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DECEMBER 2, 1899.



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IT seems to us that there has already been too much amateur tinkering with the White House, at Washington, and that the question of enlarging it, as certainly seems to be desirable, should be taken up by the next Congress, and solved, as other questions relating to the public buildings of the United States are, with competent expert assistance. Next to the Capitol, the Executive Mansion is, theoretically, the most important building in Washington. There the President resides; there he holds the Cabinet meetings where the policy of the United States is decided; from that building issue, primarily, his orders as Commander-in-Chief of the Army and Navy of the United States; there are received the ambassadors of foreign nations, and in its rooms take place the entertainments which the head of a nation of seventy million people offers to the representatives of other great nations. Such a building, however quiet and unpretentious it may be, should be spacious enough to avoid crowding and annoyance to the advisers and guests of the President, and it should certainly be worthy, by its beauty and refinement, to represent the noble thoughts of courtesy and consideration for all men on which our Republic is founded.

THE present White House, by its simple and elegant Classicism, as well as by the unrivalled beauty of its situation, comes very near fulfilling the ideal of the one palace of a great Republic; but it is too small for its purpose, and for the last ten years it has been the object, so to speak, of a succession of artistic assaults which make the judicious grieve, not so much, perhaps, on account of the danger of the adoption of any of the extraordinary schemes which have been successively brought forward in the newspapers, as from the impression that they give that, while private owners of even moderate means would not think of building or altering a house without the assistance and advice of a trained architect, the Executive Mansion of the United States is abandoned to the tender mercies of any President's wife who happens to have "a natural taste for architecture," and who can get an official who has graduated from an evening school to "draw out" her ideas. The most recent of these volunteer schemes for altering the building, which has the merit of being less offensive and ridiculous than most, but is the more dangerous on that account, is credited in the newspapers to the Superintendent of Public Buildings, who has worked, we are told, under the direction of the President, and has evolved a plan for the addition of wings to each end of the present building, retaining the same style, and avoiding the semicircular colonnades, and similar architectural finery, which have adorned most previous designs. The published

sketch shows, however, an ambitious entrance in the middle of one of the wings, destroying the symmetry of the front, and giving it the air of a city block, and this violation of the first principles of architectural composition in the façade does not encourage favorable anticipations as to the designing of the interior. Such as it is, however, the Superintendent's plan will, we are told, be presented to Congress at the coming session, supported by the influence of Senator Cullom, and, as the cost of making the change is estimated at only two hundred and fifty thousand dollars, there is said to be a serious probability that it may be adopted, and those who wish to see the public architecture of the United States represent the highest skill of the best architects of the country should lose no time in making their opinion of it known.

IN the first place, with all due respect to our excellent President, who has the example of many of his predecessors to justify him, it seems to us that the occupant of the Executive Mansion should be the last person to make plans for altering it. He may, with perfect propriety, call the attention of Congress to its defects, for the benefit of his successors, but there is to us, and, as we believe, to most people, something unpleasant in the idea that a President, elected by his fellow-citizens to fill for four years the highest office in the United States, and occupying, as an important incident of his position, a public building, should treat the building as if it were his private property, making plans for altering it to suit himself, and expecting Congress to supply the money for the work. Kings treat their palaces in this way, it is true, but, in theory, the palace is always the private property of the King, and he is not in any sense, as a President is, the temporary occupant of a building belonging to people whose rights and feelings he is peculiarly bound to respect. That the Executive Mansion should be enlarged we willingly grant, but, when the enlargement is made, let it be done publicly and generously, with careful consideration and under the best advice, remembering that volunteered expert suggestions are generally worth what they cost, and no more, and that the White House is, in many respects, the most important of the national buildings.

A SUGGESTION, which is, we think, not altogether new, has recently been made in New York, with more reason than ever. Just now, it is intended to build at least one new bridge, and a tunnel, to connect New York and Brooklyn, at a cost, probably, including the approaches, of at least twelve million dollars each. The bridge is to be built by the taxpayers, while the tunnel is to be made by private enterprise, but in either case it is certain that the citizens of New York and Brooklyn will pay the interest on the cost. One does not, or at least, one should not, set about spending twenty-four million dollars without a good deal of consideration; and one of the first things that occurs to a disinterested person, looking at the map, is that a great deal of money has already been spent, and seems likely to be spent, solely out of deference to an ancient superstition that the navigation of the East River is worth preserving. An ordinary man, before he spent twenty-four million dollars, or twenty-four dollars, to preserve an old pathway across his land, would ask himself whether some other route could not be found over his estate which would be equally convenient for his neighbors, and would save him unnecessary expense; and, in the case of New York, there are obvious ways in which the use of the East River could be discontinued, without disadvantage, and, in many instances, with positive advantage.

SO far as its water-front is concerned, the East River, above Thirty-fourth Street, is practically worthless, the rapid currents and the character of the shore making it impracticable to manoeuvre vessels there; and the only thing to be considered is the through traffic. Of this there is now considerable, as the Sound steamers, the transfer-boats from Mott Haven, and some small coasting-vessels, pass through it, on their way to a safe landing-place on the west side of the city, or on the Jersey shore; but the completion of the Hudson River tunnels and bridge will put an end to transfer of cars by boat, and it has long been questionable whether the Sound steamers would not find it desirable to land at the upper part

of the city, and save the long trip around the Battery to their North River piers. One advantage of the North River terminus for the route of these boats has been that passengers for the West and South could be easily transferred to Jersey City; but, with the completion of the Hudson River tunnels, it is altogether likely that the trains for Philadelphia and Washington, as well as those for Albany and Boston, will start from a common station, probably in the neighborhood of the Harlem River, so that this will become the natural terminus for the Sound lines. The coasting trade which now passes through the East River, or which will pass through it after railroad communication is opened between the New Jersey shore and New York, is of very slight importance, and such portion of it as could not use, instead, the route through the new channel of the Harlem River may safely be neglected.

WITH the navigation of the East River otherwise provided for, as seems to be entirely feasible, there would be nothing to prevent establishing communication between New York and Brooklyn by filling-in the channel, instead of bridging or tunnelling it, and the advantages of doing so would be enormous. Experience has shown that ordinary people dislike tunnels, and the growth of Brooklyn would be far more effectually promoted by half a dozen surface lines of electric-railway to New York than by a single tunnel line, while the area thus added to the most crowded part of the city would be of immense value. It may be roughly estimated that the net profit from the sale of the land alone, after filling-in the least valuable part of the East River and laying-out streets, would be from ten to fifteen million dollars, as contrasted with an outlay of twenty-four millions for incomparably inferior means of uniting the two boroughs; but this is by no means all of the advantage which skilful management of the undertaking might secure to the two cities. The water-front on each side of the connecting-tract of new-made land would afford an admirable opportunity for the construction of docks, accessible to all the railways entering New York. The northern docks would serve the Sound lines and, perhaps, some of the Hudson River local traffic, while the Southern ones would be available for Transatlantic steamers, greatly increasing the water-front suitable for this purpose.

A GOOD example of the way in which architects are encouraged, and an artistic atmosphere maintained around them, in France, is to be found in the farewell reception given in Paris to M. Emile Benard, the winner of the "Berkeley" competition for the buildings of the University of California, before his departure for the scene of his labors. The invitations to this reception were sent out in the name of MM. Daumet, Vaudremer, Guadet, Pascal, Moyaux, and Scellier de Gisors, as representing the School of Fine-Arts, and many of the most eminent architects in France responded to it. M. Georges Leygues, Minister of Fine-Arts, presided, and beside him sat M. Larroumet, the former Minister, M. Normand, Member of the Institute, and other high officials. M. Guadet described the competition, with warm thanks to the American architects for their part in it, and M. Pascal proposed the health of M. Benard. Then the Minister of Fine-Arts rose, and, after congratulating M. Benard in the name of the Republic, said that the President had entrusted to him, for M. Benard, the cross of the Legion of Honor, which he thereupon presented to him. After other evidences of esteem and affection, the party separated, leaving M. Benard to complete his preparations for removal to his new home, where, we are sure, he will be heartily welcomed by the members of his own profession.

WHAT an instructive contrast is to be observed between these proceedings and those which follow a great competition in this country! It must be remembered that many of those who assembled to congratulate M. Benard were his rivals in the competition in which he carried off the prize, yet they cheered him, apparently, as heartily as the rest, and parted from him, as the account tells us, "with brotherly embraces." This is the French way. The American way we have recently seen. An architect, highly trained, and already distinguished, honorable and popular in the profession, wins fairly a great Government competition. Does the Government send its high officials to congratulate him, and to offer him public honors? No; on the contrary, the highest official within

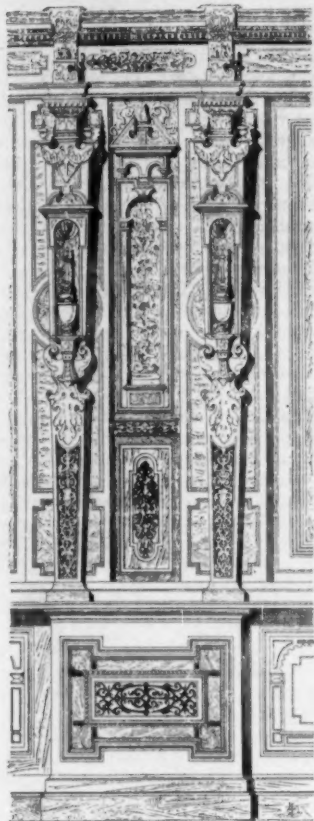
reach crawls around, — there is no other name for it, — to try to deprive the honorable winner of his "job" by fair means or foul, by wire-pulling, influence and misrepresentation; while, from some of his professional brethren, and rivals in the competition, instead of receiving "brotherly embraces," he is treated to a "protest," with far too many names upon it, against the award. We presume that architects generally in this country have made their comments on the New York Custom-house affair, and we will not add any; but it may be observed, for the benefit of those who look to the École des Beaux-Arts for the revelation which is to inspire new life into American architecture, that when American architects treat each other as the Frenchmen do, and not till then, there will be some chance of creating here the "artistic atmosphere" which does so much for architects and architecture in France.

THE profession in Great Britain mourns the loss of two architects of great and deserved distinction. Sir Arthur Blomfield was the son of a popular and beloved Bishop of the Church of England, and entered professional life with a natural predilection for the style with which the interest of his family and friends had been particularly associated. He studied English Gothic, however, with trained taste, as well as scientific knowledge, and the work which he afterwards carried out in the style was always remarkable for its pure and interesting design, as well as for the skill with which it was adapted to modern purposes. His professional work, with his amiable personal character, brought him distinguished honors. He was an Associate of the Royal Academy, and Vice-President of the Royal Institute of British Architects, and received the Institute Gold Medal in 1891. Sir Thomas N. Deane, no less distinguished in his way, was an Irishman, having been born in Cork in 1828. His father and grandfather were also architects of distinction.

A NEW sort of pump, which promises excellent results, is made in Berlin by Max Brandenburg. In this pump there is no cylinder and no piston; there are no sliding parts, and consequently no friction, no steam or vapor of any kind is used, and any kind of mud, sand or gravel, mixed with water enough to make it flow, can be pumped through it without inconvenience. The principle of the pump is simply that of the common bellows, a partial vacuum being produced, by the extension of a flexible membrane, in a receptacle closed by a valve, and communicating with the liquid to be moved, and the liquid thus drawn into the receptacle being expelled through another valve by the compression of the membrane. In the Brandenburg pump, the membrane takes the form of a diaphragm of Para rubber, which is stretched across the receiver of the pump, and actuated by a rod, moved either by hand or by power of any sort, and the whole construction is extremely simple, every part being readily accessible for replacing in case of wear. The pump, as made in Berlin, will lift from a depth of twenty-three feet, and it is claimed that one man can raise, with the patterns adapted to hand labor, four hundred and fifty gallons an hour from a depth of thirteen feet.

A SIMPLE contrivance for ruling parallel lines near together has been patented in Germany. Taking a given forty-five degree triangle, a piece of thin wood, a little thicker than the triangle, is cut into a shape nearly octagonal, but with the diagonal faces varying a little in length, the whole being of such a size that it will fit in the inner opening of the forty-five-degree triangle, with a little space to spare. The width of this space, between the inner hypotenuse of the triangle and any given side of the octagon, is the measure of the spacing of the lines to be ruled. To use the device, a T-square is placed on the drawing-board in the usual way, the triangle, or "set-square," adjusted to the T-square, and the octagonal piece of wood put into the triangle. Holding the octagon with the little finger, the hypotenuse of the triangle is pushed up against it, along the edge of the T-square, and a line is ruled. The triangle is then held still while the octagon is slid along until it comes in contact with the vertical side. Holding it there, the triangle is again shifted until the hypotenuse comes a second time into contact with the octagon, and another line is then ruled. Repeating this operation, a succession of lines, equally spaced, can be ruled at an angle of forty-five degrees with the T-square, and the spacing may be changed at pleasure by turning the octagon.

DECORATIONS IN WASHINGTON AND CHICAGO.



Wainscoting in the Fursteneckzimmer, Frankfurt-on-the-Main.

FROM the interior decoration of a dugout to the painting of a palace is not such a far cry as one might think. Our indiscretions sometimes serve us well when our deep plots,—well, it is dangerous this trying too hard. The simple is a deal the safer, because the complicated requires genius, and the flowering of genius keeps the calendar of the century-plant. A habitation excavated in the slope of a clay bank presents an interior surface like that of the Sistine Chapel, a proper surface for any angels to decorate. The illustrated papers reach the dugout earlier than cheap wall-paper, and their pages stick to the plain clay surface without fear of damp in that dry land. Some are satisfied to paste up the sheets as they come to hand, upright or topsyturvy, but others cut out and properly arrange the prints. There is taste even on the plains. Stepping in from the glaring sunshine to these interiors of silvery surfaces, white and grayish black, is always restful. If one could only say as much for parts of the Congressional Library, or the Chicago Public Library, our story would be shorter. The irritating noise of some costly painting shames an empty cart on a cobblestone pavement. I am saying this because, in general, the efforts

put forth in these buildings are cause for congratulation and a pleasure to see. Wherein they sadly fail is matter for study. The public, not able to discriminate, grumbles needlessly, though, possibly, justifiably. It is, after all, the public that must be pleased, and they have a right to dislike poison-spots. Are we, all things considered, able to produce a really fine, elaborate decoration?

A friend who collected colored prints, the sort published in English Christmas papers, pasted them judiciously all over an ample screen and then varnished the surface. The confusion was not as bad as a crazy quilt, and when the varnish mellowed, the warm tone quieted and united all colors. Some one suggests that time will tone the exuberance of the great reading-room of the Chicago Library. No doubt, as one of the products of Illinois is soft coal, and soft-coal smoke will tone all things, including our shirt fronts. This calls to mind the directions for painting in oils printed for amateurs: mix blue and red and a little black, or any other colors and a little black,—always that little black. Old Father Time is quite an amateur, and can't get the black little enough, in Chicago. Oh, yes, he smokes, of course! But sincerely this is the only room in this library to find fault with. The greater part is excellent. We have done it well in some of the New York buildings, even in hotels, and it is a great exemplification of our civilization—this decorating a tavern and doing it finely. But here again, the high climb risks the fatal tumble. There is a lobby opposite the park-entrance that pants with fever; probably the workmen tried too hard and got overheated. This large public room has a ponderous, elaborate ceiling and much rich color, but no fine tone, only painful effort. One asks, must all painting be put on the market raw, as tomatoes are, and must we wait for the ripening? Perchance it will be the other R. that will come to it. Must the painter be a patriot and work for posterity? And what if posterity will none of it and proceed to scrape off the faded deeds of their fathers?

Work done by trained artists seems to be beautiful and to endure. There are panels in Washington that call for no criticism that are truly beautiful; but the painted decoration degrades its good companionship. Most of that in Chicago is better than its grander competitor can boast of; and well it may be, because it was executed by one of the most important houses in New York, who employed their own workmen, and they seem to have been Englishmen. So then, to New York belongs the praise and the blame. Skilled workmen are not artists always, but the sins "over there" are less numerous than with us. They are raising up a mass of young students in the art academies, men who dream of the "R. A." eventually to grow to their names, but who can never get that appendix, and these are becoming skilled workers in applied arts, and usually have cultivated tastes. No doubt, we are doing the same, but it is to be doubted whether we are teaching in our academies the

nature of pigments and refined harmony in colors. Good taste above all else is the requirement. Let us hope that the folded wings of the army of aspirants will enclose a cultivated taste.

At the Congressional Library, standing in the centre of that really noble and beautiful stair-hall, one sees in the cloisters an upper and a lower series of vaultings and arches. Both are painted in panels by our best artists, and these are held together by conventional designs; those above excessively elaborate and done in oil-paint; those below in mosaic and rather simple in pattern. No doubt, all the conventional work is the performance of journeymen. Looking up through the framing of white marble and past the cool, tender mosaics, the eye is shocked. The designs are blue and green, buff and red (as are the mosaics), but heavy, ill-judged and offensive. Regarding any one of them, say Benson's panels in the south corridor, one sees beautiful cool, silvery, fresh-colored paintings and surroundings that crack the eye. It would appear that the different artists, one in each corridor must have something to say about his surroundings, because Benson's are much cooler than those of Pearse's or Shirlaw's, as his painting is cooler. The same is true of Reid's side, as his panels (apparently influenced by Claude Monet) are cool amid less hot decorations. These cooler panels are dainty, simple and altogether lovable. In the west corridor Shirlaw has used very strong tones. He observes the traditions of his Munich training and keeps the generous display of fresh tones so vigorous that no decorator could out-tone them. These are, however, the works of an experienced man, a school man, whom we sincerely respect, one who evidently knows his business and they keep well with the decoration of this entire corridor. His environment is much hotter than Benson's, the buff and blue of the latter here becomes a heavy green and over-done bread-crust: no, heavier than bread-crust. Whether fate intended to favor or kill him, it is a fact that Benson's panels do not "keep" as well as Shirlaw's, though I must confess that the cool panels are a wonderful relief in this over-cooked vaulting.

Where is the trouble to be found? Is it on account of the oil-paints? Can we not find some medium that will keep the colors tender? But the vehicle is, doubtless, the same in the artists' panels as in the journeymen's patterns and the panels are not choked and smothered. All artists know that there are ways of mixing and managing oil-paint that lead less to this heaviness than others. Certainly we need those disappointed art students up there on the scaffolding. The material has much to do with it: the mosaics in the lower vaulting are restful and tender, because of the material used.

The glass-mosaic in the main entrance to the Chicago Library is more brilliant than this stone-mosaic. It is the product of Tiffany (who did all the interior decoration), and is generally liked by the laymen. These same ignorant (?) laymen show much sense, if claiming no learning. But we will take this up another time. What now claims attention is painting. The greater part of it is better than inoffensive,—it is very satisfactory. Why then should the great reading-room act like an east wind and remind one of his appointment at the dentist's? This interior is finished in a very bold Renaissance, suitable to the ample space. With the architecture no one can find fault, as it is a good following of the style. The ceiling seems to be over-elaborate, has an air of effort about it, but the style is thus:—

The pilasters have upon their broad flat faces the usual Renaissance elaborations in pretty strong relief. These pilasters are painted a heavy green, a somber inelastic tone; the elaborations were laid in aluminium and washed with thin lacquer of a peculiar light yellow-green tone, poisonous,—gangrened. Why? and why again? Even the very boys talk about it. Are we to educate the youths to love such color? How could any superintendent of painters survey this complacently? Did vaulting ambition o'er-leap itself? It seems to be thus with every mighty effort, and the Congressional vaulting is almost as bad. There is a Venetian red around this "greenery-gallery" that does not help it,—a heavy red. The elaborate, massive ceiling is likewise in similar tones of green and red. The fault seems largely caused by the method and material. May time and soft-coal tone it!

Stepping down the northern marble stairs the soul takes courage. This is a warm, faintly red marble, less decorative but more friendly than the white marble of the great south entrance. There is much to discuss in these uses of marble, but to-day we talk of paint.

The G. A. R. Memorial Hall, a vestibule and a meeting-room (all spacious) occupy a part of the Library Building for a term of years. There is much green marble (*vert-des-Alps*), and bronze with Venetian red. The round-headed windows are very large, and panels and doors of similar proportions carry out the same treatment, being surmounted by arches. The deep green is richly-veined with white and is carried high up as a dado and as wide bordering to the openings and panels. Above is a very broad frieze in Venetian red. The ceiling is correspondingly massive and sufficiently elaborate, though less imposing than that of the great reading-room. Each of the blind arches is occupied by a bas-relief trophy group, painted in imitation of bronze and very well done,—quietly done. There are bands of real bronze, quite ornate, which follow the framings of the marble and accentuate well the shapes of all these openings and panels. These are fine castings and a credit to the building.

Though a trifle gloomy, this hall is harmonious and in excellent taste. Were it hung with flags and more furnished, as time will cause it to be, it might be counted a real success. Could the red

frieze over the green marble be painted by one of our good artists, like those grand halls in the Boston Library, the old soldiers would glory in it. Mr. Abbey caused the room in Boston, which he so wonderfully decorated, to be toned in a green much like this marble, and it accords perfectly with his vibrating paintings. *Vibrating* painting seems the crying need. The artists cause the oil-paint to shimmer while the journeymen seem to choke it.

