

THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. LXIV.

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No. 1224.

Entered at the Post-Office at Boston as second-class matter.

JUNE 10, 1899.

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THE New York *Evening Post* makes an alarming suggestion in regard to spruce timber. Every one knows that the supply of this material in the United States is limited, but it is still the common wood for framing. Now, as we are told, it is found by the owners to be far more profitable to sell their spruce for grinding into paper-pulp than for framing-timber. A cord of spruce, sawed into joists and studding, is worth about eight dollars. Made into paper, it is worth about thirty-five dollars, and the labor involved is about the same in each operation. Moreover, as anything in the shape of a spruce-tree, from an inch in diameter upward, can be ground into paper-pulp, the future forests are destroyed at the same time with those now mature, leaving the ground bare. There is a heavy duty on Canadian spruce, both in the form of lumber and pulp, and, of course, the effect of the tax is to hasten, and make more complete, the destruction of the American forests, whose owners cannot resist the temptation to make haste and cut away everything that they have, so as to sell it before a change in the tariff-policy of the Government reduces their profits. Without pine or spruce, the carpenters of the Northern States will find it hard to get materials for framing. For a time yellow pine will have to take the place of the cheaper woods, but the supply of this is none too large, and when the yellow pine is gone, we shall have practically nothing left. To us, educated in the notion, which has been handed down in the school geographies for fifty years, that the territory of the United States is abundantly supplied with forests, it is hard to realize that our timber supply, measured in proportion to our consumption, is smaller than that of most European countries, but our children will find this out, and some of them, probably, will earn their living by importing to this country timber from other countries which have been wise enough to make provision for time of need, while we have been clearing away, burning and destroying everything in the shape of a tree within our reach. It will be said that "great efforts" are being made in many of our States to educate the young to the importance of forests, by encouraging them to plant little trees on a certain day in the year; but the consumption of spruce in this country is now sufficient to strip bare nearly four hundred acres of forest land every day, and the efforts of a few thousand school-children, on one day in each year, count for nothing before such devastation.

IN several American cities attempts are made to regulate the sort of coal that shall be burned. In Boston, for example, a notice has been issued by the Superintendent of Streets to coal-dealers and others, saying that the use of the inferior grades of soft coal, which was temporarily permitted during

the scarcity of coal last winter, will no longer be allowed; and in some places the use of anthracite, in place of soft coal, has been made compulsory, or is likely to be so. As the supply of anthracite is limited, and is in the hands of a few persons, who would derive enormous profits from a law compelling its use in New York, or any other large city, legislation to that effect would be looked upon by the public with just suspicion, and there is no real reason why the use of soft coal should be prohibited. Of course, the pretext for preferring anthracite to soft coal is that the former burns without smoke; but soft coal, which is a very widely diffused and abundant substance, also burns without smoke if properly managed, and to place a million of people under heavy tribute to the anthracite mine-owners, simply because some of them are careless in using soft coal, ought not to be thought of. It is fair enough to prohibit the ejection of clouds of smoke from factory chimneys, and such prohibitions exist in almost all large cities; but it is quite possible to burn soft coal without the production of such clouds of smoke, and people who can do so should not have their choice of fuel interfered with. The newspapers, not without suspicion, sometimes, of stimulus from the anthracite dealers, frequently assert that smoke-prevention is impracticable where soft coal is used; but the facts do not support this theory. On the contrary, most unprejudiced observers will agree that, while smoky chimneys have not entirely disappeared, a great change has been wrought within the past twenty years in the atmosphere of cities which, like all foreign ones, and all in this country except on the Atlantic slope, use soft coal exclusively. In London, the worst place of all, where, twenty years ago, the sky could not be seen after ten o'clock in the morning, and, for the rest of the day, there was no visible difference between the sunny and the shady side of the street, the sun now shines, in pleasant weather, all day long, and blue sky and white clouds, although not so clear as they would be in the country, are still familiar objects to the dwellers in the middle of the metropolis; yet within that time the population of the city has increased about fifty per cent, and the area of the thickly-settled district has nearly or quite doubled. As the number of factories and fireplaces has certainly not diminished as the population has increased, and the Londoners burn the same sort of coal that they did a quarter of a century ago, the reason for the diminution of the smoke can only be sought in the improvement in methods of using fuel which have been brought about by the stringent smoke-ordinances of the city. Unthinking people say there, as they do here, that smoke cannot be suppressed by legislation, but experience proves that legislation has suppressed it there, to an extent which, two decades ago, no one would have believed possible.

