester life, its tender sentiments and delightful hopes.

"Another chapter closed," was Ralph's bitter thought.

He asked himself whether his life would always be as hitherto, an affair of little episodes unconnected as the plays that succeed one another on the boards of a theatre. True, he was the hero—the "impressional centre point," to use Heine's phrase—of each piece, but on every occasion as the curtain fell he had to resume his actual self again outside of his heroisms, afflicted with a deeper sense than ever of impotence and defeat.

As Ralph proceeded from the pier to the hotel his mood was not one that harmonized with the aspect of life presented to him on the way.

"I think this is the vulgarest hole on God's footstool," he cried, in disgust.

"It doesn't impress a stranger so," said Raymond, quietly.

"This place," continued Ralph, "always suggests to me that the drummer—or, as you call him, the commercial traveler—and the advertising agent have succeeded in realizing their natures in affluence—building and spawning, perfectly assured that civilization is in the main an affair of big hotels, plenty of ready-made clothing and newspapers."

The uncalled-for vehemence of Winter's denunciation set Raymond laughing.

"Who has hit you, Ralph?"

"Hit me?"

"What has aroused your vindictiveness with so sudden a leap?"

"Oh, the very sight of the assured, militant, vulgar, commonplaceness of this city always acts on me as an acid."

"Is there nothing but vulgarity in all this?" asked Raymond.

"Nothing," replied Ralph, doggedly. "So far as I can see," he added.

"Which is really all the qualification your statement needs, old fellow. Ralph, have I to take you in hand again? You are falling from grace. These old moods of yours are wrong. Hush, I must lecture you. Your over-nice discontent is becoming a very gross habit. Don't deceive yourself into believing that it's a high personal quality. When I hear you fulminating in your present style, I can't help recalling the voice of a countryman of yours, who surely was no Philistine. Well, I can't remember the exact words, but the sense is that men who live much in fancy are like drunkards whose hands are too soft and tremulous for successful labor. They need to respect the present hour, for everything good is on the highway. That's only a loose paraphrase of the idea, you know, which is very applicable to you. You'll think ever so much better of the world when you buckle down to work as it does. The trouble is, you're indolent and you regard your discontent as a mark of superiority."

Raymond had not measured the force of his words. They struck Ralph like a blow, wresting his thoughts and sensations from his present position and sending them whirling back upon himself. "Like drunkards whose hands are too soft and tremulous for successful labor." The sentence acted like fire. With remarkable potency, due, perhaps, to the fact that the judgment was delivered by a friend and irresistibly accepted by his own conscience, it burned away in an instant Ralph's last illusion: that in which he had covered his own personality—the belief that he was naturally a very superior person.

The altered expression of Ralph's face surprised Raymond.

"I haven't offended you, old man, have I?" he asked, diffidently.

"No. No," replied Ralph, vacantly, in a sad tone. "Oh, no. Ah, here's Broadway; so noisy, it's hard to make oneself heard."

The busy crowd seemed to have caught the refrain of Raymond's censure: "Like drunkards whose hands are too soft for successful labor."

During the evening, at the hotel, Lee made many attempts to draw his friend from the restrained and strangely quiet mood into which he had fallen, but the efforts were unsuccessful. Even the following morning, Ralph had not recovered himself. His usual mental boisterousness and emphatic expression had given place to a forced calm and constrained speech. When talking at breakfast, of plans for the day, he asked, in a resigned tone:

"Well, Raymond, which is it to be: Moyle or Pittsburgh?"

"Why put it that way, Ralph? you know there is not that choice for me."

"It's Moyle then? Eh?"

"Yes, it's Moyle," replied Raymond, annoyed.

"Very well," said Ralph, indifferently. "I'll show you the way to the *View* office and abide the result of your interview. Then I'll make my way home to Pittsburgh."

"That doesn't sound very enthusiastic," said Lee, smiling.

"Doesn't it?"

"Tell me, old man, what is the matter?"

"Matter? Nothing at all, Ray. Why, what should be the matter with me?"

Lee shrugged his shoulders. Clearly, it was best to leave Ralph to extricate himself from his present mood.