There is now completed, at the Art Institute, a new room called the "Stickney Memorial." Mr. Millet, dean of the Architectural School, designed it. He has used a similar green marble for dado and door-frames, and has had the bay under the skylight painted in quiet, harmonious greens—which do vibrate—while the body of the wall is hung with a rich, red plush, whose changing tones suggest pomegranate. The skylight is of amber glass and flat overhead. A Greek fret, in gold embroidery, surrounds the red stuff. This room, so very like the other, is not gloomy at all, nor is it a question of lighting, as the G. A. R. Hall has unusually large windows, and many of them. That greens need not be somber is proved by the neighboring "Field Memorial Room" (Tiffany work), in ebonized wood, mottled-black mosaic dado, sage-green plush walls and a sage-green bay above. It is as perfect and satisfactory as possible.

The effect of mosaic as compared with painted decoration, the use of marbles, gold and bronze and their proper manner of marriage with the architect's work will furnish material for future writing.

JAMES WILLIAM PATTISON.

MURAL PAINTING IN ITS RELATION TO ARCHITECTURE.¹

A DEFINITION is a good thing to begin with, and I trust in this case a negative definition may be a still better beginning.

In the first place, mural painting is *not* the mere application of tints to architectural surfaces. Yet I venture to say that to many architects this whole question is a mere afterthought, left to the dregs of their appropriations of time and money.

Some architects would seem to consider it but a concession to the weakness of their clients; considering, themselves, that any interference with the whiteness of the structure is a thing to be regretted.

Under such haphazard influences, having passed through the gloom of the "black-walnut period," we seem to have emerged into an era of "white and gold," which has not inaptly been termed "the last resort of feeble minds;" it might otherwise be termed the first. Imagine St. Mark's or the Capella Palatina done in white stucco, with only the decorated members picked out in gold.

The color of a building is an important factor in its effect. And mural painting, as the application of color to architectural surfaces, is not a matter of caprice, still less is it of secondary importance.

In your use of architectural forms, you have a reason for their employment; precedent and the inevitable logic of new conditions influence your choice of details and the use you make of them. By no means the least of these details is *color*. In the form of your building, color bears much the same relation as it does to the human form; it distinguishes the living from the dead.

"So coldly sweet, so deadly fair,
We start, for soul is wanting there."

Byron was speaking of modern Greece; he might have been speaking of much of our modern architecture.

When I speak of the color of the human body, it is not of the application of artificial cosmetics to the complexion, but of the varying tints which play over the surface of the healthful body, not only differing according to the actual surface, but corresponding to the different play of the muscles underneath. In a word, the color of the human body is *organic*. Precisely so should be the color applied to architecture. Its values are threefold. Color should be *constructional* always. It is good if it is *expressional* also, and agreeable in *texture* and *tone*.

In regard to the constructional value of color, you recognize the principle in your exterior construction by your choice of materials. You continue to recognize it in the interior finish by the use of mosaics, natural woods and metal-work. Why then deny it to the applied color-treatment of constructive surfaces? If you do not deny it in theory you too often ignore it in practice. That which supports weight should have the appearance of sufficient strength to carry the weight. Trivial or flimsy color makes your solid wall appear to be so in reality.

You reduce stresses and strains to an exact basis, yet the color which clothes your construction receives but scant consideration. Certain architectural forms express clearly their purpose or origin; as the dome, its pendentive, the frieze and the lunette. The forms mean something in the building; the colors they bear must express that something or their meaning will be lost. The dome crowns the structure, and suggests the heavens which are above the earth; therefore, its color should relate to its structural form, and send it swinging farther up into the sky itself. The pendentives lock together the supporting arches, and in color should appear to be as solid and resisting as they really are. The frieze binds the whole together, and must be a ligature of color, as well as of structure.

¹ A paper by Mr. Elmer E. Garnsey read before the Thirty-third Annual Convention of the American Institute of Architects, November 15.

The lunette is a resultant form, and may be treated with much greater freedom in color than if it were a supporting form.

In the mural painting of the dome and rotunda of the Library of Congress the color scheme was based upon the various marbles used in the great order of piers and their connecting arcades. The piers are dark Numidian, standing on a base of dark Tennessee. The engaged column is of a lighter red. The two-storied arcade which connects the piers is built of rich tawny Siena. The capitals of piers and columns are of plaster, and all above this point is of the same material. The problem was to build up a constructional color scheme, with the colored marbles as the foundation. First, the groups of capitals crowning the piers were solidly gilded; then the entablature was treated in gold and gold-color, forming a cincture to bind together all the great supporting masses. The pendentives above the piers were painted a gray red, recalling the color and supporting power of the marble below. The arches in lighter tones of the Siena beneath them, and the secondary frieze of eagles, resting on the arches, and forming the drum of the dome, is again treated in gold. The inner surface of the dome is practically encrusted with plaster ornament, rendered in grey. Its coffers bear gold rosettes, relieved against a blue ground.

Considering the height of the dome, the blue in these coffers has been varied, in order to avoid monotony; and this has been accomplished, not by mixing the colors before they were applied, but by painting certain small mouldings that frame the coffers in yellow or red; so the blue in one section of the dome appears slightly greenish, while the next has a slight violet tone by the complementary contrast thus introduced. Finally, the collar of the dome is enriched by Mr. Blashfield's figure composition, executed on a blue ground. The whole is one of the largest interior surfaces treated in color in America; and the entire scheme is an example of the *constructional* value of applied color.

The second value we have claimed for color is that it should be *expressional*. Nor is this entirely a sentimental consideration. Our impressions are received through the senses, and certain colors create certain mental impressions or impulses. Mankind is not alone sensitive to these impressions, and for a pertinent, if not a perilous, demonstration of this fact, try waving a red cloth before the eyes of a healthy bull.

The blue of the sky dominates every fair landscape, and we associate it with vast space and soaring height. It has been associated with religious faith from the remotest times, and the roofs and domes of both pagan and Christian temples bear witness to the sentiment expressed by it to man in all ages. The green of nature is reposeful. It reminds us of the cool depths of the forest and the peaceful quiet of the country side. Yellow, the color of sunlight, is joyous and brilliant, and within its scale lies gold, always a human attraction. Absolute black suggests negation; it is sad to us, and we'll none of it. White, on the other hand, stands for purity, cleanliness of body and mind; and we associate it with angels and virgins. Red, as before suggested, is an exciting color, is associated with festivity and "a hot time." We shall appreciate its value in mural painting the better after seeing Pompeii.

The expressional value of color is also associated with local and climatic conditions. The peculiar and persistent atmosphere of Pittsburgh affects our color perceptions differently from the clearer environment of the coast cities. New England has a different complexion from the south, consequently demands a different prescription; while Old England and Italy are still farther apart in respect to color expression.

The third value of color includes *texture* and *tone*. What is called a "good job" of painting is infrequently a satisfactory finish for an architectural surface. Its smug perfection is inartistic. We resent the *paint*. Copy a tapestry—color for color, pattern for pattern—on a wall and hang the tapestry beside it. The one is tame and uninteresting, because it lacks the texture of the other.

In the Piccolomini Library at Siena, a series of inscriptions in gold on a blue ground runs quite around the room, just above the principal frescos, and above the stylobate, forming both a base for the paintings and a strong color band of great value. Mr. McKim desired to use the same motive in Bates Hall, in the Boston Public Library, but as no paintings yet existed in the wall-panels above, that might have suggested suitable inscriptions, and as in this instance, at least, no Bostonian would have been bold enough to suggest a description of something which did not exist, the flat painted surface, unrelieved by lettering, lacked interest. The problem was how to give these surfaces a suitable texture. It was solved by casting the panels, into which the band is divided, from a strongly marked bull's hide, giving the finished work the effect of painted leather. To answer your question, why not have used real leather instead of imitating it in plaster: the heat-flue openings occur directly behind these panels, and leather is not a good heat-resisting material.

But how shall we achieve texture in paint on a smooth wall? It certainly cannot be done by the ordinary methods of house-painting, nor secured through the usual painter's specification. Different technique and processes must be employed. Scumbling, or dragging an opaque color over the surface, and then glazing with transparent color, is one method; tricks and experiments, failures, and, finally, success, may be achieved by the expenditure of time and money.

Tapestry and leather are also expensive wall-hangings, and texture in color cannot be secured without proportionate cost, while it may be made as beautiful, in its way, as either of these, capable of

honorable association with the finest woods and marbles, and the choicest products of loom and needle.

The Romans had a high appreciation of the value of architectural color-decoration, and some consideration of the methods of Pompeian painting may aid us in the illustration of its principles. Many of even the smaller Pompeian rooms possess a wonderfully monumental character. There is little to be seen in them but the wall-paintings; the ceilings have disappeared, hardly leaving a hint of their construction. The mosaic floors are concealed by a layer of pumice and ashes; a few columns remain without entablature, and doors and windows are but crumbling apertures. Yet the scarred walls have kept their glories of color for eighteen centuries, and there exists the greatest academy for the study of mural painting in the world to-day.

The laying out of these wall-paintings is essentially architectonic in character and method. A dado or stylobate of dark color, grayish, brownish, or purplish-black, the main wall-surface panelled with the primary or secondary colors, the style and rail in white or yellow, and the frieze above in some pale color, white or gray. The general divisions were first laid on in broad, solid masses of color, then the ornament, foliage or figure subjects, were painted on them in a thick *impasto*, sometimes appearing to have been executed with a spatula, rather than a brush. Finally, the whole surface was rubbed with wax, and beautifully polished. These walls exhibit the value of color in its application to architecture in the relations under which we have been considering the subject of color. The color is constructional, it is frequently expressional, and its texture and tone are superb.

The ornamental forms with which the Pompeian walls are decorated do not always arise from their construction, but they are so invented and disposed that the wall is made beautiful, which is almost the best that can be asked of the mural painter. A sufficient suggestion is made of the structural character of the wall, but the painter did his work with the greatest freedom, not attempting to deceive us by a pictorial treatment, but preserved the vertical plane of the wall, while tracing upon it a pattern of perspectives, landscapes, or figure paintings.

Tone in mural painting is that almost indefinable saturation of the whole work that, like the atmosphere of Indian summer, melts the landscape into one delicious color impression. The first impression one receives in the Borgia apartments in the Vatican, painted by Pinturicchio, is that of an exquisite tone or bloom which pervades the whole. A dusty-gray purple and equally dusty and gray gold seem to have crept over the whole interior. Nowhere does one or the other become a dominant color-note. Everywhere they are both felt rather than seen. When we examine the technique of the painter we find that gilding has been carried through the entire work by such subtle means and by such rare judgment that there is almost a patina of gold over the painted surfaces and the ornamentation in relief as well. The architectural forms introduced into the backgrounds, the embroidered hems of the costumes, the details of armor, jewelry, and other accessories are modelled directly on the wall in slight relief, and everywhere this relief is touched with gold. Not only these, but the fruit on the trees, the flowers in the foreground, the distance, and even the sky itself have been brought under the same convention by carrying over them all a sort of diaper of little dots in relief, each of which is deftly gilded. By these means the eye is never allowed to receive an impression unaffected by gold. Again, by contrast with the dull yellow of the gold every other color is tinged or affected by the complementary of gold color, which is purple. It is by the judicious juxtaposition of complementary colors that this neutralized bloom is secured, and no painter who may be called a colorist can be ignorant of their value.

Mural painting is not only a question of color, but of pattern. And by pattern we mean any sort of breaking-up of spaces, by design; whether by lines, ornaments, or figures. Much confusion exists in the study of design. The painter studies from the figure; the designer studies ornament. The architect studies both, but not in reference to color. The whole matter of surface decoration becomes a question of pattern; and in taking up the subject, let us consider it under these three heads: *Pattern, Balance of Pattern, and Flatness.*

As soon as we leave unbroken planes and begin to cut them up in any way, by ornament, by figures, or by lines, we begin to work a pattern. The first condition that must be fulfilled on a painted wall is that it shall be an agreeable piece of color. Then, is it ornamental? Does it cut up into a good pattern? Then, what is it all about? What are the names of all these gods and goddesses? Unfortunately these questions are usually reversed. Take Sargent's work in the Boston Public Library. It has been criticised as confused. The first impression we receive in looking at it from the top of the staircase is of a rich brocade. It is a splendid piece of color hung in the shadow of a vault. Then, as we approach, a sort of intricate pattern in red and gold appears, and then we find that this is really composed of groups of figures; vast wings and strange emblems, shadowy forms of pagan birds and beasts. If it appears confused it is because the artist has delved into the mysterious religions of the past, and has expressed in his work the confused ideas of religion that then prevailed. There is no confusion of design when he represents the simple truths of our religion in the frieze below the lunette. The line of prophets is as majestically simple as a row of columns.

The use of the human figure in the pattern is valuable as a part of that pattern. The beauty of the pattern is not entirely dependent on

the figure. A wreath or cartouche is equally valuable if properly used, and architectural motives, landscapes and geometrical forms each have their value and place in good pattern-making.

The second consideration of pattern is *balance*. Balance of empty spaces with detail; of color with form, and of ornament with simplicity. In Mr. Vedder's lunette called "Rome," in the Walker Art Gallery at Bowdoin College, the architectural background is not only valuable as a ground against which are displayed figures and symbolical devices; its balanced masses and central opening give symmetry and restfulness to the composition. And the principal figure with its supporting groups are studied not only for their own fine contours, but for the shape and size of the spaces which occur between and about them. Indeed, no work by this painter lacks the keenest perception of balance of pattern, whether it be in mural painting or in book illustration. The lunette form especially demands balance of pattern and stability of design. Its decoration should not appear as a procession that moves across it, emerging, apparently, from the frame at one side to disappear at the other. The frieze is the place for the procession. Its form demands treatment which shall suggest continuity or repetition. That of the lunette an arrangement that shall be complete in itself. For the wall that ends a vaulted ceiling stops the succession of arches or vaulting, and its design must express stability. An interesting comparison of figure-patterns applied to the decoration of lunette forms may be made between the work of Messrs. Melchers and Cox in the Library of Congress, where in identical spaces they have proceeded upon opposite theories of design.

The Abbey decoration in the Boston Public Library can hardly be considered a successful example of balance of pattern. In the first place, it is a frieze broken into a series of panels of arbitrary lengths, the reason for which is not obvious. Such divisions of a continuous surface, without architectural reasons for their existence, are at once disturbing. There is no balance of decorated and plain surfaces in the individual panels, nor is the same general plane carried along over the painted wall. As illustrations of the Holy Grail legend they are interesting pictures; as mural paintings they lack relation with the architecture.

On the other hand, the work of Chavannes, in the same building, relates very closely to the architecture. As color, it harmonizes perfectly with the marble which frames it. As pattern, it is in scale with the architecture, and a fine balance runs through the whole series. Landscape plays an important part in Chavannes's pattern. The rocks and hills, sky and water, masses of earth, trees and buildings, serve in the making and balance of the pattern, quite as well as the human figures. In one panel sea and sky balance each other. In another an unbroken mass of sky is contrasted with a mass of flower-broidered earth. On the long wall the principal line is that made by the Muses ascending toward the genius in the centre. These figures are not disposed in perfect symmetry, yet they do maintain the requisite balance, and their general trepid triangulates with the central doorway.

Another equally valuable example of balance of pattern may be seen in LaFarge's "Ascension" in the Church of the Ascension, in New York. The disposition of landscape, masses of clouds, and of angels above and disciples beneath, create perfect balance of parts, and the placing of the figure of Our Lord, at the exact point where it dominates the whole, although this is not the actual geometric centre of the space.

The third consideration of pattern is *flatness*. The word does not perfectly express the subject, which includes the much-discussed question of the wall as a solid and unpierced plane. The stricture is frequently made that the mural painter makes holes in the wall. There is no law, however, that defines how much flatness is desirable, nor are there rules as to how it is to be obtained. Absolute flatness and entire disregard of modelling would be wearisome to both the eye and the imagination. Absolute disregard of the wall as a constructive surface is equally offensive to the reason. Giotto's style is sometimes cited as the ideal technique for mural painting; but it must be remembered that Giotto painted in the way he did, because he knew no other way. Nor are the conventions of Japanese of much greater value to the painter of to-day. The landscape painter seeks to destroy the actual vertical plane of his picture by leading us insensibly off into his aerial distances.

The patterns of primitive peoples are perfectly flat, and at the same time quite incapable of inspiring lofty imagination.

Referring to the Pompeian walls, we often find a sort of linear perspective employed in their patterns. There is no attempt at actual illusion, yet in those small rooms the effect of these devices is to give us some suggestion of breadth. We are not led out through the wall into out-of-doors, but some impression of the outer world has been brought in to us.

Architectural forms, when treated in the grand style of Raphael's "School of Athens," do not offend us by any undue suggestion of extra-mural nature. That noble vista of arches, while it stimulates the imagination, is no panoramic or illusive background.

It would seem, therefore, that while linear perspective may be reckoned as of much value in mural painting, aerial perspective had better be left to landscape painting.

The treatment of the figure in regard to flatness of execution opens up a still wider field of discussion; as precedents may be found for almost any degree of modelling, from an absolute silhouette to the frankest naturalism.

Some painters satisfy themselves by using a strong outline around the figure, which is so evident a convention that it flattens everything within its boundaries, and allows sufficient modelling in a lighter key to express the action of the figure. The difficulty they encounter is that the strong contours thus obtained do not always form an agreeable pattern, and the gain in one quality is at the expense of another.

Perhaps some study of the sculptor's technique might be useful to the mural painter, especially of such work as the low-relief decorations of certain Roman vaults and tombs. The contours are strongly marked in some places where the tool has cut deeply into the fresh plaster. Again, there is no line at all where the figure emerges from the ground, and its contour is entirely left to the imagination.

There are many ways of achieving beautiful results, and general principles, rather than dogmatic statements, should guide us.

In conclusion, I beg to recapitulate the propositions under which the relations of mural painting to architecture have been considered:—

First.—That color shall be treated with the same seriousness accorded to form.

Second.—That it has these essential values: constructional, expressional, textural and tonal.

Third.—Color is beautiful in itself, without ornament.

Fourth.—If design or pattern be introduced, it must be architectonic, and not pictorial in character.

Fifth.—The essential characteristics of pattern are three: pattern as such, balance of pattern and flatness.

THE LEGITIMATE DESIGN OF THE ARCHITECTURAL CASING FOR STEEL SKELETON STRUCTURES.¹

IT has become a trite saying that the world moves rapidly nowadays, but in hardly any department of human industry is this more true than in the development of the idea and assimilation of processes of skeleton construction as applied to modern buildings. In its fundamental sense this method of building is old as architecture itself. In its application to a many-storied structure, it is entirely of the present day, and almost of the present decade. Skeleton construction was mothered by necessity, and found architects unprepared. Consequently, the first attempts to carry a building through many stories, employing the post-and-girder construction within and without, were hardly what may be termed successes. But although it is less than twenty years since the first perfected structure of this type was put before the world, it is fair to say that the methods of design for tall structures have crystallized into lines which are both logical and rational, and which have been very generally accepted. In this respect our modern tall office-buildings have shown what can fairly be termed a true development of style, and in this respect it seems fair to say that they can rank with the productions of the great building periods of the past; for the typical design for an early Christian church, a Greek temple, or a Gothic cathedral, was hardly more fixed in its general essential characteristics, in the division of parts, the scheme of design, and the essence of the decorative treatment, than our modern commercial buildings. Rightly or wrongly, if we may fairly judge by the majority of tall buildings which have been erected of recent years, there is a distinct principle involved in architectural design as applied to a building of ten stories and upward. This principle is so logical and commends itself so thoroughly to one's judgment that, however much we may differ as to matters of detail or characteristics of individual style, or however much variance of opinion there might be as to the inventive qualities manifested, it is surely acknowledged that there is a right and a wrong way to design a tall office-building.

If I recollect rightly, the first of the skeleton-constructed buildings—namely, the Home Life Building, Chicago—was built of cast-iron columns, extending only through a single story. In other words, it was a regular post-and-girder construction, in its essence comparable to a series of square tables placed one upon the other. The design of the exterior followed the same scheme; that is to say, each story—I am speaking from memory now—each story was by itself, with string-courses marking all the floor-levels, and a succession of similar stories piled one upon the other without a very marked proportion between the whole height and the individual parts. This was the early scheme adopted and was the style which has been followed practically in all the buildings of a date previous to 1880. It was constructed essentially from an aesthetic standpoint that the floor-lines should be marked on the exterior by a projecting course, and while the buildings were of relatively low height—that is to say, not over 100 feet high, this scheme presented certain advantages, and was an easy if, perhaps, not altogether satisfactory solution of the problem. Only rarely in the earlier designs was an architect bold enough to attempt to omit an occasional floor-line, and run a decorative treatment, either pilasters or plain wall-surface, through more than one story. I well remember a severe criticism which I received from one of my building masters who attempted to curb my inquisitive desire to incorporate in a design the features of the Museum of the Capitoline Hill, which Michael Angelo designed, with pilasters extending through two stories, a treatment of only slight height, in fact, but carried through the whole height of the building.

About the time that the skeleton-construction was taking shape in the West a different scheme of design for the exterior of a tall building was started by the De Vinne Press Building, in New York. This building followed what might be termed the aqueduct style, and in a certain sense was a transition between the post-and-girder style, where each story is projected, and the present, in that several stories were thrown together and connected by heavy arches at certain floor-levels. This aqueduct style has found a great deal of favor at the present time, and, with several modifications, has been incorporated in some of our best buildings. It is found in the New York Life Buildings, Kansas City and Omaha; in the Times Building and the Trust Building, nearly opposite Trinity, in New York, and in a number of other structures. In the later buildings, however, it merges into a feature of the whole rather than a predominating motive. The trouble about it is that an arch is not, generally speaking, a desirable factor in any commercial building. The skeleton-construction was an outcome of a stern practical necessity, and the design which best suits this construction is one which gives the maximum light, and, consequently, a big arch, however imposing it is admittedly as a feature of the building, is not the most suitable form for an office-building measured by the effect on the outside.