A COMPETITOR for the New York Custom-house sends us a circular which he received from a "Graduate Architect, Detailer and Colorist," offering his services to "compose a successful design for the edifice," and explaining that his qualifications for this task were, "The Hand of Long Experience; A Quick Grasp of a Problem as to its Most Effective Possibilities; a True Style and a Perfect Scale with the Calculations of Perspective; the Unwritten Laws of Proportion Perfectly Mastered; and A Pleasant Rendering with Dispatch!" Unfortunately for this accomplished person, the one to whom his circular was sent already possesses a sufficient mental equipment to grasp his problems quickly, and to combine in his designs a "true style and perfect scale" with "unwritten laws of proportion" and "pleasant rendering," so that the stranger's services are not needed.

IT may be remarked that, in this country, very little designing is done by proxy, in the way suggested, in the offices of architects such as those invited to compete for the New York Custom-house. It is said that, in England, the "ghost" is not unknown, even in offices of high reputation, but he is here confined, as he is in France, mainly to those of the class of architects who combine a professional sign with speculating or contracting business. Of course, details must, in many cases, be worked out by subordinates, but there are very few good architects here who do not make their influence felt even in these. There can be no doubt that the tendency of American architects to express their own individuality in their buildings,

which they derive from the great artists in France, from whom so many of them receive instruction, is increasing, in connection with the awakening interest of the public in all artistic matters, and architects will do much to help themselves and others by recognizing this fact. Twenty-five years ago, the difference between a well-studied detail and one of the monstrosities turned out by contractors was appreciated only by professional men, and by a very small portion of the public, while now it is a matter of general attention; and enlightened judgment, in the public mind, soon follows intelligent observation.

MR. RICHARD PELHAM BOLTON read, a few weeks ago, before the American Society of Mechanical Engineers, some interesting statistics in relation to the cost of high office-buildings and their equipment. Including a moderate amount of exterior ornament, the cost of a building sixteen stories high, with steel frame and, of course, fireproof construction throughout, and inclusive of plumbing-appliances, elevators, boiler-plant, pumps, heating-apparatus, electric-light wiring for isolated service, with switch-boards, engines and generators, is, in New York City, from thirty-six to forty cents per cubic foot, measuring to the outside of the walls. Higher buildings cost proportionately more, and, of course, any sum may be spent on exterior enrichment. About one-seventh of the entire expense is in the boilers and engines, heating and lighting apparatus and plumbing. These must be of the very best type, if the building is to be profitable, for the saving of the repairs required for inferior apparatus, and the economy of fuel which can be secured by using triple-expansion pumps and compound engines represent a large proportion of the balance of income left over after deducting taxes and mortgage interest and necessary expenses. Even in the matter of fuel, a little forethought is a valuable investment. Nearly all the high New York buildings have coal-bin capacity only for two or three days at most, and many of them must have coal delivered every day. Under such circumstances, the cost of their coal is greater, while they are at the mercy of sudden strikes, or heavy snowstorms, which may expose them to the dilemma of paying extortionate prices for fuel, or damages to their tenants. In the Bowling Green building, the capacity of the coal-bins is four hundred and twenty tons, and this fact enables the managers to save about ten cents a ton, on an average, in the cost of their coal, and, probably, much more, indirectly, in the assurance of an ample supply.