At the time we are speaking of, the offices of the *View* were not suggestive of the immense power and importance of that potent "organ of civilization"—the "greatest literary force in the World," as occasionally it reluctantly informed its readers with the modesty of double-lead type. Everybody knows there are some matters about

which a judicious publisher has to keep his readers informed, substantiating his solemn assurances by affidavits and other tokens of the delightful confidence of the public and his consciousness of his own veracity.

It is true, the approach to the sanctuary of civilization and the greatest circulation in the world was somewhat chilling to the spirit. It was dirty. The entrance was blocked by a score of ragged little ruffians—like vermin fed on printer's ink—yelling in strident or raucous voices. The grimy office inside, where the atmosphere smelt sour, was filled with slovenly clerks behind dirty glass partitions and with seedy groups of men perusing the publicly-displayed advertisement sheets. Chilling as these externals were, however, there could be no doubt of the intellectual activity housed within the building, or of the intensity of its relationship to civilization. Moyle once said, in an address which he delivered to the Congress of Young Men's Christian Associations, that the newspaper was the centre of Humanity, as the Delphic oracle was the centre of Greece. Moyle knew that a casual reference to Greece was for the public the equivalent of a classical education. Proof of the justness of the comparison fairly blossomed in many colors on the *View's* bulletin boards, which Lee lingered for a moment with the gaping crowd to decipher:

TAMMANY MAKES THEM EAT CROW.

STUCKEY'S DAGGER DID IT.

PRETTY MISS FLOPS SUES FOR HER BANGS.

CAUDLE SIGNED BY THE GIANTS.

MUCH-MARRIED TOMLINSON COMES TO GRIEF WITH THE
WIDOW.

GERMANY'S CHANCELLOR IS ANGRY AT THE "VIEW'S" EXPOSE.

THE MAYOR SAYS "NO."

PARSON PLUM'S EXIT WITH THE CONTRALTO.

THREE WEEKS IN A CANCER HOSPITAL—DOTTY WEN SHOWS
THE PRACTICE ISN'T ALL PROFESSIONAL.

ACTRESSES' UNDERCLOTHES AS DEPICTED BY A "VIEW'S"
ARTIST.

Raymond hurried through the office into the dirty elevator which was filled with a motly crowd bound as he was for the top story. He had barely entered the car when the elevator boy, whom one of the passengers addressed as "Smarty," suddenly banged the door because he spied two other individuals making for his conveyance, which he sent upward.

"Got the laugh on those fellows this time," he said.

"Who were they?" asked a youth with night pallor in his face.

"Spider and the Cholera Case. Say, is it true he's (meaning the latter of the two forsaken ones) going to free-lunch on germs in the hospital? Out."

The top floor was reached and there was no time for the pale-faced youth to impart to "Smarty" what he knew of the latest enterprise in "disease journalism" which the enterprising *View* was about to make in order to solve, as the editorial announcement had it, "problems which had balked the medical science of two continents."

The "Cholera Case," an anemic house-painter, who had been hired for a trifling compensation to wallow in disease for a day or two and describe his sensations in the interest of "medical science," was making his last visit to headquarters for final instructions.

Lee followed his fellow-passengers from the elevator into a large untidy room, where they dispersed, being privileged to pass the low iron railing which debarred him from intruding upon the ink-besmattered desks which stood in the space between the railing and the number of little compartments like bathing boxes which lined the window side of the room and shut off from the interior all light but the little that was diffused over the top of the compartments (which were not partitioned upward to the ceiling). To this scant illumination was added what cannot be described otherwise than as a foggy light which penetrated with effort a dirty ground-glass window that opened, in the rear of the room, upon an interior court—that consumptive substitute for direct daylight. Indeed, the general appearance of the room was sickly and sour. The floor, free of any covering, was grimy and worn; the unpapered walls,

stained in many places, were visibly coated with dust. The only brightness was the yellow gas-light which, shrouded with green-tinned reflectors, burnt above a few of the inky desks. Partly within one of these illuminated spots and partly eclipsed in the dusk without sat, tilted back in his chair with arms placed wing-fashion behind his head, a seedy-looking middle-aged man with watery, red eyes and long matted beard. He was surrounded with a litter of newspapers which, heaped on the floor, half buried the legs of his chair. He was listening attentively to a jaunty individual who sat upon the desk before him with a tall hat placed as far back upon the rear of his head as possible. His eyes were fixed upon his feet extended in front of him, and as he spoke he drummed upon his boots with the cane he carried.