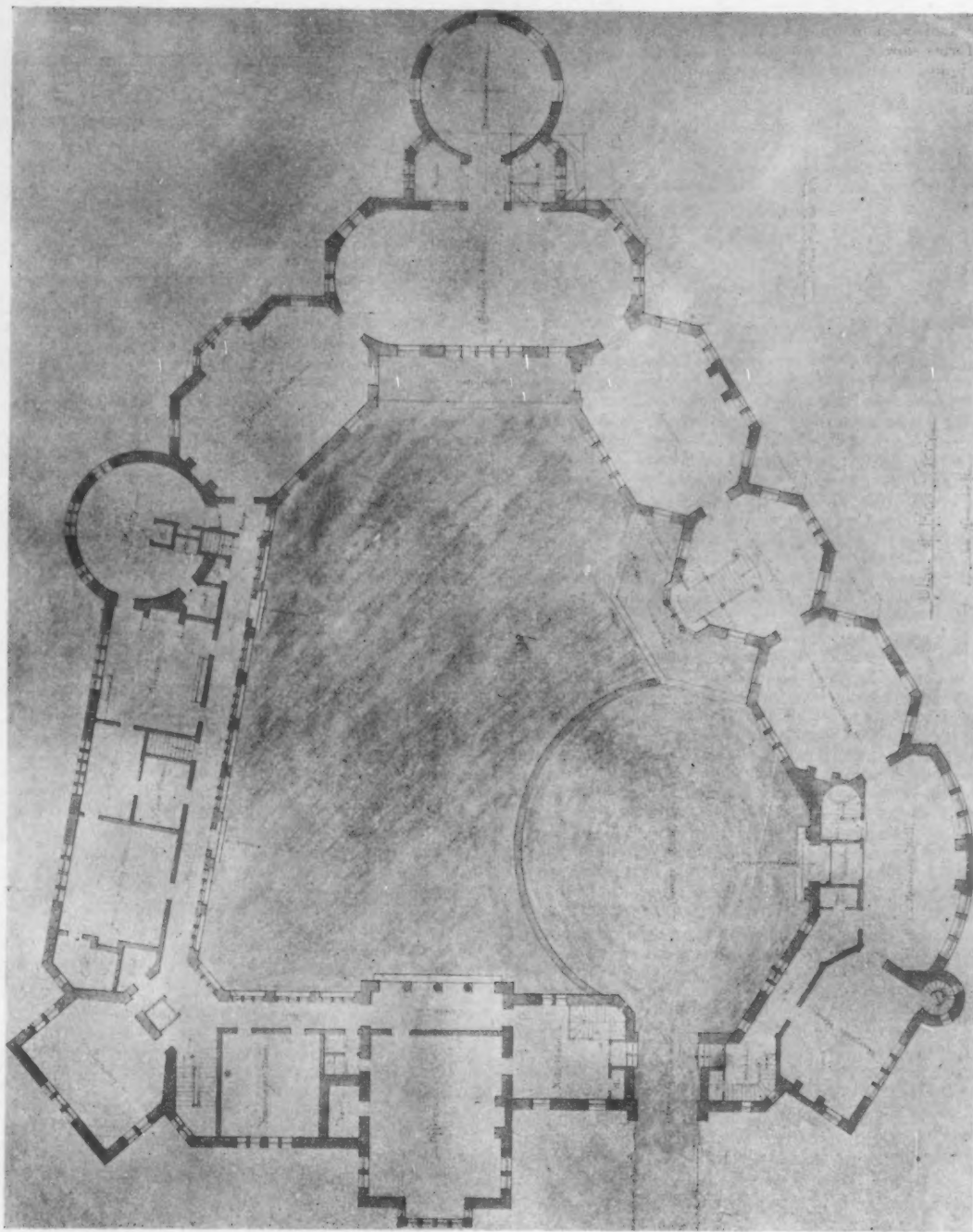
Neither the so-called post-and-girder nor the aqueduct style has seemed to just fit satisfactorily into the design of a building reaching up through twelve or more stories. The monotony of repeating row after row the numerous floor-lines, the difficulty of getting a proper feeling of scale for the building as a whole, added to the impossibility of capping the structure with a cornice which shall have any fair proportion between the order for the story immediately beneath it and the whole building, have led to what can be termed the columnar form of design, in which the building is treated as a whole, with hardly any attention given to the window openings as such, the façade being constructed in much the light of a column and being given a strongly marked base, a plain shaft, and a rich crowning capital. This form is, perhaps, more emphatically manifested than in any other way by the strikingly successful design made by Mr. Bruce Price of the Sun Building, published in architectural papers here and abroad, which has never found realization in effect, though a very similar treatment, and no less successful, was wrought out by Mr. Price in his design for the American Surety, which structure, perhaps, can be taken as fairly as any other one building in the country to represent the present attitude towards the design of a high commercial building. The base in this building, extending through several stories, is very marked, is proportioned to the whole structure, and above this, through a dozen or more stories, the wall is in effect perfectly plain, with no emphasis about the windows, and though, undoubtedly, the spacing and exact size of the windows do count, they are of necessity neglected and are mere holes placed at perfectly regular intervals in the wall. And the whole building has a magnificent crown proportioned not to the height of the story but to the height of the shaft as a whole. Instances might be cited from all over the country from what is practically a similar treatment of design for tall buildings, showing that though differences from point-of-view may be as wide as that which marks the difference between the excellent work of Mr. Sullivan, of what we might perhaps term the extreme impressionist school, and the work of McKim, Mead & White, which adheres to the Classic conditions, yet the essential principle which seems to be most in favor with all these high buildings is to treat the façade not as an aggregate of individual units, not as a spacing or grouping, or combination of openings, but as a whole treated as a whole, and with all the decorative members proportioned to the whole height, the richness being concentrated at the bottom and the top.

It might be said, with a certain degree of truth, that all I have said applies to a high building rather than to a steel skeleton-construction, and that I am avoiding the real point at issue. As a matter-of-fact, however, it is doubtful if the present scheme of design for tall buildings would ever have been evolved except as the opportunity arose in connection with the structures which were extended so far beyond anything that was dreamed of in the old ante-elevator days. Possibly the thought of the committee which made the selection of this topic on construction was a somewhat deeper one than I have thus far touched upon, and involved more the question of fitness of the individual style rather than the scheme of the design as a whole. In other words, are we to-day clothing our architectural forms, especially in our high buildings, with the right kind of ornament? Or, to embody the thought of the extreme eclectics in design, are we following the path of righteous and safe development when we adhere even indirectly to the forms we have inherited from the Classic and Renaissance period, or should we, rather, break away from the precedents of the past and attempt, as we develop a new construction, to at the same time develop a new overcoat for our architectural thoughts? This involves a consideration of what constitutes legitimate design. Illegitimacy, as we all know, is defined as unrecognized parentage. Measured by this definition, the Romantic school of to-day may have parentage, but certainly not ancestors, whereas the most truly legitimate of all architectural designs is the one which has survived, in its various modifications, through the wreck of the Roman Empire, the untoward influences of the Vandals and the Goths, and has come to us strangely modified, perhaps, wonderfully tortured in some details, but still intact in spirit after all the scathing modern episodes of the Neo-Greek, Eastlake, English Gothic, to say nothing of our own vernacular. It is a pretty

¹ A paper by Mr. C. H. Blackall read at the Thirty-third Convention of the American Institute of Architects at Pittsburgh, November 15, 1899.

safe rule in this world, when you want to do a thing with the least trouble and the greatest probable chance of success, to first of all find out how other people have done it and how they have succeeded. Styles change, or, rather, the fashion of architecture is not a permanent one. In the last twenty-five years the whole aspect of the profession towards architecture, in its decorative sense at least, has been completely changed and we are now admiring the kind of work which a score of years ago was contemptuously cast aside. Are we then to suppose that the present style, if I may so designate the Classic and Renaissance revived vehicles, is also to pass as some of us trust the extreme *fin-de-siècle* French manifestation is passing?

way shall be peculiarly metallic, and peculiarly *sui generis*. Now there is no disputing in matters of taste, and I might argue from now to doomsday to prove that the Renaissance mantle is the proper design to be applied to a skeleton-construction without convincing any one who thought differently. But I entirely fail to see any lack of appropriateness in using for our own the motives from the past, and though it is very easy to charge against our present architecture that it is effete, lacking individuality, the same might be said of our language or of our methods of arithmetical notation. The changes in our architecture have kept pace pretty fairly with the changes in our speech. Both derived their roots and many of their forms from



"House on the Rocks." R. H. Robertson, Architect.

Undoubtedly, the fashion will change, and yet it seems to me that an artistic expression which has found favor with the greater proportion of the civilized world ever since the year one, has the best chance of long life and continued prosperity; and if we are to take an individual style, we are safer in following pretty closely the lines of Classic architecture and Italian Renaissance, and there is more hope for a good copy than there is for a bad original.

But some of the purists tell us that it is absurd on the face of it to borrow the motives from the three and four story Italian palaces and apply them directly to structures which soar up into the scores of stories, and they would have us cast aside tradition, and, by a species of making the punishment fit the crime, cover our gaunt and ugly skeleton of steel with something which in a mysterious, unheard-of

the past, and that fact in nowise militates against their use. There are certain fundamental forms which have marked the progress of architecture ever since the Beni-Hassan rock-cut temples. They are just as applicable to-day as they were centuries ago. The column long ago ceased to be purely a constructive member. The Greeks, with all their stickling for purism, did not hesitate to simulate in a facing of stone the post-and-girder construction of their roof carried out in the triglyphs and metopes. Nor did they feel any æsthetic sin in marking the ends of their walls with an engaged pilaster which was not a constructive necessity, and though it is very easy to argue that a column is always a column and is not properly used unless it actually supports something, it is also equally fair to claim that the column and the pilaster have their distinct decorative functions quite

aside from any structural necessity and that the end justifies the use of these features when they merely serve their decorative purpose. If we were to simply transplant our pilasters and stick them around promiscuously on the face of a twenty-story building, or should even go to the absurd extreme of running these same pilasters through many stories and crowning them with a classically proportioned cornice, the absurdity of such a treatment would be too manifest to require comment. The past decade has seen the evolution, we believe, of the Classic column, in modified proportions and in varying proportions, which has enabled us to use this most effective form of architectural adornment as applied in our tall buildings. In the very nature of things, we cannot construct a building which shall show its skeletal construction inside and outside except by inference. Our reason tells us that most tall buildings must be constructed with columns, concealed with masonry. We get accustomed to some architectural forms slowly. In a wooden house, for instance, we feel quite safe in ignoring all the construction, running our clapboards around the building as though such a thing as studs did not exist, and after carefully studding up the walls of a house we will plant on the outside some imitation half-timbered work without causing a very serious wrench to the feelings of our pure-minded friends.

After all, I confess that, in matters architectural, I am a good deal of a Jesuit and believe that the end justifies the means. The first essential requisite of an architectural structure, according to my mind, aside from matters purely of strength and stability, is that it shall be beautiful; beautiful in the fullest meaning of the word, the beauty which results from proportions which please even if they cannot be subtly analyzed, beauty which satisfies the trained mind from its coherency, and beauty which will endure through at least the life of the one who created it. I am not arguing that the tall building of to-day is an altogether desirable feature of modern civilization. It is an outcome of necessity, and there seems to be more reason to believe that our buildings of the future will be higher rather than that they will be lower. It is with us, and some of our architects have been able to demonstrate beyond question that it is possible to create a tall building in a thoroughly architectural manner which shall present a thoroughly pleasing ensemble, and the details, after all, will take care of themselves. And the question of absolute fitness of Renaissance, of the Gothic, Richardsonian or Sullivanian need not trouble us half so much as the question of whether the completed building is yet architecturally beautiful.

But I feel I am wandering again from the exact limitations of my subject, and so to save myself I will recapitulate what, as a matter of individual personal feeling, I can safely affirm as my architectural creed among these buildings. First, the most successful type of design is one which treats the front as a column with a marked base, square edged, rather small windows spaced regularly over a plain shaft, and a rich, blooming capital, proportioned to the height of the whole building. Second, the safest vehicle for expressing the ornamental details of a building is the Classic or the Italian Renaissance, because it is a style which was evolved under conditions much similar to our own, and it is one which affords infinite variety in mass, and the utmost delicacy and beauty in detail. And, finally, third, no matter what we do, if our hearts be true and our buildings beautiful.



[Contributors of drawings are requested to send also plans and a full and adequate description of the buildings, including a statement of cost.]

CHAMBER AND PARLOR MANTELS: "MAPPA." HOUSE OF W. S. WICKS, ESQ., TRENTON, N. J. MESSRS. GREEN & WICKS, ARCHITECTS, BUFFALO, N. Y.

[Gelatine Print, issued with the International and Imperial Editions only.]

AS the parlor mantel here shown is only a few years old it was not proper to include it with the other views taken at "Mappa" which will be published in Part V of the "Georgian Period." The chamber mantel dates from 1804.

"THE HOUSE ON THE ROCKS": TWO PLATES. MR. R. H. ROBERTSON, ARCHITECT, NEW YORK, N. Y.

THESE drawings picture not the mere workings of the designer's fancy, but a structure now nearly finished at a place on the New England coast, and show how one owner at least has materialized the airy castle of his boyhood's dreams.

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[The following named illustration may be found by reference to our advertising pages.]

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[Additional Illustrations in the International Edition.]

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CORONET THEATRE, NOTTING HILL GATE, W. LONDON, ENG. MR. W. G. R. SPRAGUE, ARCHITECT.

A CORNER OF THE QUEEN'S TEA-ROOM: THE HAGUE, HOLLAND.



ELECTRIC HEATING.—The new Carmelite Hospice on the Canadian side of the Niagara Falls is provided with complete electric heating and cooking apparatus, and the following description of the installation, taken from the *Electrical World and Engineer*, is printed in *Science Abstracts*: "Three-phase current at 2,200 volts is carried on No. 3 bare copper-wire from a supply-station distant two miles. It is transformed to 110 volts by two 30-kilowatt and one 25-kilowatt transformers at the Hospice. A switch-board, with double-throw switches, controls two phases of the current, and the third phase is controlled by an adjacent switch-board, and is used for cooking, lights, etc. Power amounting to 100 horse-power is taken by contact, 25 horse-power of which are used for lighting (200 16-candle-power lamps), cooking, and heating water, while the remaining 75 horse-power is applied to heating the lower floor, containing eleven bedrooms, dining-room, reception-room and corridor. Each bedroom is 15' x 12' x 10' high, and contains one 4-horse-power heater, with two heats. The corridor is 120' x 15' x 10' high, and contains nine 4-horse-power heaters. The kitchen contains one electric range and three ovens. The range has 6 square feet of heating-surface, each square foot consuming 15 amperes, and having a two-heat switch. The small ovens take 23 amperes at 110 volts, and the large one 50 amperes. Four 25-pound roasts can be handled at one time. The pantry has three 5-gallon electric urns for tea, coffee, and hot water. Close to the switch-board are two electrically-operated boilers, one holding 400 gallons and the other 150 gallons. The former, which supplies the laundry and baths, takes 120 amperes and has three heats. The latter supplies the kitchen, and takes 125 amperes, being principally used for quick boiling. On the opening day the kitchen electrically cooked dinner for 250 people. The big boiler will heat water from 60° Fahr. to 212° Fahr. in six hours. The small ovens bake bread in 18 minutes. The large oven is furnished with a thermometer. The current for water-heating, cooking and lights costs \$25 per horse-power, or \$625 a year, while the 75 horse-power used in warming the building is secured at about one-fifth of this price per horse-power. The plant, as a whole, requires little care for its operation, and gives great satisfaction."

PHOTOGRAPHIC SCULPTURE.—Herr Selke, a German inventor, has patented a new photographic method of forming high-relief photo-sculpture. The method is rather complicated, but is wonderfully effective. The model is seated on a chair, surrounded by a mysterious-looking apparatus. At a short distance away there is an arch of electric lamps, one above the other, the light being softened by the use of light-blue glass. Nearer the model, and rising over his head, is a second arch of photographic plates, a few inches wide, and connected together by joints. This nearer arch can be moved forward by a mechanical contrivance connected with the photographic apparatus erected in front of it, and is intended to throw a shadow from all three sides on the model. As it moves forward, the long sensitive film used for instantaneous photographs is moved behind the glass of the apparatus by the quick turning of a winch in the dark interior of the camera. This shadow produces an unbroken series of so-called "photographic cuts" of the model, from which continually decreasing undarkened parts are fixed on the film at the rate of about fifty within a few seconds. When that has taken place, the sitting is at an end. These photographs are enlarged on cardboard, each being then accurately cut out with a fine saw. They are laid one upon another at the same distances as the first profiles and firmly fixed, so that the whole series of all the photographs of the model are pasted up one upon another stepwise. As these steps are very low and flat, they are hardly perceptible in themselves, and the whole gives the impression of a relief similar to the original model. This is then covered with a viscid stucco-like material and the mould is ready for slight finishing touches with the modelling tool. The photo-sculptures which I saw to-day at a public exhibition are excellent, and very like the originals. — *Berlin Correspondence* (October 10) *London Standard*.

PUMPING OUT THE HUDSON RIVER TUNNEL.—The task of pumping out the Hudson River Tunnel, on which work has so long been suspended, has again been begun in Jersey City. This resumption of work at the Jersey City terminus is accepted as an indication that the funds with which to continue the construction of the tunnel will soon be secured. The property was sold last June, under foreclosure proceedings, by Randolph Parmley, as master in chancery, and ever since then a number of English capitalists have been interesting themselves in the project. Eight men were at work at the mouth of the tunnel, foot of Fifteenth Street, Jersey City, putting things in readiness for further boring. — *N. Y. Evening Post*.

THE AMERICAN ARCHITECT AND BUILDING NEWS

ADVERTISERS' TRADE SUPPLEMENT.

No. 211.

SATURDAY, DECEMBER 2, 1899.

VOLUME LXXI.
No. 1.

INSTANTANEOUS HEATING OF WATER, AND ITS REQUIRE- MENTS.

We beg to call to the attention of American architects a new condition which has been presenting itself for consideration for the last three and one-half years.

The present system of heating water for domestic purposes, viz, the storage tank in its various shapes, is gradually giving way to the "instantaneous, automatic" system of heating water for private and public use. As the instantaneous water-heater advances the circulating or range boiler must give way, and in time will necessarily become a thing of the past. It would be useless to suppose that the consumer of hot water for the bath will be satisfied to wait for one-half to one and one-half hours on a supply of hot water, when the same can be obtained in one-half to one and one-half minutes.

In the City of Pittsburgh alone there are some thousands of instantaneous water-heaters in operation, while every prominent city in the United States has some few; and satisfactory progress is being made at all points, indicating a speedy development of the new system within a period of very few years.

There is one very serious difficulty to overcome in the instantaneous water-heating system, and that is, the want of flue service extending down to the basements of all buildings, with few exceptions, up to the present time. In a private residence it very frequently occurs that there is but one flue extending down to the basement, at most two; one for the furnace, another for the laundry stove. As there will be a new claimant for flue service, viz, the instantaneous water-heater, we would respectfully call your attention to the fact. Where but one flue is to be found, it is usually taxed to its full capacity by the furnace.

The instantaneous water-heater necessarily requires ample flue-service, as the work it accomplishes is very large, viz, what is usually termed a "No. 1" Monarch heater will heat four gallons of water a minute, or 240 gallons an hour. In order to obtain proper combustion for the requisite amount of fuel to perform so great a task, it is necessary to have a large flue service. As a result, proper and economical combustion will be obtained. It is bad practice to conduct two stoves or heating apparatus of any kind into one flue. It is much worse practice when either of them is sufficiently large to demand the entire capacity of said flue. Indeed, a superfluity of flues extending to the cellar cannot at any

time be objectionable when the sanitary condition of the building is taken into consideration.

We believe the architects of the City of Pittsburgh already realize the necessity of satisfying this new claimant and providing the necessary conditions for its future existence. We trust, furthermore, that architects everywhere will kindly take up the matter.

We should be pleased to see the matter further discussed in the columns of the *American Architect*, as it is a question well worthy of close investigation. The City of Pittsburgh rightly claiming the honor of being the birth-place of the system of Instantaneous Automatic Water Heating, the architects thereof are fully competent to discuss the necessity and importance of the proposition of the Monarch Water Heater Company, "The Pioneer in Automatic Water Heating."

MONARCH WATER HEATER CO.,
PITTSBURGH, PA.

TEST OF METAL LATHING.

REPORT of an interesting fire-test of metal lathing, as copied from *The California Architect and Building News*, published January, 1898, at San Francisco, Cal., in which the Bostwick Steel Lath, manufactured at Niles, O., played a very prominent part:

On Wednesday, January 26, 1898, an interesting test was made at Wells, Fargo & Co.'s new building, designed to show the relative merits of different kinds of metal lath on wooden studs as a protection from fire—and incidentally to test a variety of cements, concrete and metal partitions.

Under the direction of G. W. Percy, of Percy & Hamilton, architects, a furnace had been built of brick, 4' wide, 8' long, 2' 6" high above the grate-bars with 1' space under the grate-bars with air inlets all around.