A CURIOUS manifestation of "labor" sentiment, the explanation of which must probably be sought in the mental processes of the leaders, as it is incredible that any such notion should have occurred to the men themselves, happened in New York the other day. The Mayor and the Street-cleaning Commissioner took it into their heads that a parade of the street-cleaning men, in their neat white uniforms, would give pleasure to them and to the public, and it was announced to take place. Rather to the astonishment of the officials, they were soon afterwards waited upon by "representatives of the Knights of Labor and kindred organizations, and requested to abandon the parade, on the ground that the men would be 'degraded' by wearing in procession the clothes that they used in their ordinary work." Whether it would be more satisfactory to them to appear in dress suits, or with crowns on their heads, was, unfortunately, not ascertained, the Mayor simply ordering the parade to be given up.

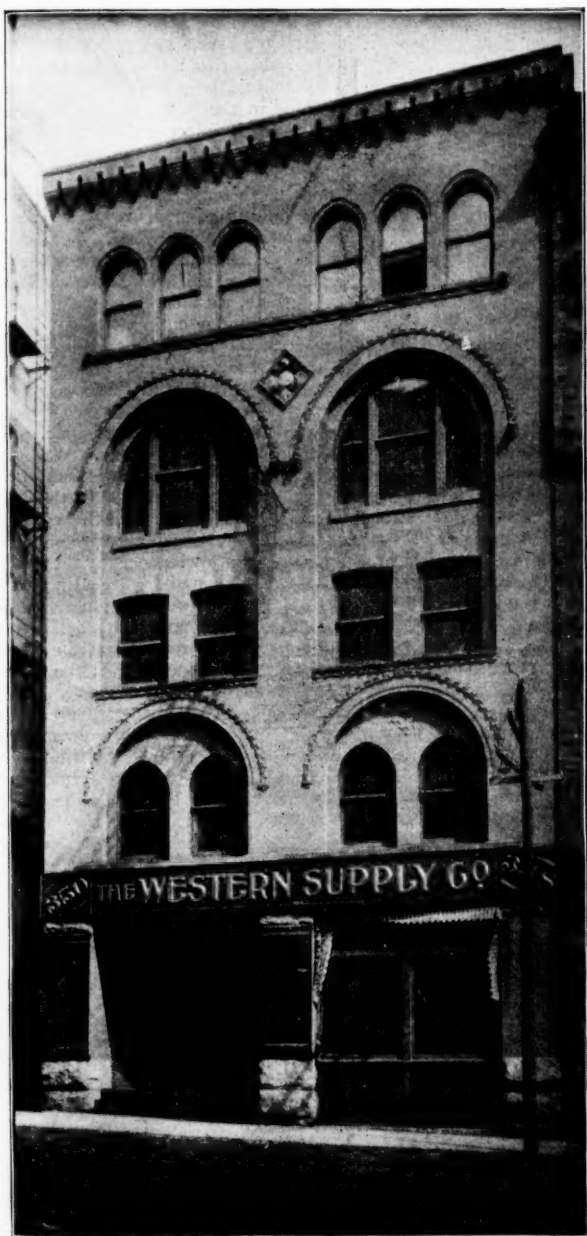
THE death of Rosa Bonheur removes from the artistic world one of its most interesting characters. Rosa, or, rather, Rosalie Bonheur, was one of four children of a poor artist of Bordeaux. When she was very young, her father removed to Paris, and she was sent to a good school, but she was so tormented by her richer schoolmates that her health gave way and her father took her away from school altogether, and let her devote herself to drawing and modelling. One day, she took some little figures to the boulevards and sold them for a trifle, and, soon afterwards, was fortunate enough to get a hundred francs for three pictures of her own pets, a dog, a cat and a hen. When she was nineteen years old, two of her pictures were publicly exhibited, and after that she was a regular contributor to exhibitions. She was passionately fond of domestic animals, and spent much of her time in the Paris markets, dressed in men's clothes, so as not to attract the attention of the rough market-men; and, later, when she was able to build a house and studio at Fontainebleau, she kept many animals of differ-

ent sorts. She received many rewards from her own people and from foreigners, and was an officer of the Legion of Honor.