"Mind you," Lee heard him say, "eight different women identified the stiff as the body of somebody missing in their own families. I got hold of four of the women, and by extending to them my deepest sympathies obtained a full view of the skeletons in *their* closets, which will make a good story next Sunday, I tell yer. Bet yer those weeping dames 'l be surprised when they read it served up with that sauce piquant for which, mind you, Munsey, this is said without the slightest vanity, only yours truly holds the recipe."

"You're a dandy!" exclaimed Munsey, his admiration evidently springing from the entire tale which his companion had recounted, but of which Lee had caught only the conclusion.

At this moment a young man with a smooth, fat, boyish face hurried out of the adjacent room.

"Where are you off to, Chubbs?" cried he of the tall hat. "Wait a second, I know you were on the point of suggesting *it*, and I don't mind if I do. I'll go with you."

Neither the question nor the proffered company halted the young man, who continued his way to the elevator, merely waving his hand hastily in token of recognition. His passage through the room attracted the attention of the bearded gentleman who had been addressed as "Munsey" to where Lee was standing awaiting the approach of

some one to put him in communication with Mr. Balder—the City Editor.

The tilted chair was suddenly brought to its four legs, and Munsey cried—

“Fleck!”

The individual thus summoned was seated at a desk with his back turned to Raymond. He was engaged in tearing the wrappers from a vast pile of newspapers. Apparently, the use of his name had a habitual signification, for, paying no heed to Munsey, he turned instantly to where Raymond was and, seeing him, began to arise, an operation which required time and was worked chiefly with the arms. Not that Fleck was either ancient or infirm. He was not over 30, but having been for many years the guardian of the approach to the Sanctum his surroundings had impressed themselves upon his habits and manner. He was dirty and slovenly, with an outward air of hostile vulgarity. He wore a shiny black alpaca coat, which extended scarcely below his waist and added nothing to his diminutive stature. He moved with a shuffling gait, as though his feet were in slippers.

“We-al?” he drawled, saluting Raymond as he approached him.

Lee inquired whether he could see Mr. Balder.

“Does he know yer?” Fleck jerked out, after cogitating a moment over Raymond’s name.

“No. I come here by appointment made with Mr Moyle.”

“Oh, you want to see Mr. Moyle?”

“No, no; Mr. Balder.”

“Well—I’ll—see.”

Fleck slouched off into the inner room whence the young man had emerged a moment or two before. Raymond waited many minutes before any word from Balder reached him. To pass the time he interested himself in his queer surroundings. One of the little cupboards in front of him opened and a huge bushy-haired man, wearing big, gold spectacles, came out with several sheets of manuscript in his hand. He passed into another of the little boxes, whence issued, after a few moments, the noise of much hilarity. Moyle appeared for a moment in his shirt sleeves

puffing an immense cigar, but, though he looked Raymond straight in the face, he paid not the slightest attention to the latter's salute. The color came to Lee's cheek, and he began to wonder whether Ralph hadn't made some mistake about the appointment with Balder. He was on the point of telling Munsey that he would call again, the City Editor apparently being busy; but as he was about to speak a diminutive messenger boy, arrived with a telegram, and peremptorily pushing his book under Munsey's nose told him to "sign it." Then he began to whistle and "squared off" to box another urchin who happened to enter at the moment with "proofs" from the composing room.

Before Raymond could beat a retreat Fleck returned, holding leisurely conversation with a stout, bald-headed man who seemed to be pushing the greater part of himself before him with the gait of a fat turkey. The latter spoke energetically and sententiously.

"You're safe, Fleck; stick to it. Don't mind what they tell you. I tell you Buts can't do it. The Englishman will be beaten before he puts the gloves on. Mark me, he won't last four rounds. We beat 'em at every game they know. You can put your money on the U. S. every time and go to sleep over it."