In the sides of this furnace were inserted six panels 12" x 20" of various types of metal partitions, while the top of furnace was 3" thick, of cinder-concrete made in the proportions of one part Alsen's Portland cement, two parts sand and three parts of fine cinders. For one-half of the top expanded metal was imbedded in the concrete, and the other half had $\frac{1}{4}$ " twisted iron rods placed 3" apart. Over the centre of the furnace was a chimney 3' x 3' and 8' high, built with 2" x 4" O. P. studs with 2" x 4" plate and sill, and with 2" x 4" bridging all around near the centre of height. In the centre of each of the four sides the studs were placed 16" on centres; as is usual in frame buildings, the corners were formed with 2" x 4" studs.

Each of the four sides was covered with a different kind of lath by the men representing them.

At the bottom the metal laths extended back about 4" on the under side of the concrete and nailed to it, while at the top it covered the top of plate.

The plastering was applied by a disinterested plasterer in the usual manner of good three-coat work of ordinary lime mortar, while some of the metal panels were plastered outside and inside with lime mortars, some with Alsen cement plaster and some with King's Windsor cement.

It was intended to test four different kinds of metal lath in the chimney, but the representative of one kind became dissatisfied and wished to prevent the test being made and strongly objected to its being considered a test of his lath, therefore no further mention will be made of that one.

The three varieties that may be considered to be fairly tested were: Roebbing's Stiffened Wire, the Bostwick Steel Lath and the Expanded Metal Lath.

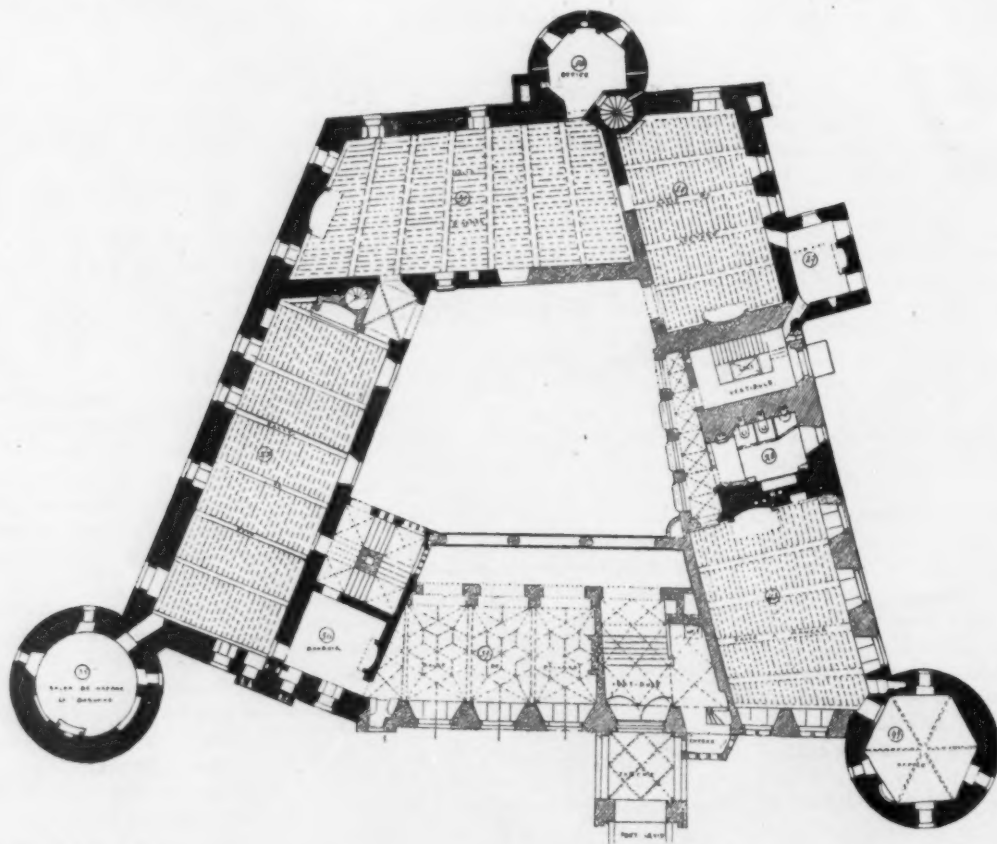
The lower end of the chimney was further protected with steel lathing nailed over the three coats of mortar and extending about 8" up on the studs and 6" under the concrete. This was plastered on two sides of the chimney with Royal Cement Plaster, on one side with Anti-Caloric Boiler Covering and on the other with Alpine Cement Plastering. The whole had been fairly well dried, when at 9.30 A. M., a small fire was started with dry kindling and a light fire was kept up until 10 o'clock, when a hot fire was made with dry Manzanita cordwood, fed in from both ends of the furnace. From this time on a hot, roaring fire was maintained, with the flames at times extending two or three feet above the top of the chimney.

At 10.30 A. M. the brick furnace was cracked on both sides near the centre, also the concrete top on each side of the chimney and over the crack in brickwork. The cement top, which had been loaded with 275 pounds to the square foot, now showed some deflection, while hot steam was being driven from the green lumber forming the chimney.

At 10.45 A. M. the studs were scorched in places on each side and it appeared evident if the lumber was dry it would take fire.

The first fire on the frame occurred at 10.47 and at the cross bridging on the Roebbing side. Fresh mortar was applied on the outside to stop the fire, and about five minutes later, or at 10.52, fire started on the side lathed with

(Continued on page 3.)



From *The Builder*.

PLAN AND DETAILS: CASTLE OF HAARZUYLENS, HOLLAND.

Atlas PORTLAND CEMENT

Guaranteed to be Superior to any Imported or Domestic Cement.

Used Exclusively in the Following New York Buildings:

HAVEMEYER BUILDING

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AMERICAN SURETY BLDG.

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N. Y. LIFE INS. BLDG.

STANDARD OIL BLDG.

Atlas Cement Company

143 LIBERTY STREET
NEW YORK

the Bostwick Steel Lath, which was also extinguished with mortar; at 10.58 fire started on the Expanded Metal side and was likewise extinguished.

In no case had the plastering fallen from the laths and the hot fire was maintained for 45 minutes longer, when the frame being practically burned out, water was turned on from a garden hose, the fire extinguished and the chimney pulled down. The plastering freed itself completely from the laths in the fall.

The cement top, which had deflected about $\frac{1}{4}$ " with the heat and load, recovered itself to within $\frac{1}{16}$ " of a level line when the load was removed and the concrete cooled with water.

All the panels on the sides of the furnace retained a large portion of the plastering on the inside, while the outside showed no signs of injury. [These were samples of $1\frac{1}{2}$ " solid partitions made with metal lath.]

This test was witnessed by several prominent architects, a representative of the Underwriters and one of the Fire Wardens—and while it may not have satisfied any one as to the superiority of one kind of metal lathing over another it did show conclusively that any one of these metal laths, if properly put on and properly plastered, will withstand an intense heat for a long time.

The following pointed editorial was clipped from the well-known magazine, *The Builders' Weekly*, published at Worcester, Mass.

METAL LATHING.

There are many architects, builders and large property-owners in New England who do not realize the growing popularity of metal laths, the reason for this being economy. The use of metal laths around stairways in business office-buildings does away with much brick-work, thus saving money. The use of metal laths in all walls and ceilings in Worcester makes a third-class building rank as second class, and the same is true in many other cities. While the liberal use of these laths adds something to the first cost, lower insurance rates more than offset the difference in cost. There is, as an illustration, a metal-lathed building in Worcester on which the fire-underwriters gave a concession of 5 per cent in insurance rates. Metal laths are especially appropriate for large apartment-buildings, and the demand for their use is rapidly increasing. The price of metal lathing is not high, competition being brisk.

Bostwick Steel Lath is superior to all others and costs less.

Write for samples and prices.

BOSTWICK STEEL LATH CO.,

NILES, O.



The C.T. NELSON CO.
COLUMBUS, OHIO.
WHOLESALE MANUFACTURERS OF
VERANDA COLUMNS
NEWELS, CARVED
BALUSTERS, CAPITALS
RAIL, ETC.
DETAIL WORK A SPECIALTY—
COLUMNS BORED OR BUILT UP
WRITE FOR PRICES AND CATALOGUE. Any Size Furnished up to 24 In. Diameter and 24 Ft. Long



REDWOOD SHINGLES.

BOSTON, MASS., Nov. 25, 1899.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—We are having some very interesting correspondence from some of our customers relating to California Redwood Shingles. We enclose a copy of one of them.

HALLEY & DAVIS CO.,
Piano Manufacturers.

Office and Factory,
700 Harrison Ave.

BOSTON, MASS., Nov. 8, 1899.

BARTLETT LUMBER CO., BOSTON, MASS.:—

Gentlemen,—I enclose check in settlement for bill for Redwood Shingles, and wishing to express my satisfaction dictate this letter, and wish to say that the shingles you furnished me, which I had laid by the square, knocked out the contractor. Ordinarily 1,000 shingles lay a square, but I think the shingles you furnished more than filled the bill; in other words, it took less than one thousand shingles to cover the square, but I hold my carpenter to the number of thousand shingles laid by him. He kicks, and I would like to know if you are willing to express an opinion whether it is rubable to settle for more than the old rule calls for, 1,000 shingles to 10-foot square.

Yours truly, W. H. KEATING.

4" to the weather 100 feet.

4 $\frac{1}{2}$ " " " 120 "

5" " " 135 "

When you want a piano, or any of your friends, address me personally and I will give you, as you have given me, "a good trade."

W. H. K.

Another party writes that he ordered 20 M, or the same amount of Redwood Shingles that he would have required of the Eastern Cedar, and had 4 $\frac{1}{2}$ " of a thousand left which he claims saved him about twenty dollars. Several claim that it cost at least twenty-five per cent less to lay the Redwood Shingles than the Eastern Cedar Shingles. Others claim that they make a perfect wall shingle showing no unsightly cracks between the shingles, as is shown where Eastern Shingles are used.

Others claim that by covering the surface with marine or spar varnish, they retain their natural color and make a beautiful wall covering. Clapboards and other outside finish can be treated in the same manner.

We are much gratified to receive such communications and to learn that Redwood is becoming so popular with the architects and builders. In the matter of Redwood Shingles, we would advise that the builders use great care in laying them open a little in the joints, as they are very dry and make a much better roof by so doing. Care should also be exercised to use either a galvanized nail or a cut wrought nail in putting them on.

In the matter of amount of surface that 1,000 Redwood Shingles will cover, will say that on plain surfaces it has been found that at

4"	to the weather	they will cover	100 sq. ft.
4 $\frac{1}{2}$ "	" " " " " "	" " " "	120 "
5"	" " " " " "	" " " "	133 "
5 $\frac{1}{2}$ "	" " " " " "	" " " "	145 "
6"	" " " " " "	" " " "	157 "

On irregular roofs with dormer windows, hips and valleys, due allowance should be made for waste in cutting. Our Redwood Shingles are all 16" long, which will allow them to be laid 5" to the weather on roofs and 6" on walls, and they make a much better covering than the Eastern Cedar laid 4" on the roofs and 5" on walls.

In addition to the many advantages herein mentioned, we consider there is one other which is of great importance. That is the resistance of Redwood to fire. Whilst Redwood will burn when exposed to an intense heat, yet many instances have been related where fire brands have fallen on dry roofs covered with California Redwood Shingles and did not ignite the shingles.

It is acknowledged by all who are familiar with Redwood that it is superior to any other wood for outside finish. Several instances have come to our attention of late where

ALSEN'S PORTLAND CEMENT

Highest Quality, Most Reliable, Best Color, Most Enduring Surface, Greatest Bulk to the Barrel.

NOTABLE INSTANCES WHERE ALSEN'S CEMENT HAS BEEN USED BECAUSE OF ITS SUPERIOR QUALITY.

CATHEDRAL OF ST. JOHN THE DIVINE, N.Y.
WASHINGTON LIFE INSURANCE CO.'S BUILDING, N.Y.
MANHATTAN LIFE INSURANCE CO.'S BUILDING, N.Y.
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ELECTRIC R.R. SUBWAY, BOSTON.
METROPOLITAN SEWERAGE WORKS, BOSTON.
SEA WALL, LAKE FRONT, CHICAGO.
BRIDGES OVER HARLEM RIVER, N.Y.
THE U. S. NAVAL OBSERVATORY, WASHINGTON, D. C.

Alsen's Portland Cement Works, New York Office, 143 Liberty Street.

AGENTS AT BOSTON: WALDO BROS., 102 Milk Street.

Masonry in Modern Work.

A "PROLEGOMENOS" ON THE FUNCTION OF MASONRY
IN MODERN ARCHITECTURAL STRUCTURES.

By R. GUASTAVINO, Architect.

Price, paper cover - - - - - 30 Cents.

For Sale by the AMERICAN ARCHITECT.

Redwood has been used in place of more expensive hard woods for interior finish, with great satisfaction.

Office fixtures made of Redwood and finished in its natural color can be seen at our offices at 53 State Street, Room 409. The wood from which these fixtures were constructed has not been kiln-dried, and shows how well the wood stands finished up without kiln-drying. We shall be pleased to have any call who wish to examine the wood. We shall recommend in all instances where Redwood is to be used for interior finish in buildings heated by steam or hot air, that it be well kiln-dried to avoid any possibility of the joints opening.

It is found by the finishers that Redwood takes stain the best of any wood that is now used for interior finish, and that it can be colored to imitate the more expensive woods very successfully. It takes the green color now so much used better than any other wood. We mention this, as many architects are anxious to get a wood that will take colors readily.

Again thanking the architects and builders for the interest they have taken in Redwood, we remain,

Very respectfully,

BARTLETT LUMBER CO.,
53 State St., Boston, Mass.

PAINT DON'TS.

Don't put paint on a rusty or a dirty roof. Use a steel brush or a stiff broom to clean the surfaces.

Don't expect one thick coat to answer as well as two thin coats.

A thick coat doesn't dry evenly or well. Brush the paint out well so as to make the coating even and thin, but not too thin. Then it will dry thoroughly, and the second coating, if applied in same manner, will cover all the hair-line spaces left in putting on the first coating.

Don't use any oil but pure linseed oil. Up to date nothing better has been found than pure linseed oil, well seasoned.

Boiled oil is better than raw, if you are sure of getting genuine boiled oil. Boiling the oil rids it of much of the water and non-drying matter that is found in raw oil.

Don't use driers if you use good boiled oil, nor even if you use raw oil, so long as the weather is dry.

A good dryer, about a gill to the gallon of paint, may be added if the weather is threatening or if you must have the paint dry quickly. Don't expect the paint to be durable if you burn out the oil with driers or turpentine.

Oil does not dry by evaporation. It takes up oxygen from the air and is slowly converted into a tough, elastic, leather-like substance of great durability.

Don't forget that surfaces properly painted with Dixon's Silica-Graphite Paint have not required repainting in ten to fifteen years and over. The Morgan Iron Works, New York City, have exposed iron structures at their factory that were painted over twenty years ago and they don't need repainting yet. Don't forget that all the long-time records for durability for graphite paint have been made by Dixon's Silica-Graphite Paint. None of the imitations now in the market is old enough to "lift the cup."

DIXON CRUCIBLE CO.,
JERSEY CITY, N. J.

ROOF SNOW-GUARDS.

It is conceded by every unprejudiced person that the Folsom method of preventing snow-slides from roofs of buildings is scientifically correct.

To displace the guard-rail by so radical a departure from old methods means that the Folsom Snow-guards do not now and have never damaged or strained the slates.

The Folsom method is so simple and effective that it has many imitators, and guards claiming to be better, stronger and cheaper than the Folsom are on the market. It is a

poor year that does not bring forth one or more of them.

Cheapness is a suspicious factor. It means inferiority and future expense.

Good things are not given away; cheap things are not good; and cheap snow-guards are costly, a constant expense and annoyance.

The Folsom Snow Guards insure your roof against damage by yielding under excessive pressure without straining and damaging the slates, and we consider this feature of the snow-guards the most valuable, for braced guards lift the upper and puncture the lower slates; a process that goes on year by year, causing a continued expense that is as needless as it is exasperating.

A roof may be protected by the Folsom method at a smaller cost than by the old-fashioned rail, more effectively and without injury to the softest slates.

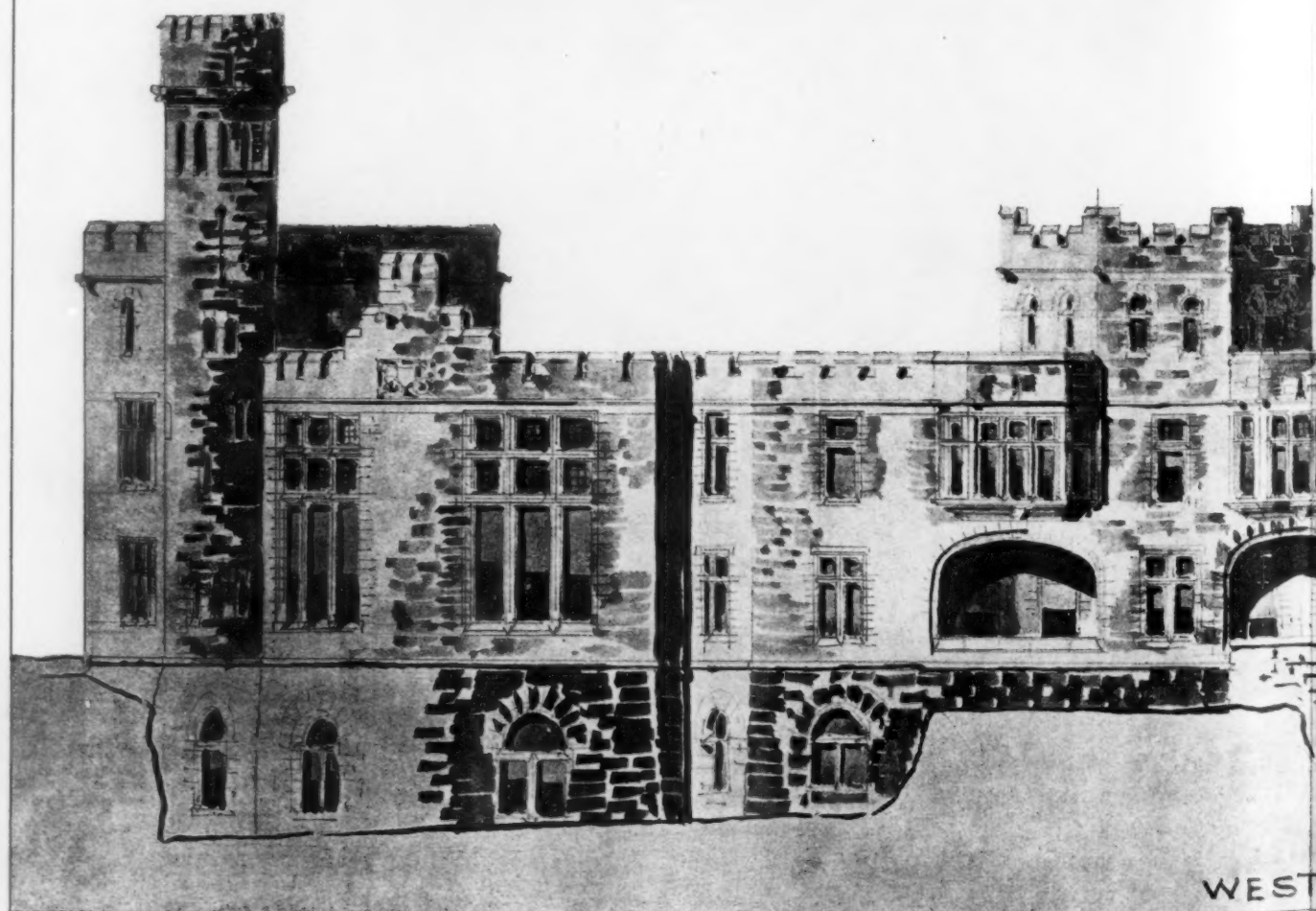
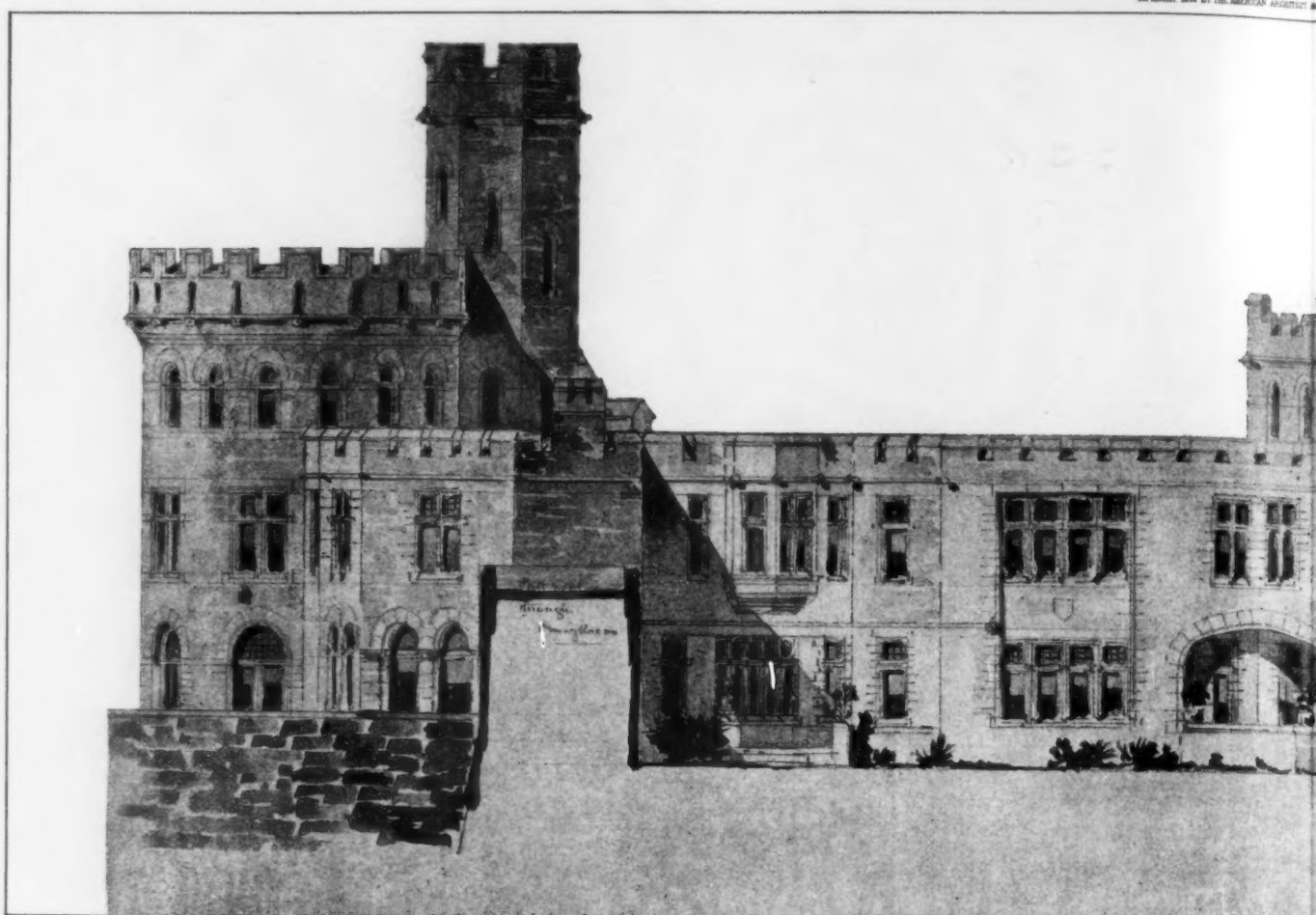
Bear in mind the Folsom Snow-guards do not strain the slates.

FOLSOM SNOW-GUARD CO.,
116 SOUTH ST., BOSTON, MASS.

NOTES.

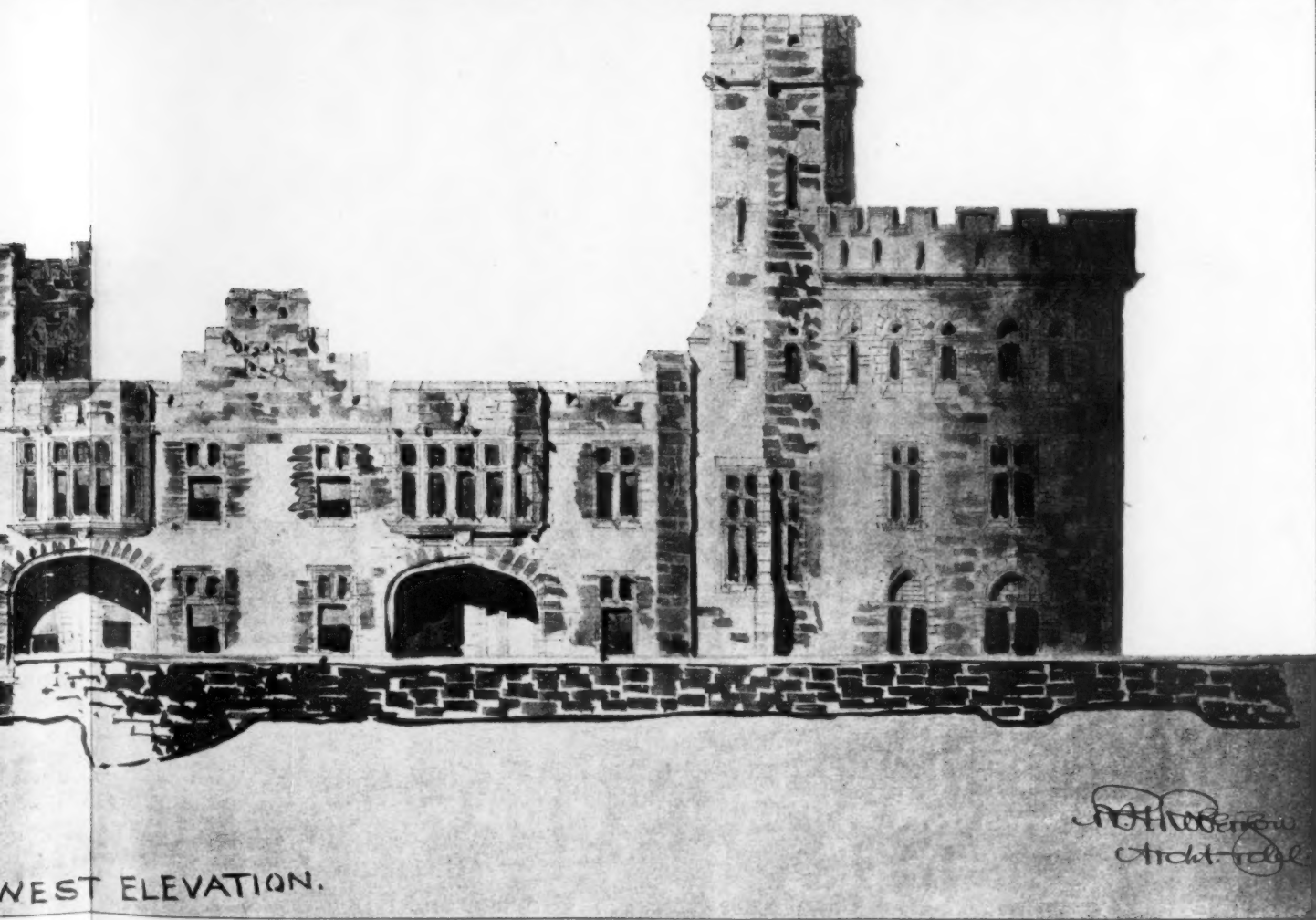
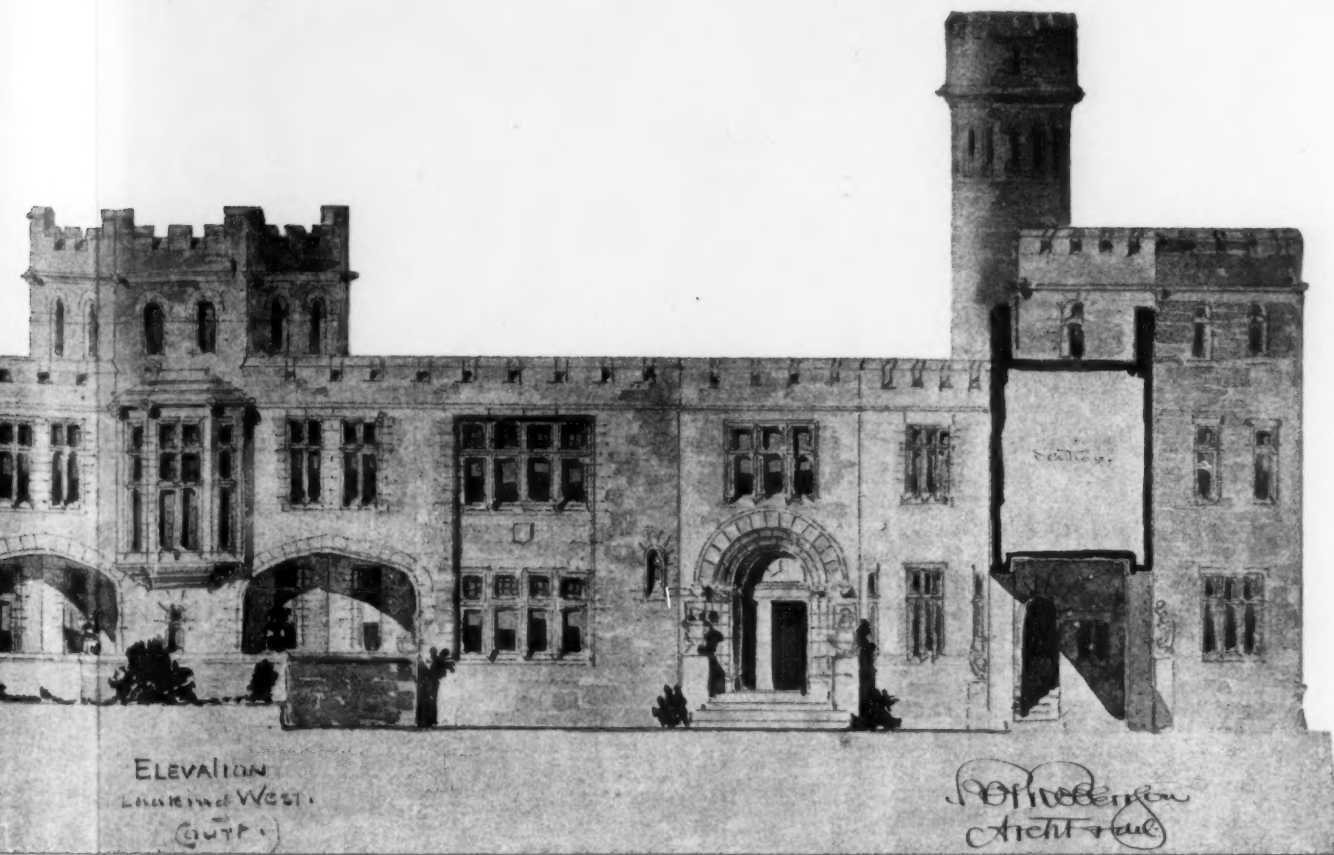
It would be impossible to find a more fascinating place in its line than the great fireplace establishment of W. H. Jackson & Co. It is a world of its own — a world of art and beauty applied to the creature comforts of existence. The fireplace and mantel arrangements enlighten one regarding the new fashions in a most satisfactory way. As a preëminent novelty may be noted the return of the old-fashioned Franklin stove, that some young people of to-day may have seen in their grandfathers' houses. To those who have not, it may be described as a grate inclosed in a structure of iron or brass about three feet high; the top is a broad shelf, and there is a low, broad hearth. It is the most comfortable looking stove imaginable — a stove with "atmosphere" and individuality. A novelty, too, is the tile stove, for gas, in old Dutch fashion. This is intended primarily for tile bath-rooms, but is artistic enough for any room whose color scheme would harmonize.

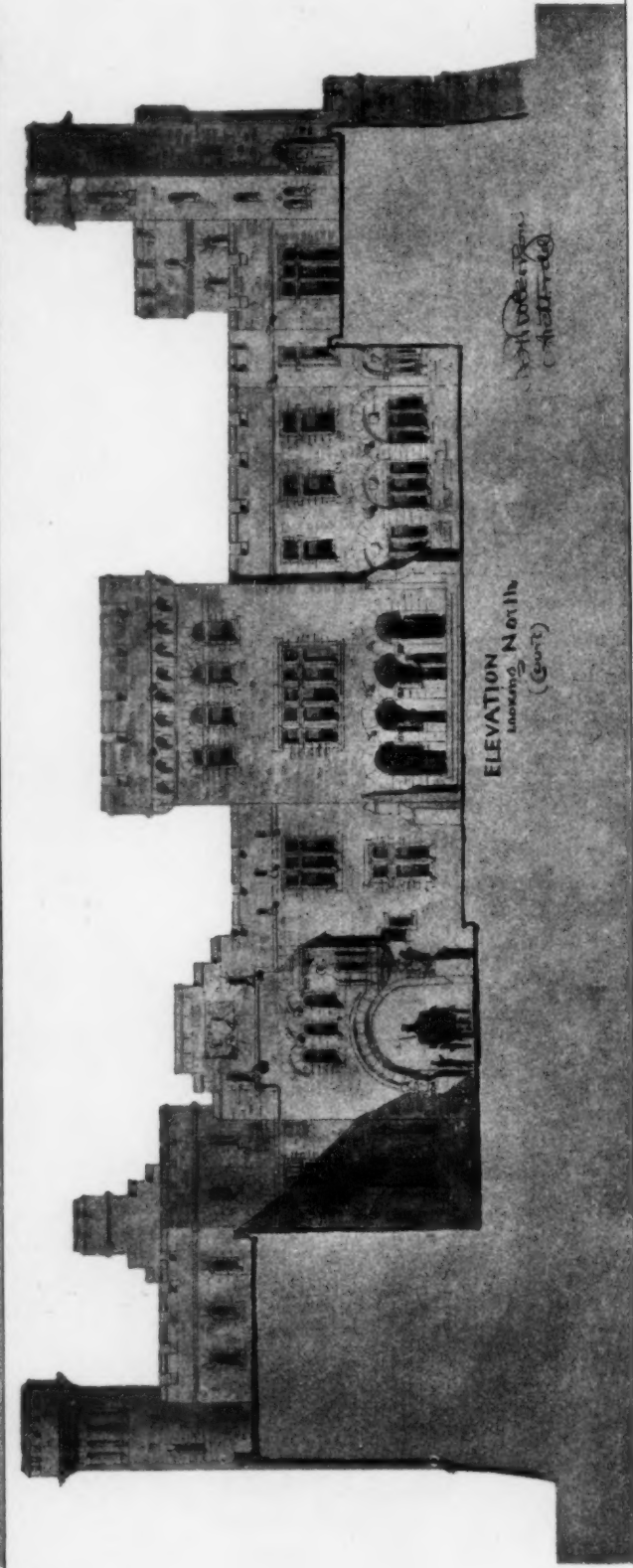
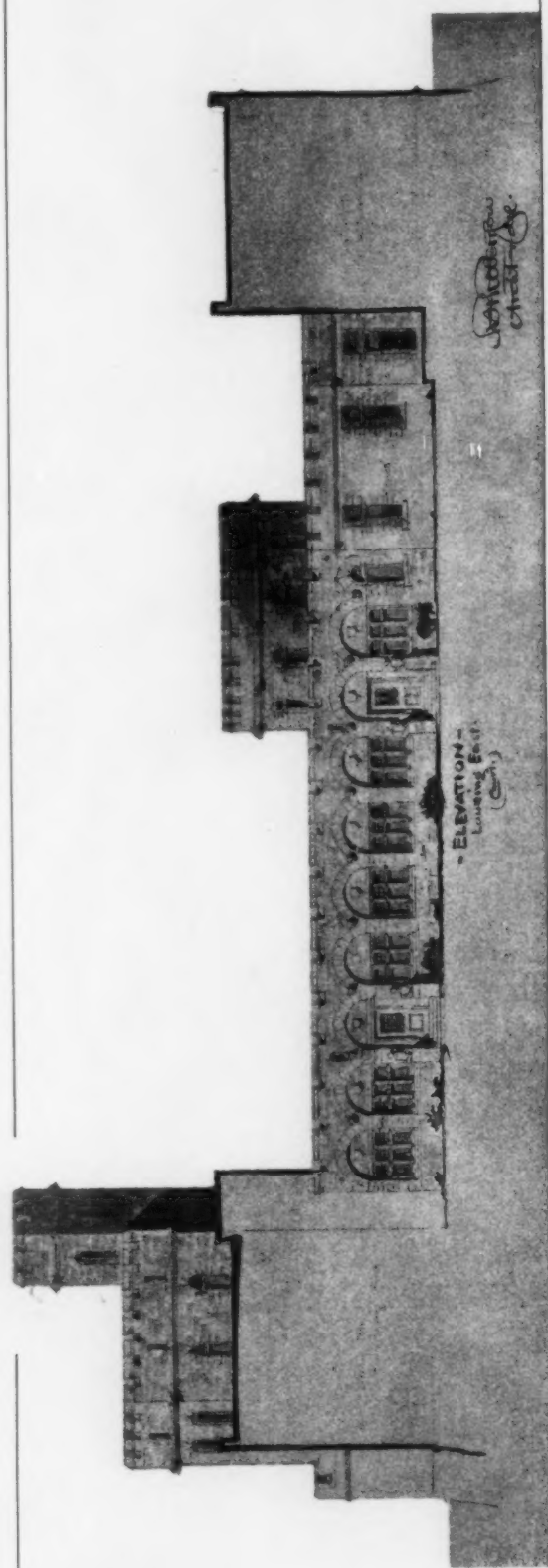
A superb mantel and fireplace is of petrified wood, veined and colored like Sienna marble, and as highly polished. The dimensions are on the amplest scale — 8' 6" x 9'. The dark reds and browns of the petrified wood are exquisitely rich in coloring, and the straight lines on which the fireplace is built give a dignity that suggests old baronial halls and that sort of thing. — N. Y. Tribune.

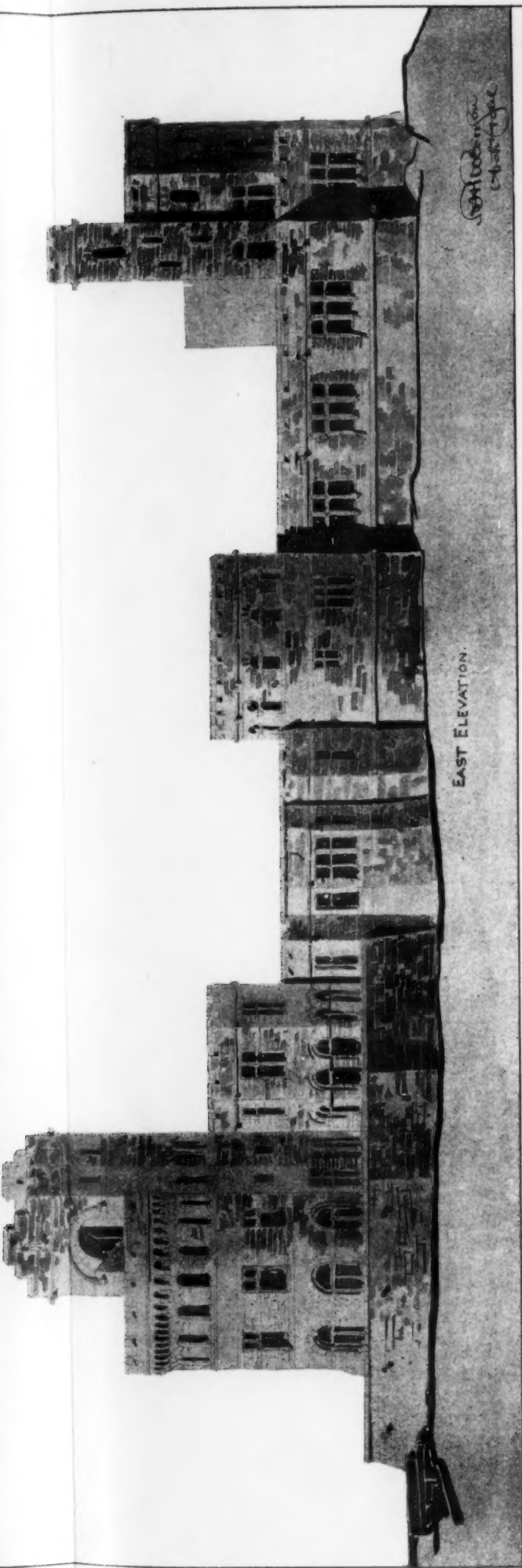


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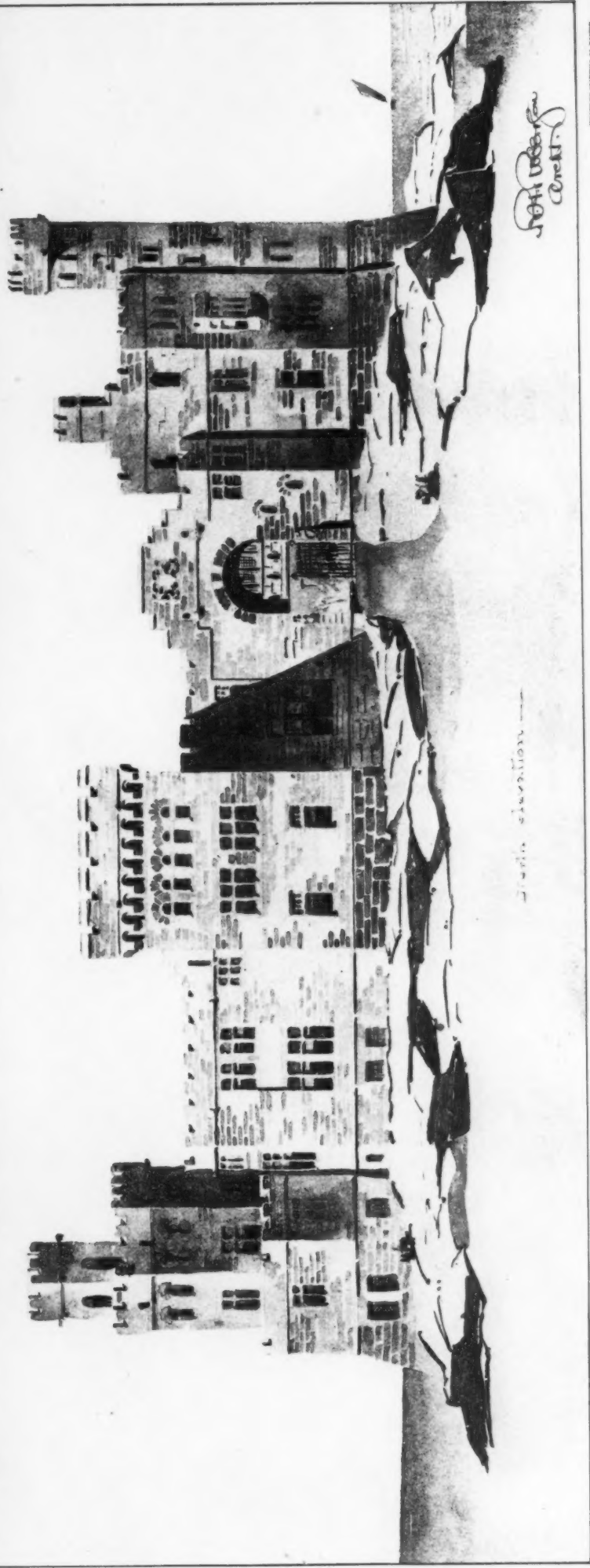
"THE HOUSE ON"
R. H. ROBERTSON