"You're right," said Fleck, in a tone that asserted fellowship and implied that he himself had long ago reached the same indisputable conclusion.

With a nod of the head the fat man sailed away, then Fleck turned to Lee.

Still at some distance from the latter, he beckoned to him.

"Hi! This way."

Thus summoned, Raymond was conducted to the adjoining room. It was filled with a score or more of little desks, suggestive of school. Half inclosed in a small alcove, occupying one of the corners, sat the City Editor. He was busy at the morning "assignments," and when Lee approached scarcely glanced from the book in which he was making sundry entries. He pointed, hastily, with his pen to a vacant desk.

"Take a seat there. I'll attend to you in a minute."

Raymond did as he was bidden, meeting for a moment, as he walked to the desk, the inquisitive stare of about a dozen faces. It was a Falstaffian crowd, but its raggedness was of the intellect. There were one or two faces there of which one might predicate gentility—the remainder were Tramps of the Pen, members of that great army of vagrants of the literary world which the newspaper has created “brainy, breezy, newsy;” scribblers—men possessed of a cheap smartness which readily catches the superficial tone of the hour, or the flashy complexion of an event, or dullards who have acquired the methods and tricks of their trade and bend themselves to their work machanic-fashion; all bitten through, inoculated and diseased with the vices and vulgarities of Journalism. What would Old Musty, the Rev. Plausibility, Mr. Goodman and our scrupulous matrons and all the “constant readers” of the newspapers (each reading that one that most vigorously scratches his particular mental itch), think could they see every morning what lies behind the white sheet they read? The types have not a changing physiognomy to reveal the flippancy, cant, ignorance or insincerity of the writer, and one may print on paper the secrets and shames and heartbreaks which dirty curiosity and menial search have discovered without making it bleed. And all for two cents! Really machinery has cheapened things when for two cents daily one can buy the nerves and the sensibilities of hundreds. Miss Prior—old Prior, you know, is a proud man and loved his daughter deeply—registered alone last night at a second-rate Broadway hotel and shot herself through the temple in the early morning. Great opportunity this for the *View*. When Raymond met Balder he was busy about it. Somebody must be deputed to view the room where the girl died, describe how and when and by whom the body was found, the clothes worn by the unfortunate and her appearance, and snatch, if possible, for publication every letter or scrap of writing found upon her. Her signature—that assumed name, a last feeble effort to close the door upon the world—must be copied and reproduced with crude illustrations of the hotel, the room where the tragedy occurred, the dead