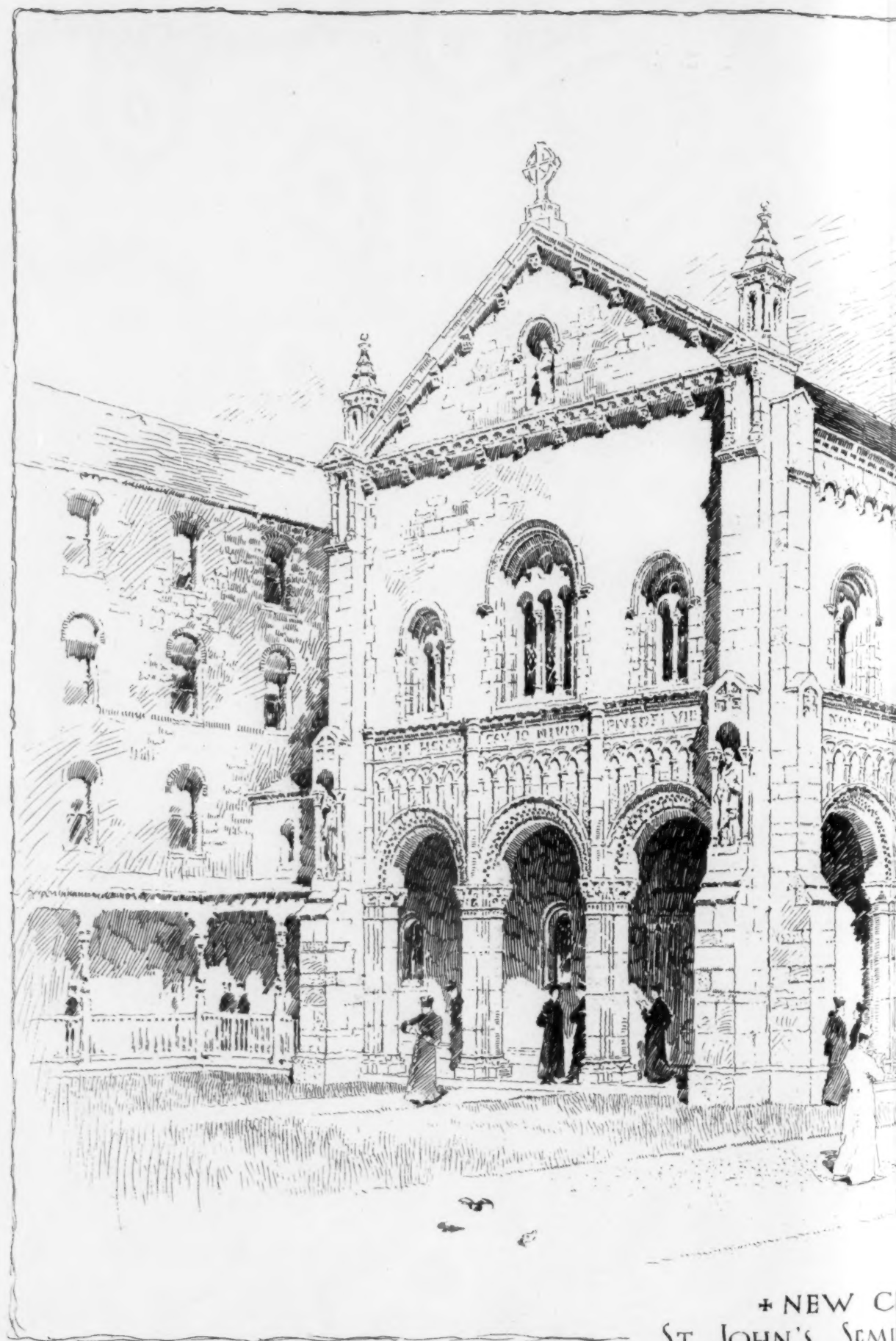


EAST ELEVATION



SOUTH ELEVATION

"THE HOUSE ON THE ROCKS."
R. H. ROBERTSON, ARCHITECT.



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ST JOHN'S SEMI

MAGINNIS WALSH
TREMONT



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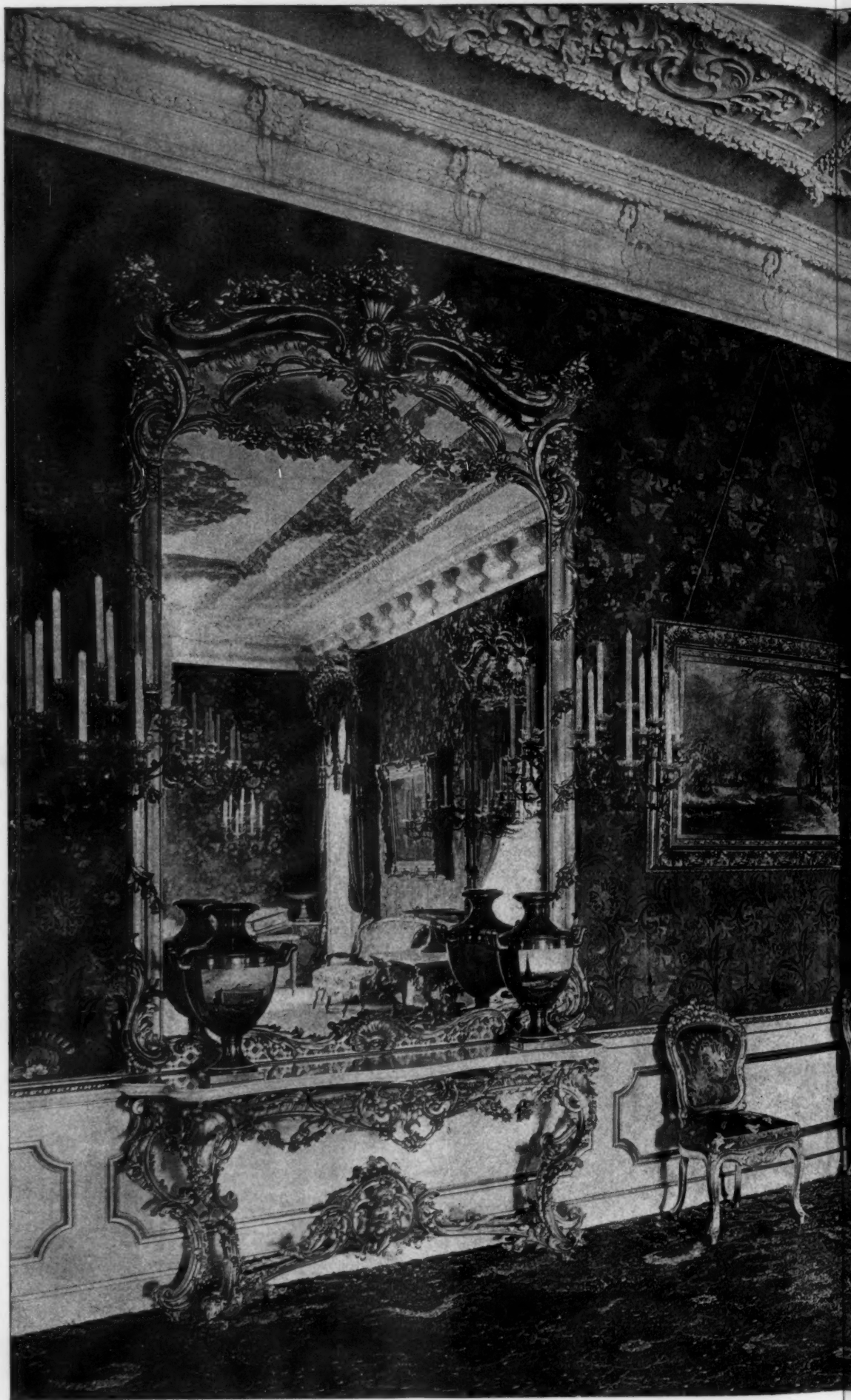
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H. J. HARDENBERG



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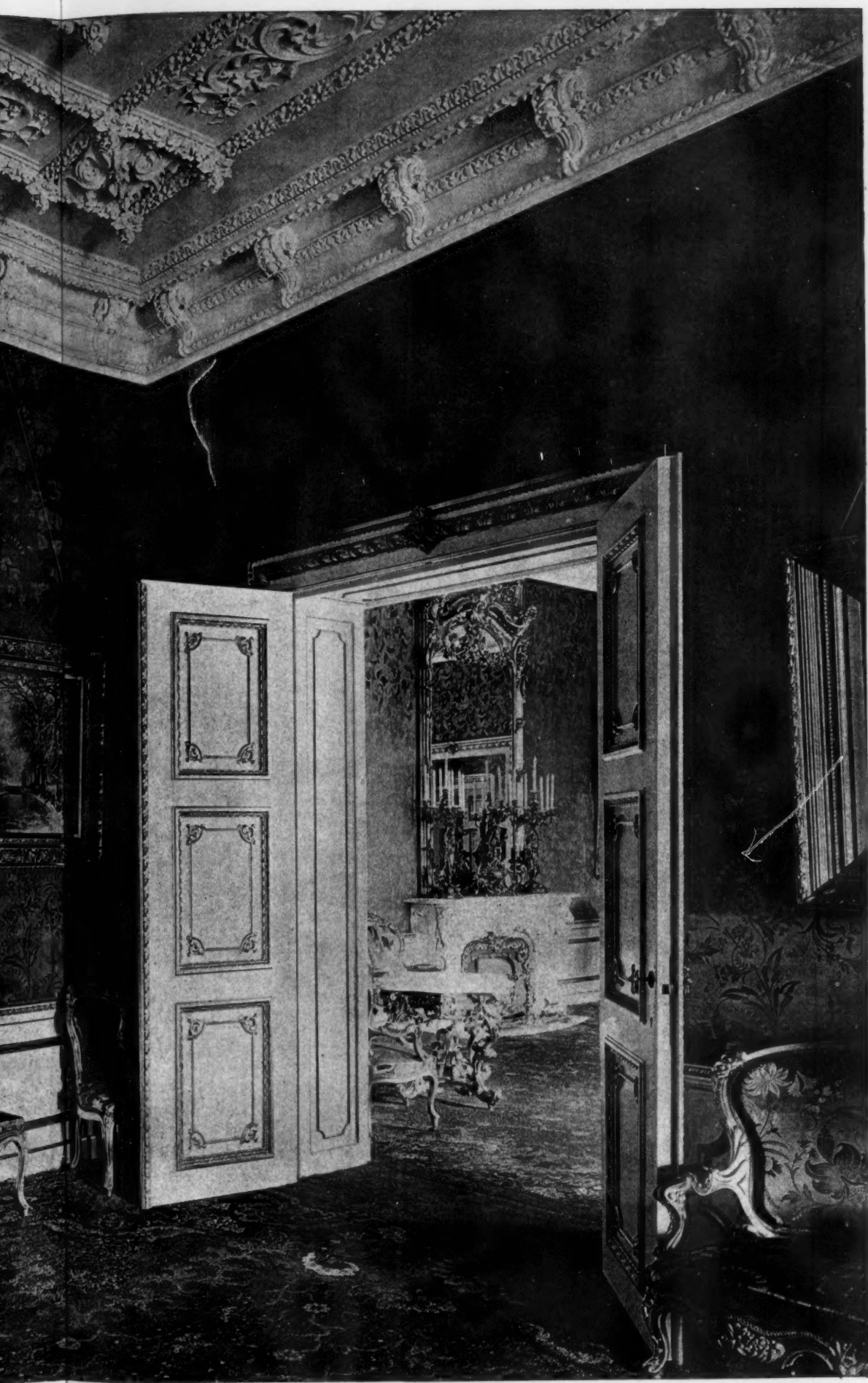
42D ST. AND MADISON AVE., NEW YORK, N. Y.

ENBERGH. ARCHITECT.



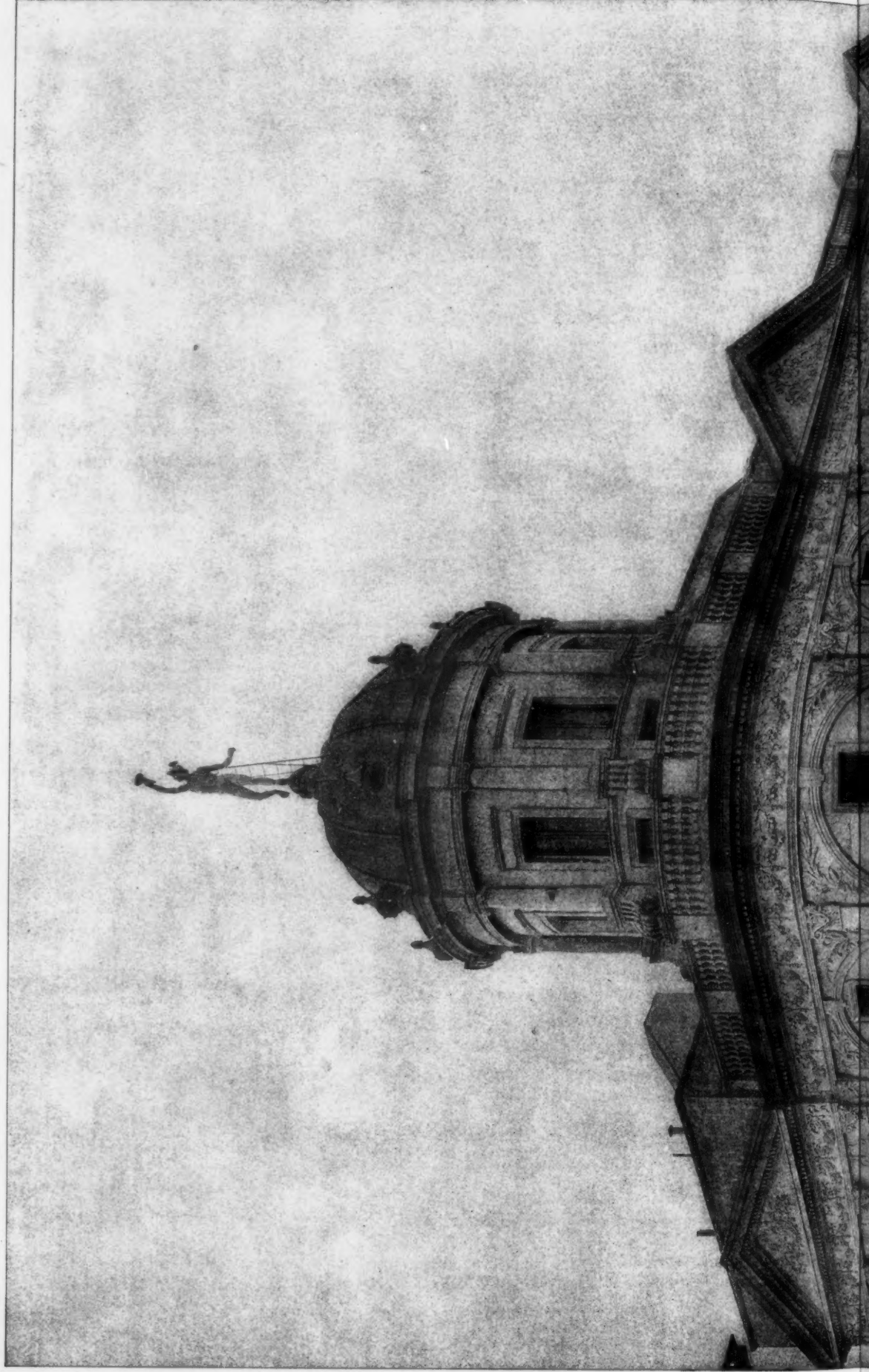
PHOTOGRAPHED BY S. B. BOLAS & CO. 77, OXFORD STREET, W.

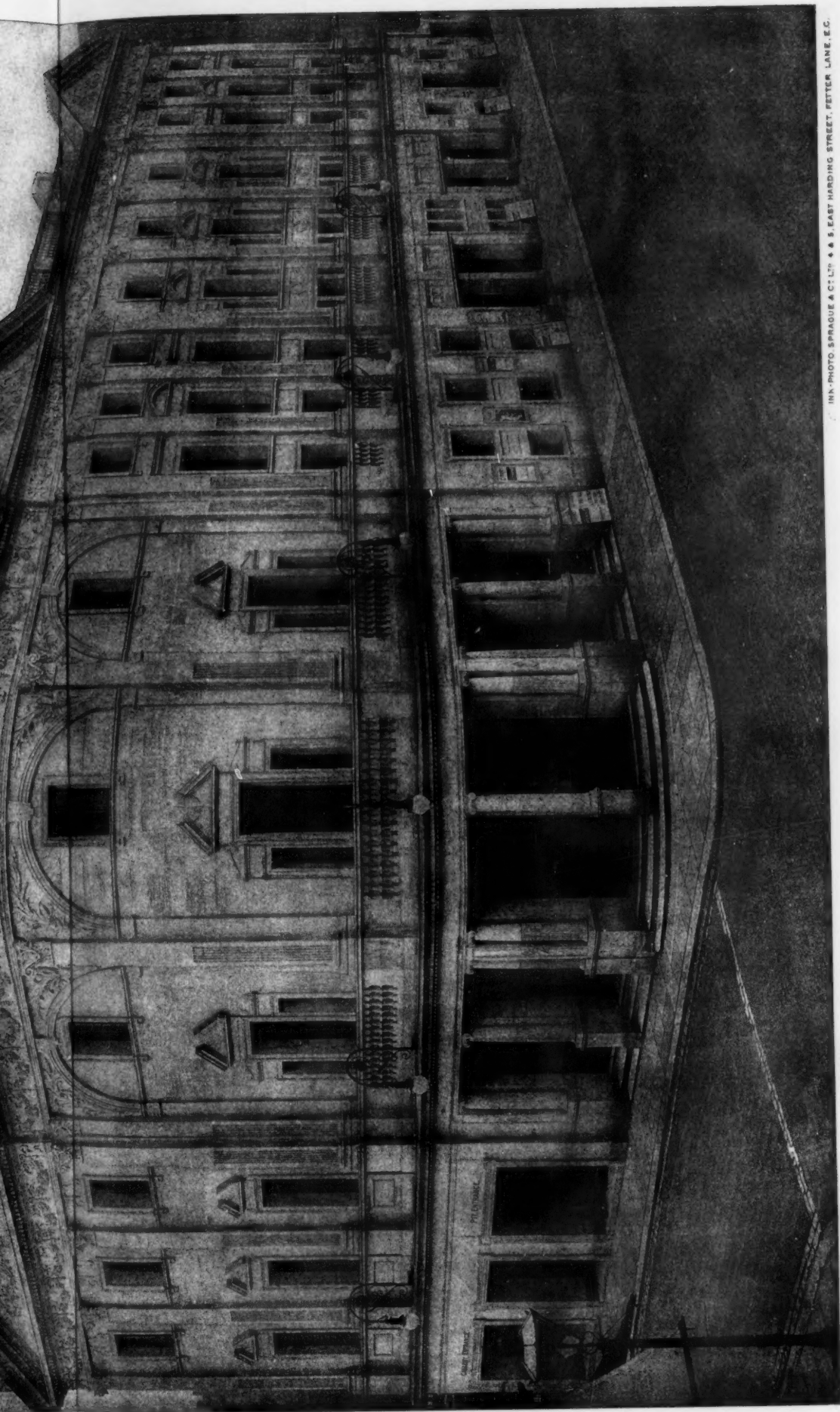
A CORNER OF THE QUEEN'S



INK-PHOTO. SPRAGUE & SONS, 117 N. 5th ST., PHILADELPHIA, PA.

QUEEN'S TEA-ROOM: THE HAGUE.





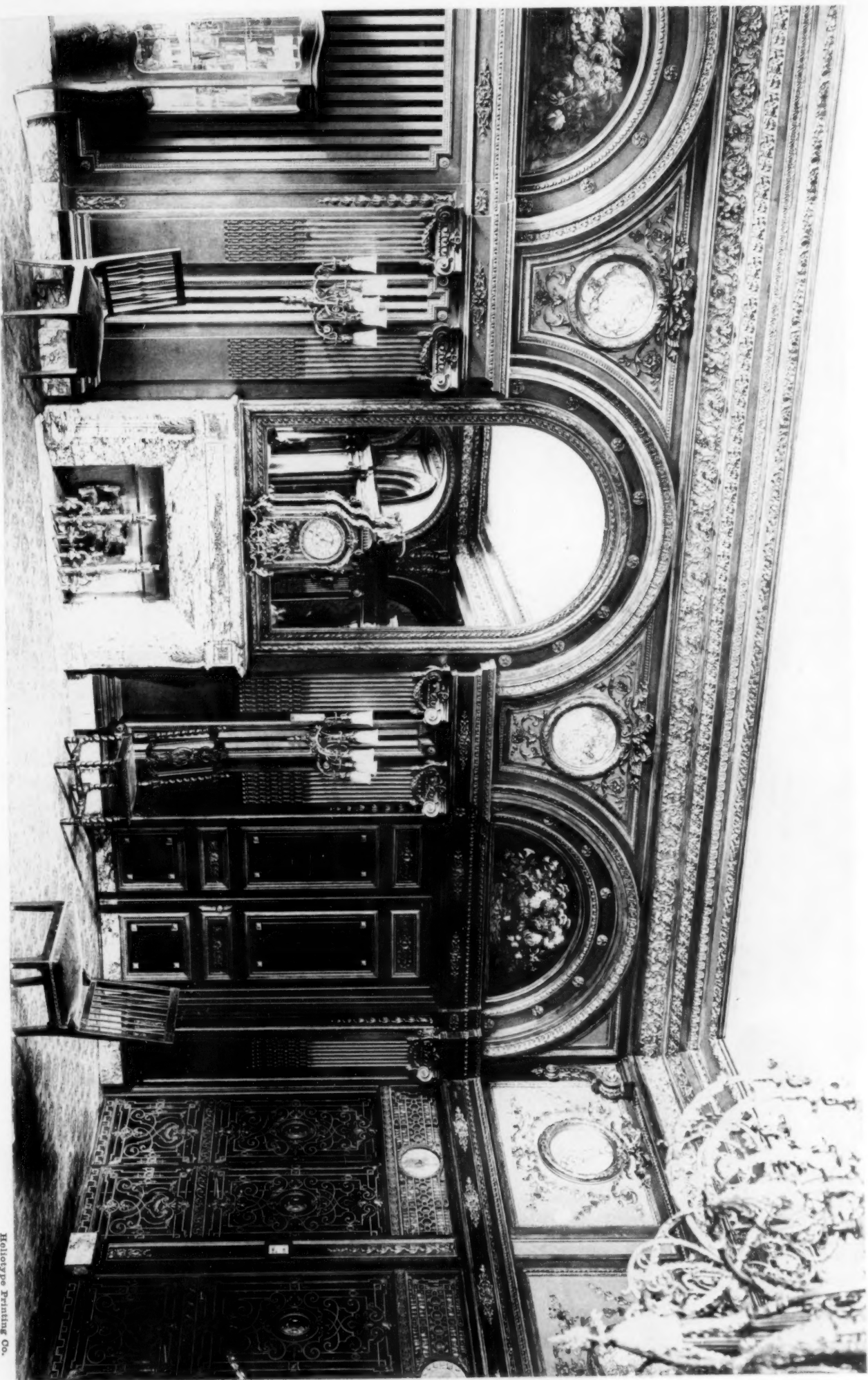
FROM A PHOTOGRAPH BY J. BULBECK & CO., 105-8 STRAND, LONDON.

INK-PHOTO SPRAGUE & CO. LTD. 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

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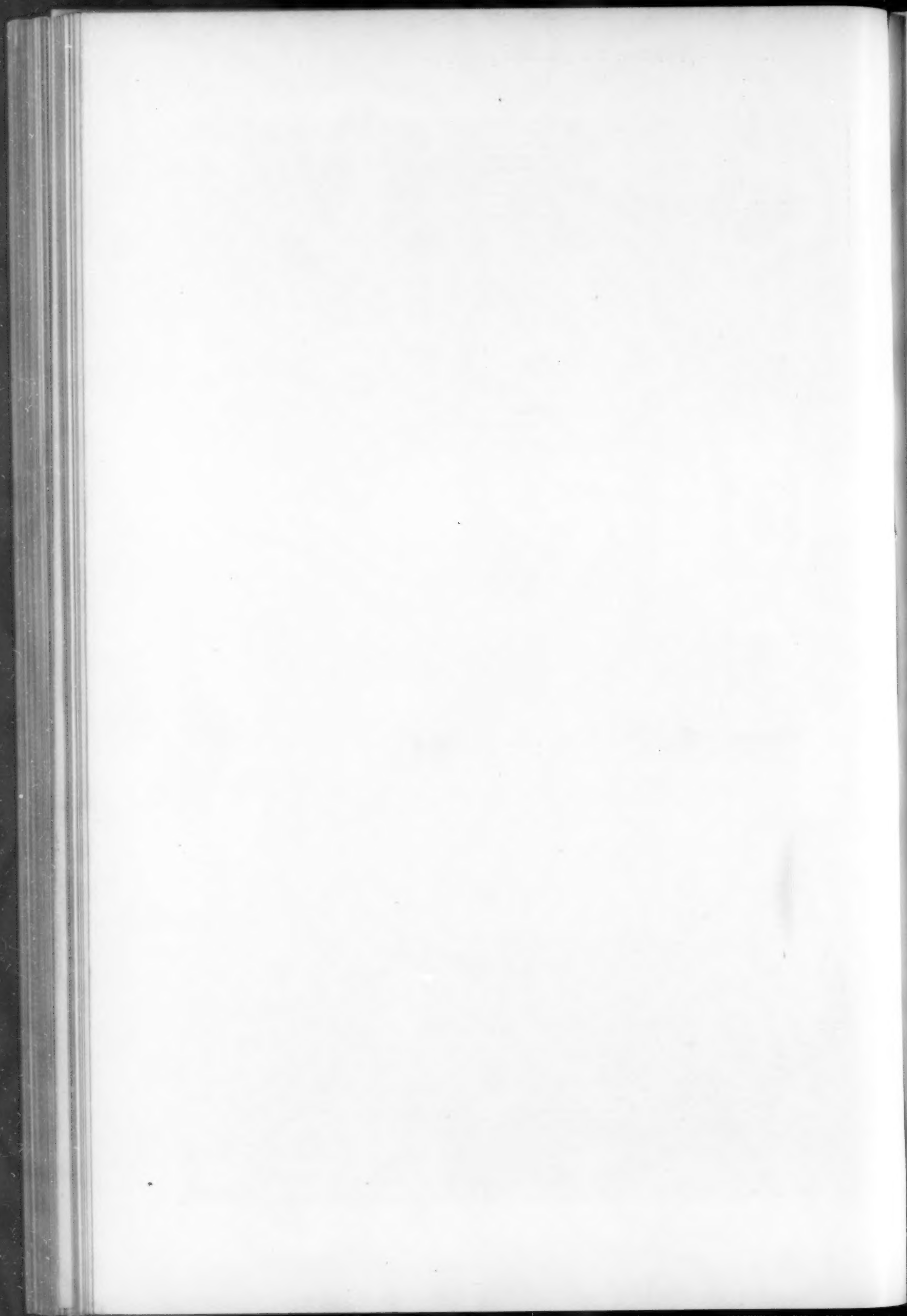
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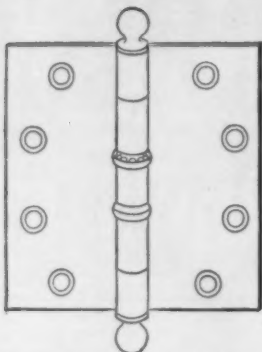
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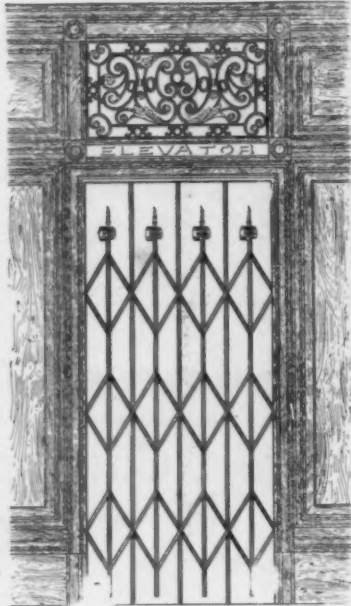
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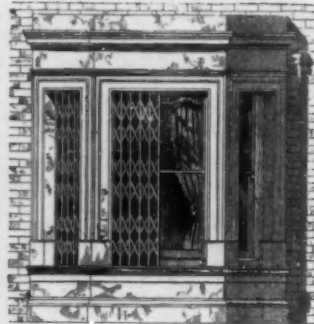
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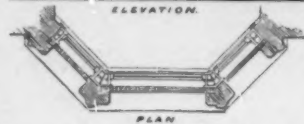
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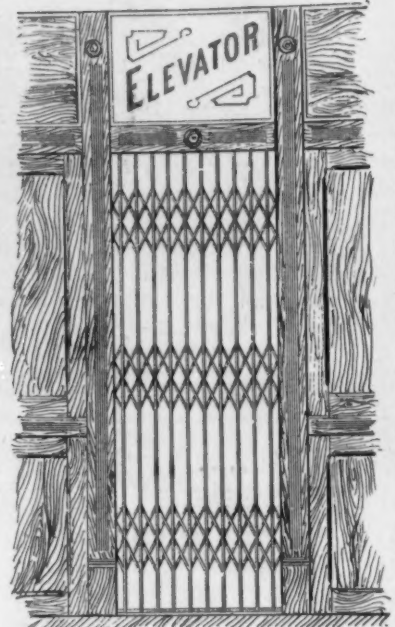


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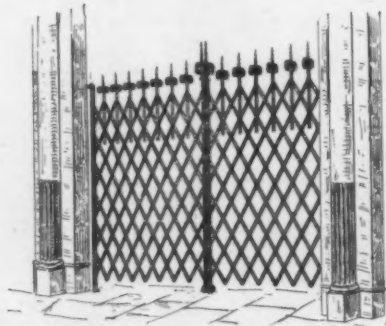


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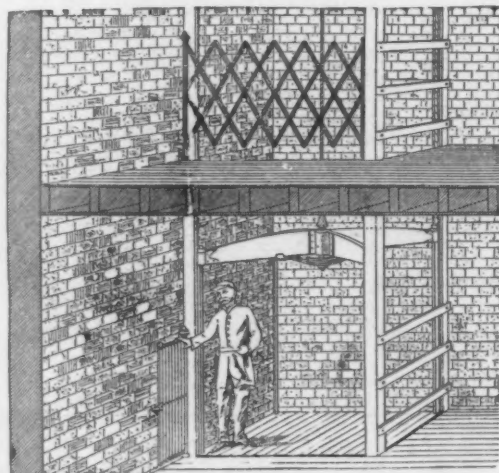
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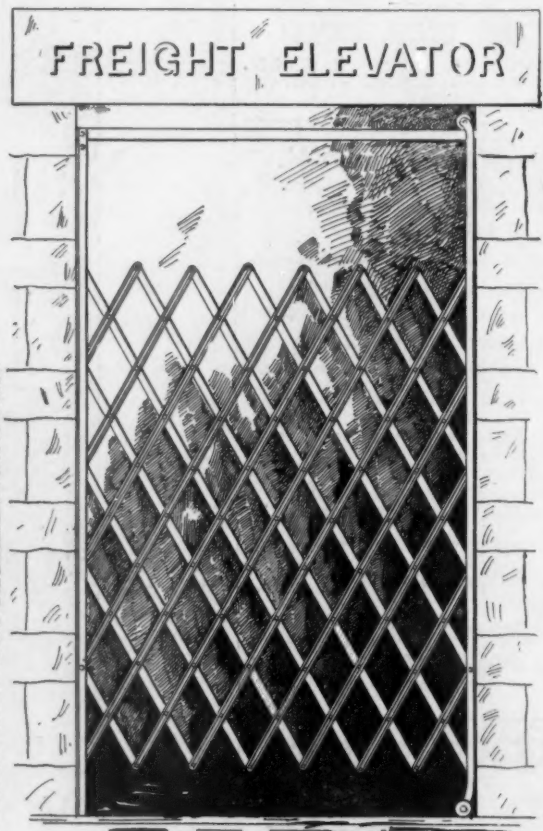
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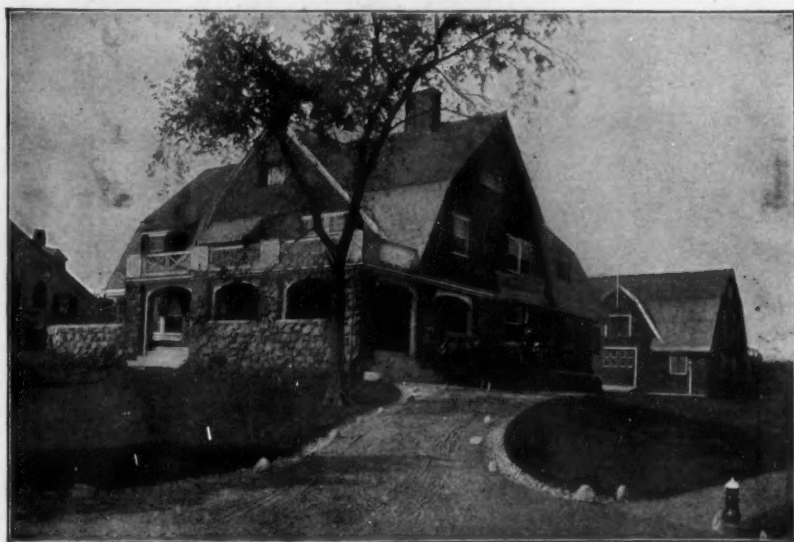


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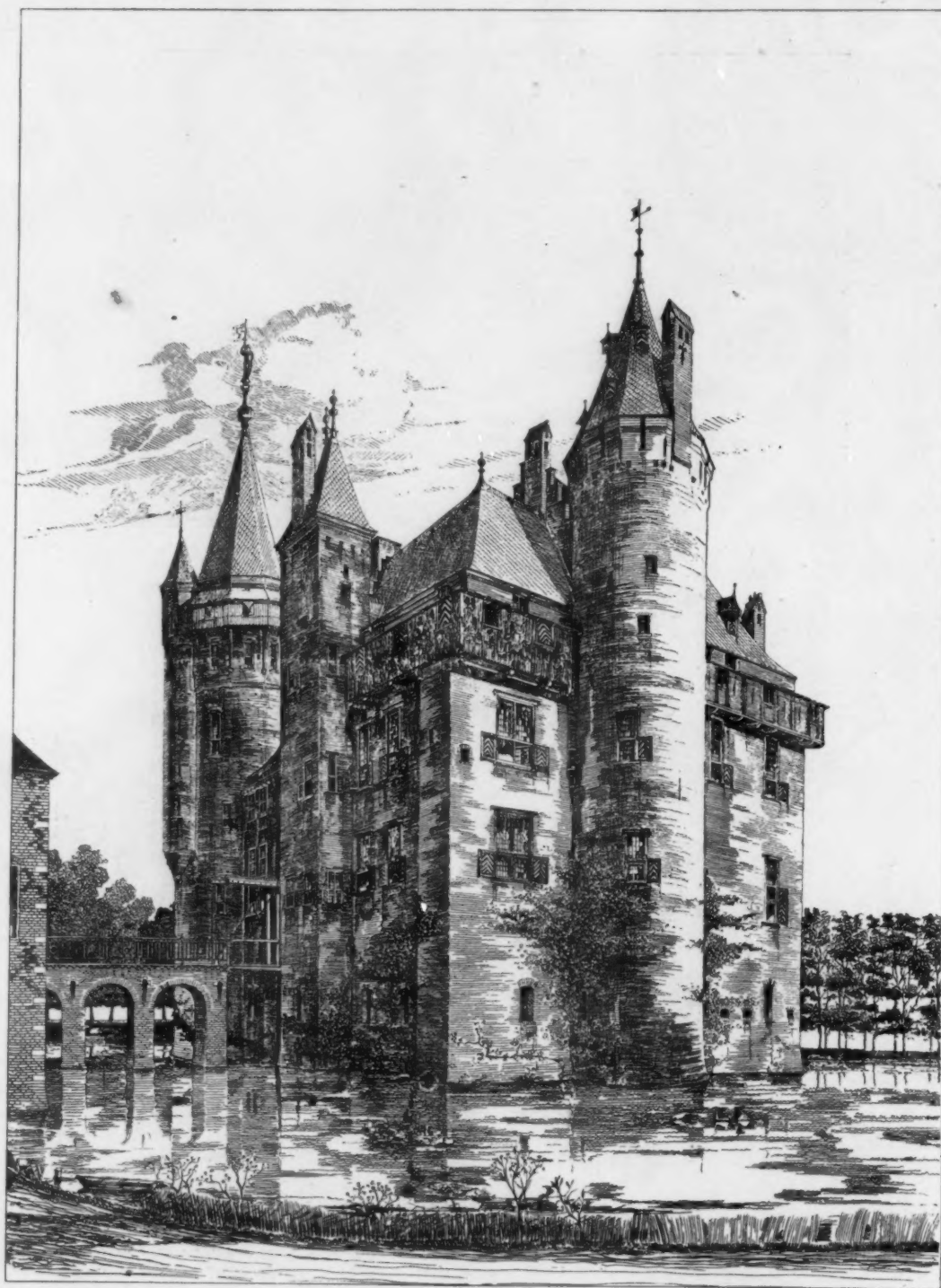
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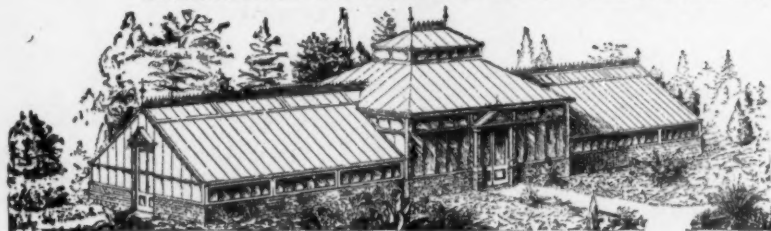
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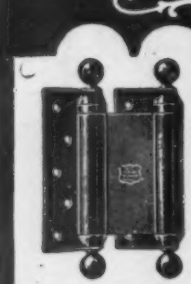
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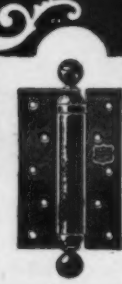
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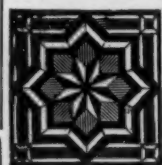
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BUILDING PATENTS.

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637,545. SASH-BALANCE.—Melvin Barber and Louis F. Kramer, Oklahoma, Okla.
637,615. FIRE-ESCAPE.—Dinarej N. Jerauld, Newport, Ky.
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637,755. SASH-LOCK.—John H. Metz, Denver, Col.

BUILDING INTELLIGENCE.

Reported for the American Architect & Building News.

ADVANCE RUMORS.

Cambridge, Mass.—A. W. Lorgfellow, arch't, Tremont Building, Boston, has drawn plans for the new Semitic Museum, which will be built on Divinity Ave., near the Agassiz Museum. The building will cost \$50,000, and is the gift of Jacob A. Schiff, of New York.

Ready, Part IV "Georgian Period."

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Buffalo, N. Y.—Architects Metzger & Greenfield have prepared plans for the erection of a three-story brick apartment-house at the southwest corner of Prospect Ave. and Maryland St. The structure will have all modern improvements and will cost about \$25,000.

Henry W. Brown will build a two-story frame hotel, 30' x 65', at the southwest corner of Main St. and Hertel Ave., to cost \$6,000.

Architect George J. Metzger has completed his plans for the conversion of the old 74th Regiment armory into a convention hall. The alterations will cost between \$5,000 and \$10,000.

Cedartown, Ga.—A cotton-mill to cost \$150,000 will be erected by a syndicate of which M. O. Berry, Columbus, O., is president, and Wm. Parker, mgr.

Clinton, Ia.—The managers of Agatha Hospital are stated to have decided to erect a \$30,000 building.

Coshocton, O.—Plans are being prepared by Architect H. C. Lindsay, Zanerville, for a three-story brick apartment-building, 66' x 100', to cost \$18,000, to be erected in the spring.

Danvers, Conn.—The congregation of St. James's Church is stated to have decided to erect a \$25,000 edifice. Rev. Mr. Guinet, pastor.

Denver, Col.—The Army Committee of the State Military Board has approved the plans of the F. E. Edbrooke Architectural Co., People's Bank Building, for an armory, to cost about \$50,000.

Detroit, Mich.—Rogers & McFarlane have prepared plans for a three-story brick dwelling for the Detroit Stamped Ware Co., foot of Summit Ave.; cost, \$30,000.

N. Wardrop has prepared plans for improving and modernizing the stores 9 11 Monroe Ave., for General Duffield.

Joseph E. Mills has prepared plans for a two-story brick factory to be built on Pine St., near Grand River Ave.; cost, \$10,000.

The Controller of the City of Detroit has been authorized to issue bonds to the amount of \$150,000 for the erection and equipment of an aquarium on Belle Isle Park. Philip H. A. Baisley is Chairman of the Board of Park Commissioners.

Rogers & McFarlane have prepared plans for an addition to the Detroit Copper & Brass Rolling Mills; cost, \$8,000.

The Board of Education have instructed their architects to prepare plans for a new high school to be built in the eastern part of the city; cost, about \$150,000. Malcomson & Higginbotham, architects.

E. C. Van Leyen is preparing plans for a three-story apartment-house to be located on Alexandrine Ave., near Woodward; cost, \$10,000.

Architect Van Leyen is also preparing plans for the conversion of the building 15 Cadillac Sq. into a Turkish baths establishment; cost, \$8,000.

Crosman, Gregory & Co. will build a two-story brick apartment-house on Blanc Ave.; cost, \$10,000.

Eau Claire, Wis.—The County Board voted to erect a County Insane Asylum, to cost \$75,000.