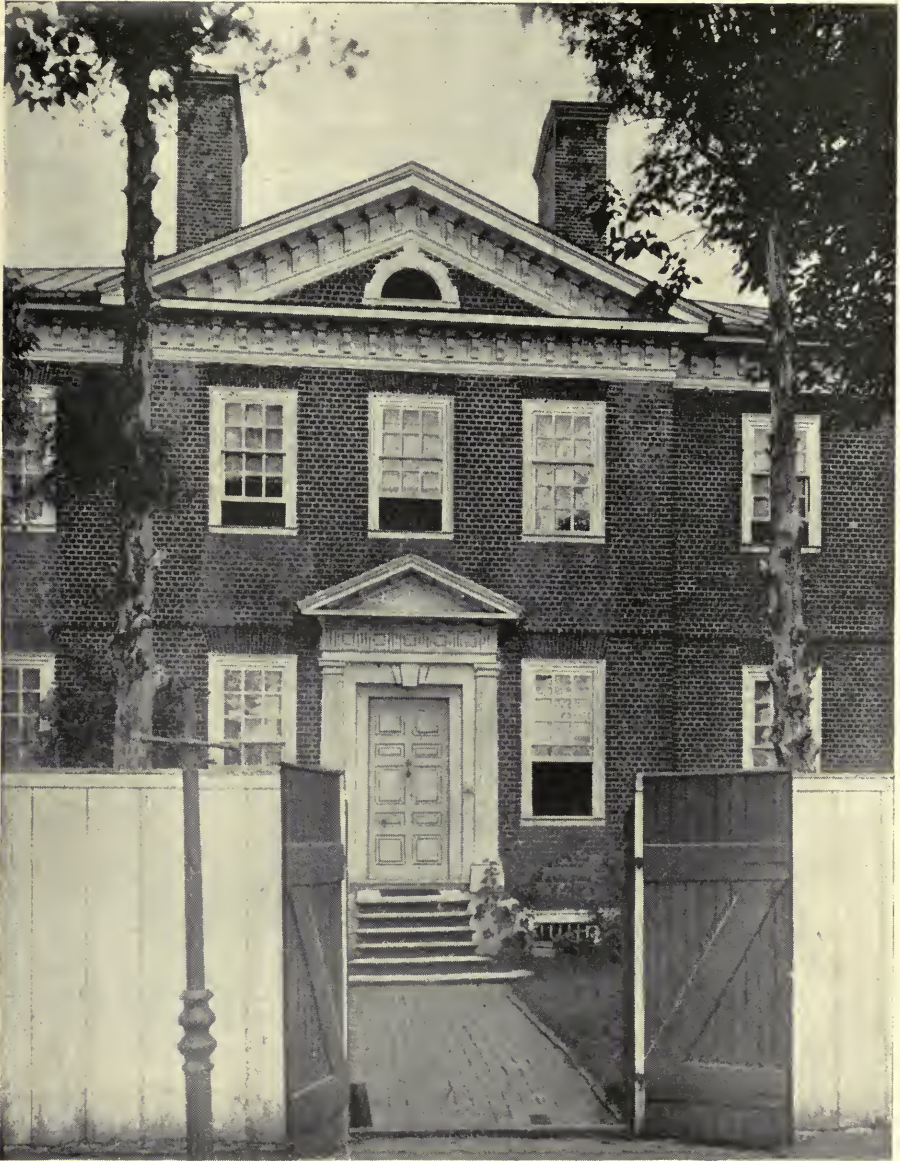
girl's face. Then Prior himself must be seen—his grief is a public occasion—the family must be questioned, school-mates and associates interviewed. And the reason for the deed? Ah! Suspicion points strongly in *one* direction. Could it be —? Unfortunately, on this matter we can only hint. Besides, sir, you musn't imagine from anything the prejudiced author of this history may tell you that there are not limits which a respectable journal will not overstep.

There was also the divorce case of Spill *vs.* Spill, the co-respondent being a married man of position with daughters just entering society. That important matter was also on Balder's hands. Secretary of the Navy Finch was about to marry, and as he wished the ceremony to be private *he* had to be watched. At the moment all the steamer piers in the city were under surveillance because Finch's fiancée was expected from Europe and Finch had dared to keep secret the name of the boat she was traveling on. The Press that boasts of American chivalry to women once dogged a President's fiancée, so the idea that a mere Finch could secure privacy for *his* little affair was absurd. At that time, too, Chief Justice Tod was dying and it was necessary for Balder to keep his men alert on the dying man's doorstep as well as in the vacant house on the other side of the street, so that servants and doctors and visitors, including Death himself, should be under espionage. Balder's hands, indeed, were full, there were so many dirty corners and forbidden places in the city to be looked after. Raymond watched him as he called up each of those present to his desk, instructed him and packed him off on the hunt for "news." Balder was not much over thirty—a putty-faced, fair-haired man, with a square, protruding, lumpy forehead. His manner was dictatorial, and in tone of voice, words, gestures, he was perpetually asserting a force and dignity which evidently he could not definitely persuade himself he possessed. It was curious to watch his puffed self-importance manifest itself. The world, one would think to see him, revolved around his little corner; indeed, when Raymond afterwards came to think of what he witnessed, the strangest part of all was the serious way in which everybody from Balder down took themselves. All acted as though the affairs

they were about were really important and of some concern to humanity. There was about them something of that sacerdotal air of gravity such as gives importance to the petty personalities of priests—the big house and its important transactions were behind them. When Balder had dismissed the last of his band he turned his attention to Raymond.