Fall River, Mass.—A new thread mill with a capacity of 100,000 spindles, which will employ nearly a thousand hands, will be built in this city at a cost of about \$2,000,000 by the thread trust, known as the American Thread Co. William Greene, of Holyoke, the supervising engineer of the trust, will have charge of building the new manufactory.

Grand Rapids, Mich.—The Hopson Hofencamp Co. have had plans prepared for a four-story brick and stone factory on Campton St.; cost, \$15,000. Wm. G. Robinson, architect.

Green Bay, Wis.—Eastern capitalists propose to erect a beet-sugar factory here, to cost \$400,000.

Great Falls, Mont.—W. G. Conrad has accepted plans of Bell & Kent, architects, of Helena, for a bank and office building. It will be two-story, 50' x 150', of common and pressed brick and native stone; cost, \$33,000.

Holyoke, Mass.—Plans have been prepared by J. J. Kirkpatrick for a four-story apartment-house to be erected for Frank Langelier at the corner of Cabot and Maple Sts.

Hudson, Wis.—The County Board voted to erect a court-house, sheriff's residence and jail, at a cost of not to exceed \$50,000. A committee on plans and specifications will report in a few days.

Kallepell, Mont.—The County Board has adopted plans submitted by Bell & Kent, architects, of Helena, for the Flathead County court-house. It will be two-story, 65' x 80', of common and select brick, with native stone; cost, \$35,000. Contract not let. The same architects will furnish the plans for the county jail. It will be two-story, 35' x 60', of common brick, native stone, shingled roof, steam heat; cost, \$15,000. Contract not let.

Manett, Mo.—Plans have been prepared for a two-story brick and stone bank, office and store building for Robert Johnson. It will be 75' x 130', and have composition roof; cost, \$12,000.

Manistee, Mich.—Architect Liebert, of Milwaukee, has plans for remodeling a business block owned by G. Kitzinger, to cost \$15,000. The same architect has prepared plans for a factory building for Logemann Bros., on Oregon St., between Clinton and Reed, to be 45' x 60', three-story, brick; cost, \$10,000.

Mayfield, Ky.—It is stated that plans are being prepared by Wm. L. Brainerd, of Paducah, for a \$20,000 hotel.

Milwaukee, Wis.—The Martin Estate has decided to make interior alterations to the Iron Block, at the corner of Wisconsin and E. Water Sts.; cost, about \$75,000. Courtenay & Tibbitts, agents.

The Young Women's Christian Association will erect a new building on Jackson St. The new building will be 60' x 120', six stories high, constructed of brick, and cost about \$40,000.

St. Vincent Polish Catholic Church is having plans drawn for a new building, Romanesque in style, 75' x 195', with a spire 205 feet high; cost, \$50,000.

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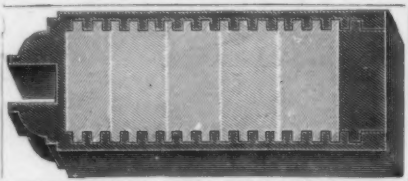
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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Architect Liebert has completed plans for a \$50,000 business block to be erected at Buffalo and Broadway, by E. Von Baumbach. It will be five-story and basement, 80' x 120', of buff St. Louis pressed brick and red sandstone trimmings.

The Milwaukee Wagon Iron Co. has removed from Racine to St. Paul Ave., between 19th and 20th. Improvements and additions to cost \$20,000 will be made.

Minneapolis, Minn.—The city has purchased a lot on the top of the hill on Kenwood Boulevard, and will have plans prepared for the erection of an engine-house. It will be of a modern style of architecture, and be in conformity with the class of residences already located adjacent; estimated cost, \$15,000.

Missoula, Mont.—E. L. Bonner has had plans prepared by A. J. Gibson, architect, for a store and apartment building. It will be three-story, com-

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

mon brick, 40' x 119', with granite trimmings, tin roof; cost, \$25,000.

New Haven, Conn.—The Yale Corporation have decided upon plans for the new University buildings. Of the designs offered by six competing architects, those submitted by Carrère & Hastings, of New York, were accepted. There are to be two large halls, one for alumni reunions and the other for university gatherings. This second hall is to have a seating capacity of 3,000. There is also to be a university dining hall which will be somewhat larger than the Memorial Hall at Harvard. This will be one of the most important building operations in the history of Yale.

New York, N. Y.—Deputy Fire Commissioner Jas. Tully believes that the city should own all buildings and sites which are used by the Fire Department. He intends to ask the next Legislature for an appropriation of \$300,000 with which to provide buildings for the fire companies in Brooklyn and in

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Queens which are now occupying leased buildings, and buildings for a half dozen new companies that the increase in population makes imperative. He gives as his reasons the unsanitary condition of some of the rented buildings, and the exorbitant rents paid in some instances.

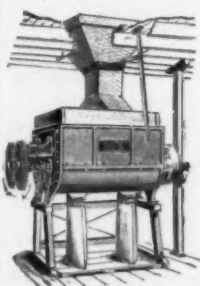
Northfield, Minn.—The Building Committee for St. Olaf College has decided to erect a large addition to the main building, containing recitation rooms and a chapel with seating for 500. A dormitory to accommodate 250 will be erected.

Ogden, Utah.—A large tin-can manufacturing industry is to be established here, and will occupy a large fireproof brick building, work on which is to be commenced soon. The enterprise will involve an expenditure of about \$150,000. L. B. Adams is general manager of the company.

Philadelphia, Pa.—Architect Henry D. Daget announces that his designs won the competition for the improvements to the property at 1411-1413 Arch St., recently purchased by the Catholic Philopatrian Literary Institute, and to be occupied by them as their club-house. The plans contemplate the erection of a large assembly-room in the rear, and the present building consisting of four stories, will be remodelled so as to meet all the requirements of first-class club apartments.

The Arrott Steam Power Mills Co. are arranging to improve their plant at the northwest corner of Coral and Taylor Sts., Kensington. Four stories will be added to the present mill and a five-story picker house built. This will give the structure a frontage of 256 feet on Taylor St. and 45½ feet on Coral St.

The Pennsylvania Hospital, which recently acquired the property at the southeast corner of 8th and Spruce Sts., will have considerable alterations made preparatory to utilizing the building as a nurses' home. The rear buildings will be torn



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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

down and a stable erected. Addison Hutton is making the plans.

Doyle & Doak are drawing plans for a one-story brick power-house, 97' x 122' 7", for the American Railways Co., at Bridgeton, N. J.

Pittsburgh, Pa.—Press reports state that Andrew Carnegie has approved the plans for enlarging the Carnegie Library, at a cost of \$1,750,000. W. N. Frew, Chmn. Bd. Trus.

Rock Island, Ill.—J. J. La Velle, Dr. R. M. Pearce and others of the Rock Island Club, are on a committee appointed to investigate the matter of erecting an opera-house, at a probable cost of \$50,000.

San Diego, Cal.—Geo. W. Hazard will build a \$12,000 brick block.

South Ambler, Pa.—The Keasbey & Mattison Co.,

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

of Ambler, have begun grading the ground between Maple and Chestnut Sts., for the erection of a large building, 60' x 298', fronting on the former street, to be used as an asbestos factory. At present it is designed to be only one story, but the plans call for a five-story building of stone and iron, covering the whole square, and costing probably \$50,000.

Spencer, Ia.—Bonds to the amount of \$50,000 will be issued for the erection of a new court-house for Clay County.

Stockbridge, Mass.—The contract to build a \$12,000 cottage for Dr. Haven has been awarded to Osteyer Bros., of Pittsfield.

St. Joseph, Mo.—The St. Joseph Commercial Club is considering the erection of a \$50,000 convention hall.

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

St. Louis, Mo. — Plans have been drawn for a brick and stone school-building to cost \$100,000. It will be three stories high with a deep basement, and will have 25 class rooms. It will, it is said, be the handsomest building of the kind in St. Louis.

St. Paul, Minn. — Hennessy & Cox secured the general contract to erect the factory building for the American Hoist & Derrick Co., at 63 S. Robert St. It will be of brick, composition roof, three stories, 60' x 100', mill construction; cost, \$20,000.

Terre Haute, Ind. — Press reports state that a new Y. M. C. A. building, to cost about \$50,000, will be erected in this city.

Washington, D. C. — Col. Theodore A. Bingham, Superintendent of Public Buildings and Grounds, by request of Senator Cullom, is making an estimate of the cost of a suitable addition to the White House, and it is now believed by many officials that the prospects of an enlargement of the execu-

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

tive mansion are better than ever before. With \$1,000,000 Colonel Bingham says he could place the executive mansion in keeping with the needs of a big and rich country. It is not known what form the plans will take, but it is agreed that the present structure shall be substantially preserved.

A syndicate of prominent New York capitalists are considering the erection of a new theatre in this city. The work of construction is expected to commence next spring. The plans will be prepared by Mr. Robert Head, of this city, and Mr. James McElfatrik, of New York City. The building will be erected on the steel framework plan and will be absolutely fireproof. It will cover an area 165' x 200'. The new play-house is estimated to cost \$250,000, and it is hoped to have it completed for the opening of the dramatic season of 1900.

Watertown, N. Y. — The Supervisors are considering the matter of erecting an addition to the court-house, to cost about \$25,000.

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New York, N. Y. — E. Thirtieth St., No. 135, five-st'y front flat, 20' x 88' 9"; \$20,000; o., Esther B. Wolfe, 106 E. 31st St.

Seventy-fifth St., 3 six-st'y & base, bk. & st. flats & stores, 25' x 88'; \$75,000; o., Louis Lese, 115 Broadway; a., Geo. F. Pelham, 503 Fifth Ave.

One Hundred and Twenty-second St., n s, 100' w Mt. Morris Ave., six-st'y bk. & st. flats, 50' x 84'; \$85,000; o., Etta Blinn, 255 W. 116th St.

One Hundred and Twenty-fourth St., n s, 100' w Amsterdam Ave., 2 six-st'y bk. bachelor apartments, 50' x 90' 11"; \$160,000; o., Wm. Preuss, Jr., 2750 Broadway; a., Neville & Bagge, 217 W. 125th St.

Eagle Ave., n e cor. 161st St., six-st'y bk. flat & store, 25' x 96'; \$25,000; o., MacDonald & Thomas, 41 Wall St.; a., W. C. Dickerson, 149th St. & 3d Ave.

E. Ninetieth St., No. 192, nr. 1st Ave., 3 five-st'y bk. & st. flats, 25' x 25' 4" x 80'; \$74,000; o., Herb & Seitz, 471 E. 90th St.

CHURCHES.

New York, N. Y. — Melrose Ave., s w cor. 151st St., two-st'y bk. church, 51' 8" x 122'; \$30,000; o., Church Immaculate Conception, 150th St. & Melrose Ave.; a., A. F. A. Schmitt, 604 Courtlandt Ave.

HOTELS.

New York, N. Y. — W. Central Park, n cor. 70th St., fifteen-st'y bk. & st. skeleton construction apartment hotel, 100' x 150'; \$700,000; o., The Aetna Real Estate Co., 1270 Broadway.

HOUSES.

Boston, Mass. — Cunard St., Nos. 37-41, 3 dwells., 23' x 51', flat roofs, hot water; \$24,000; o., J. Shoelman; a., C. A. Halstrom.

Montebello Road, nr. Walnut Ave., 2 dwells., 34' x 41', 36' x 38', pitch roofs, furnaces; \$15,000; o. & b., Oscar Johnson; a., G. A. Fuller.

Macwell St., nr. Evans St., 24-st'y dwell., 26' x 48', pitch roof, furnace; \$5,500; o., B. F. McKechnie; a., J. G. Eaton.

Columbus Ave., Nos. 772-76, 3 three-st'y dwells., 23' x 51', flat roofs, hot water; \$27,000; o., J. Shoelman; a., C. A. Halstrom.

Quincy St., nr. Magnolia St., dwell., 24' x 42', furnace; \$5,000; o., B. A. Dyer; a., S. Rantin & Son.

Newton, Mass. — Hammond St., two-st'y dwell., 41' x 61', steam; \$22,300; o., Mrs. T. C. Wales; b., McNeil Bros.; a., Winslow, Wetherell & Bigelow, Boston.

Montvale Road, two-st'y dwell., 34' x 36', furnace; \$6,000; o., Dr. Abbott; b., S. G. Steeves; a., Kendall, Taylor & Stevens, Boston.

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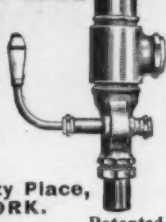
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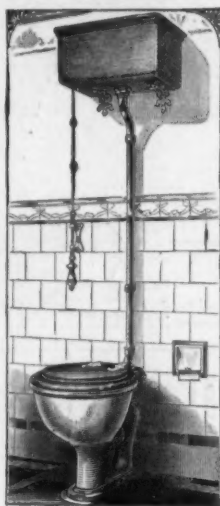
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E. Eighty-sixth St., No. 15, four-sty bk. & st. dwell., 25' x 100' 8"; \$25,000; a., J. R. Abney, 317 Lexington Ave.; a., Grosvenor Atterbury, 25 W. 32d St.

OFFICE-BUILDINGS.

New York, N. Y.—Cedar St., Nos. 51-55, fourteen-sty bk. & st. office-building, 65' 4" x 73' 6"; \$450,000; o., Mutual Life Ins. Co., 32 Nassau St.; a., Clinton & Russell, 32 Nassau St.

STABLES.

New York, N. Y.—Becker Ave., n w cor. Fulton St., Wakefield, two-sty fr. stable & carriage-house, 75' x 100'; \$5,000; o., Jas. A. Varian, on premises.

STORES.

New York, N. Y.—Boston Road, nr. 169th St., five-sty bk. & st. stores & flats, 50' x 67'; \$30,000; o., M. F. Crockett, 625 Madison Ave. & 65 E. 59th St.
Sixth Ave., nr. 21st St., six-sty bk. & st. warehouse & store, 197' 6" x 200'; \$750,000; o., Adams & Co., on premises; a., De Lemos & Cordes, Fulton & Nassau Sts.
E. Twenty-second St., No. 11, eight-sty bk. lofts, stores & offices, 26' 2" x 80' 9"; \$90,000; o., Wm. H. Stearns, 7 W. 118th St.; a., Chas. A. Rich, 35 Nassau St.

TENEMENT-HOUSES.

Brooklyn, N. Y.—N. Oxford St., n s. 374' w Myrtle Ave., four-sty bk. tenement, 28' x 62' 4"; \$9,500; o., Chas. H. Rathmeyer, 110 N. Oxford St.
New York, N. Y.—James St., Nos. 48-50, six-sty bk. tenement & store, 40' x 50' 3"; \$10,000; o., Ann Brown, 44 Madison St.
Second St., No. 128, six-sty & base, bk. & st. flat & store, 25' x 89', 100' 107' 2"; \$28,000; o., Julius Dreyfus, 324 W. 59th St.
Broome St., n e cor. Pitt St., six-sty bk. flat, 44' 8" x 50'; \$34,000; o., M. Silverman, 222 E. 103d St.

WAREHOUSES.

Brooklyn, N. Y.—Thirty-ninth St., s s. 494' w 2d Ave., 2 three-sty bk. warehouses & coffee roasting houses, 60' x 88', tar & gravel roof; \$15,000; o., Edw. Dannemiller, Canton, O.; b., M. E. O'Connor, 521 Willoughby Ave.

MISCELLANEOUS.

Brooklyn, N. Y.—Fulton St., n s. 423' 6" e Sackman St., one-sty fr. boxing arena, 54' x 93', gravel roof, steam heat; \$12,500; o., Herbert Dosey, 1580 Pacific St.; a., H. E. Funk, 1561 Broadway; b., A. Zink, 163 N. 3d St.

COMPETITIONS.

CITY-HALL.

[At Winchester, Va.] Plans will be received by R. T. Barton, Chairman Building Commission, until November 30, for a

COMPETITIONS.

brick and stone city-hall, to cost about \$35,000, to be built on Fairfax Sq. The court-room, judges' room, jury room, council chamber, etc., will be on the first floor; a theatre, with a seating capacity of 800 on the second floor. 1248

PROPOSALS.

COURT-HOUSE.

[At New Martinsville, W. Va.] Sealed bids will be received by the Clerk of Wetzel County until December 6, for the erection and completion of a two-story brick and stone court-house for Wetzel County, according to plans and specifications prepared by W. Chamberlin & Co., architects, Knoxville, Tenn. 1250

ELECTRIC LIGHT PLANT.

[At Christiansburg, Va.] Sealed bids will be received December 1st for the construction of an electric-light plant to cost \$10,000. GEO. W. WALKER, clerk. 1251

AUDITORIUM.

[At Topeka, Kan.] Bids will be received until December 15 for the erection of an auditorium. P. L. WISE, city eng. 1250

WATER-WORKS.

[At Charlestown, Mass.] Sealed proposals will be received until January 1 for the construction of a water-works and electric-light plant. C. R. HAY, eng. 1251

JAIL.

[At Greensboro, N. C.] Bids are wanted December 6 for a jail. W. C. BOREN, Chmn. Bd. Co. Commrs. 1251

ALTERATIONS TO COURT-HOUSE.

[At Ventura, Cal.] Bids will be received December 19 by the Ventura County Supervisors for alterations to the Court-house, estimated to cost about \$12,000. J. H. BRADBEER, of Los Angeles, architect. 1251

COUNTY JAIL.

[At Alexandria, Minn.] Bids will be received until January 4 for the erection of a county jail, from plans by Buechner & Jacobsen, architects, St. Paul. E. P. WRIGHT, county auditor. 1251

CHURCH.

[At Roanoke, Va.] Plans will be received until December 1 for a brick and stone Catholic Church. J. J. GARRY. 1249

STEEL CONSTRUCTION.

[At Benton Harbor, Mich.] Bids are wanted for the steel construction work for a \$30,000 opera-house, to be built by the Bell Opera-house Co. C. A. BREHMER, of South Bend, Ind., architect. 1249

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Treasury Department, Office Supervising Architect, Washington, D. C., November 21, 1899. Sealed proposals will be received at this office until 2 o'clock P. M. on the 19th day of January, 1900, and then opened, for the construction (except heating apparatus, elevator and electric wire conduits), of the U. S. Public Building at Helena, Montana, in accordance with the drawings and specification, which will be furnished at the discretion of the Supervising Architect on application at this office or the office of the Custodian of the site at Helena, Montana. JAMES KNOX TAYLOR, Supervising Architect. 1249

Treasury Department, Office Supervising Architect, Washington, D. C., November 15, 1899. Sealed proposals will be received at this office until 2 o'clock P. M. on the 21st day of December, 1899, and then opened, for the construction (except elevator), of the extension of the U. S. Court-house and Post-office Building at Jackson, Miss., in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Postmaster at Jackson, Miss., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1249

SCHOOL-HOUSE.

[At Hurley, Wis.] Sealed proposals will be received at this office until December 7, 1899, for furnishing all material and doing all labor necessary to erect and complete a two-story solid brick school-building to be built for Hurley, Wisconsin. Address all proposals to GEO. C. FOSTER, Hurley, Wis. 1249

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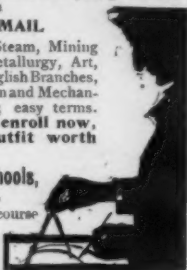
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SECTION 1. No Member should enter into partnership, in any form or degree, with any builder, contractor, or manufacturer.

SECTION 2. A Member having any ownership in any building material, device or invention, proposed to be used on work for which he is architect, should inform his employer of the fact of such ownership.

SECTION 3. No Member should be a party to a building contract except as "owner."

SECTION 4. No Member should guarantee an estimate or contract by personal bond.

SECTION 5. It is unprofessional to offer drawings or other services "on approval" and without adequate pecuniary compensation.

SECTION 6. It is unprofessional to advertise in any other way than by a notice giving name, address, profession, and office hours, and special branch (if such) of practice.

SECTION 7. It is unprofessional to make alterations of a building designed by another architect, within ten years of its completion, without ascertaining that the owner refuses to employ the original designer, or, in event of the property having changed hands, without due notice to the said designer.

SECTION 8. It is unprofessional to attempt to supplant an architect after definite steps have been taken toward his employment.

SECTION 9. It is unprofessional for a Member to criticize in the public prints the professional conduct or work of another architect except over his own name or under the authority of a professional journal.

SECTION 10. It is unprofessional to furnish designs in competition for private work or for public work, unless for proper compensation, and unless a competent professional adviser is employed to draw up the "conditions" and assist in the award.

SECTION 11. No Member should submit drawings except as an original contributor in any duly instituted competition, or attempt to secure any work for which such a competition remains undecided.

SECTION 12. The American Institute of Architects' "schedule of charges" represents minimum rates for full, faithful and competent service. It is the duty of every architect to charge higher rates whenever the demand for his services will justify the increase, rather than to accept work to which he cannot give proper personal attention.

SECTION 13. No Member shall compete in amount of commission, or offer to work for less than another, in order to secure the work.

SECTION 14. It is unprofessional to enter into competition with or to consult with an architect who has been dishonorably expelled from the "Institute" or "Society."

SECTION 15. The assumption of the title of "Architect" should be held to mean that the bearer has the professional knowledge and natural ability needed for the proper invention, illustration and supervision of all building operations which he may undertake.

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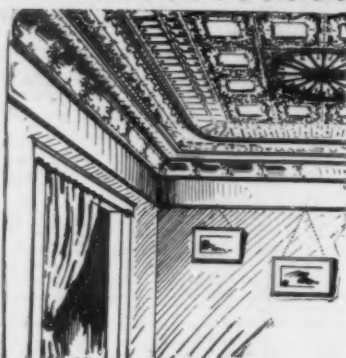
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