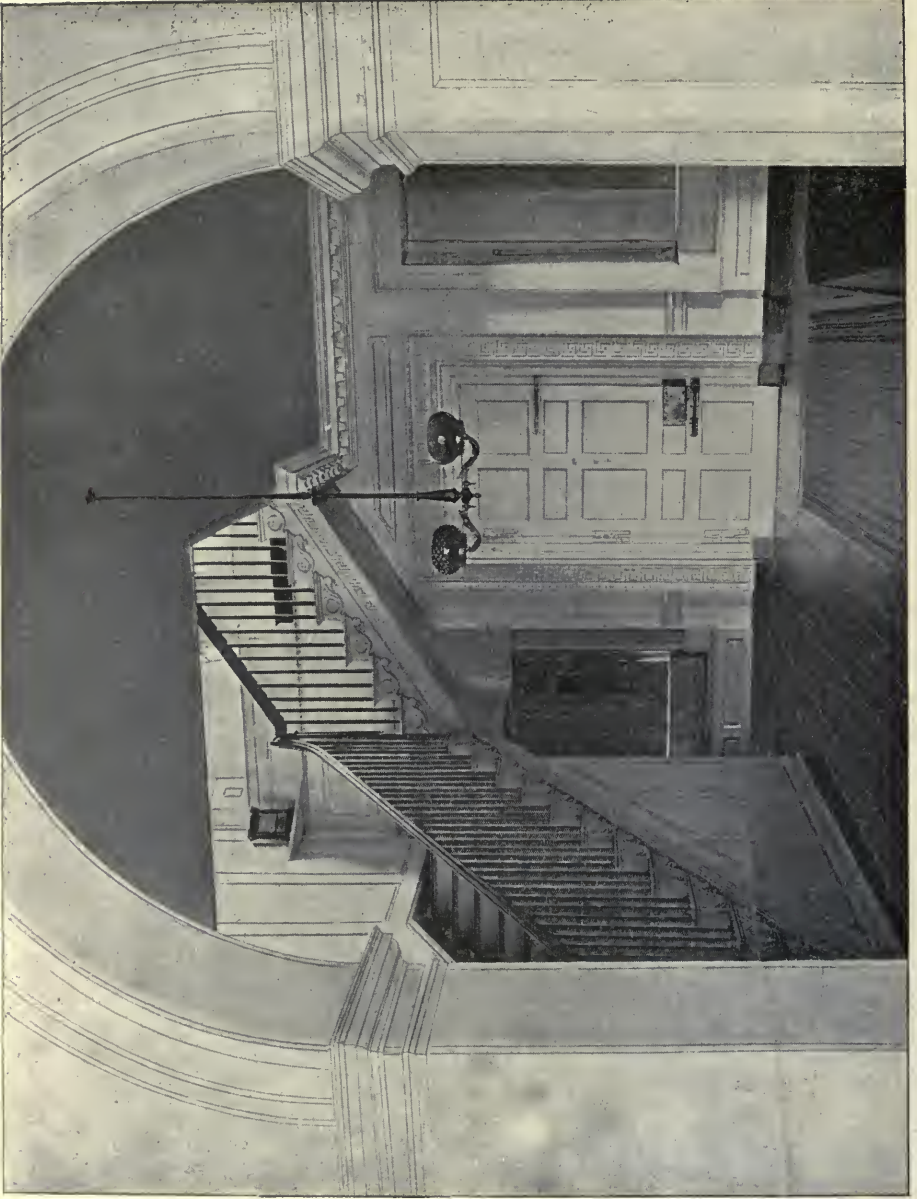
To be continued.





Annapolis, Md.

FRONT OF THE SCOTT HOUSE.



Annapolis, Md.

HALL OF THE SCOTT HOUSE.



Annapolis, Md.

SITTING ROOM IN THE SCOTT HOUSE.



Baltimore, Md.

PORTICO OF "HOMEWOOD."



Baltimore, Md.

HALL AT "HOMWOOD."



Annapolis, Md.

PARLOR DOOR IN WHITE HALL.



Annapolis, Md.

OLD GOVERNOR'S BUILDING.



THE FARMERS' BANK.