THE old story of the subsidence of the shores of the southwestern portion of the chain of great lakes has been revived, and this time with a show of real evidence. According to Professor Gilbert, in the Report of the Geological Survey, actual measurements show that, within the last forty years, the average level of the water has fallen, on Lake Ontario, as compared with the shore, two or three inches, while it has risen about as much at Chicago and Milwaukee. According to Professor Gilbert, the greatest subsidence is along a line running from northeast to southwest, or about twenty-seven degrees west of south, and passing nearly through Chicago. As Chicago is built on low land, anything like serious subsidence is an important matter; and, although it will probably be two or three hundred years before any part of the city is submerged, the inhabitants of the Chicago of six generations hence are not likely to be any more fond of cold water than the present ones; and there are indications that subsidence has gone on irregularly, so that a sudden movement might have disastrous consequences. Another peculiar result of the change of level will be, in course of years, to throw the water of the lakes toward the Mississippi. Already, the streams which flow into the western part of Lake Erie and Lake Ontario, although tolerably swift in their upper courses, are nearly stagnant at their mouths, owing to the backing-up of the lake water into them, and, in the low country about Chicago, the continuance of the movement will, in course of time, send the water of Lake Michigan through the Chicago River into the Mississippi. Professor Gilbert thinks that, at the present rate, five or six hundred years will elapse before the lake water, in times of freshet, will find its way in that direction. In fifteen hundred years the flow will be constant; and in two thousand years the Chicago River and the Niagara will carry equal volumes of water. In thirty-five hundred years all the water of the lakes will flow to the Mississippi, and the Niagara River will be dry.

THE discussion upon the uses of aluminium, which continues in *La Revue Industrielle*, is of great importance to the building trades. At twenty cents a pound, copper is a more expensive material, bulk for bulk, than aluminium, and the latter is rapidly taking its place for electrical work, and many other purposes, among which would be reckoned builders' hardware, if a suitable quality of the metal could be produced. So far, it cannot be denied that the commercial aluminium is unsuited for the door-knobs, hinges, bolts and other similar articles, of which enormous quantities are consumed every year, for the reason that it blackens the fingers and clothes, like lead, and is liable to spotting and discoloration, like zinc, while it is soft, and at the same time gritty, so that surfaces which move on each other, like those of bolts or hinges, soon become rough, and either refuse to stir, or do so only with difficulty. This peculiar quality of ordinary aluminium, which interferes greatly with many of the uses to which it is otherwise adapted, seems to be due to the silicon, of which it contains a considerable proportion, apparently deposited in it in crystals, as graphite is in gray cast-iron. The silicon crystals, unlike those of graphite, are very hard, and when exposed, by the wearing away of the soft metal around them, they give a rough, scratching surface. We have seen an alloy, apparently of aluminium and iron, although the composition was kept secret, which, although not quite so light as pure aluminium and darker in color, was hard, smooth and quite elastic, and gave excellent castings; and the metal used extensively in this country for kitchen utensils, which is harder than pure aluminium, is also said to contain iron; so that it seems reasonable to suppose that more extended study will give us a material of the quality required. M. Ditte, in the *Revue Industrielle*, says that alloyed aluminium is more disposed than the pure metal to corrosion, but the nature of the alloy must have a good deal to do with this. Meanwhile, as M. Henri Moissan says, we must not be led, by finding that aluminium is not the perfect metal that we had supposed, into discouragement in regard to its value. A chemist of the bronze age, as he observes, on studying for the first time the qualities of iron, would probably have concluded, from its ready corrosion, that it could never have any industrial value; yet iron has rendered good service to the world, and aluminium, which is even more abundant than iron, is far less subject to corrosion, and weighs, bulk for bulk, less than one-third as much, should certainly have a useful future before it.

EXHIBITION OF THE BOSTON ARCHITECTURAL CLUB.



Wholesale Building for P. H. Gotzian, Esq., St. Paul, Minn. Mr. Cass Gilbert, Architect.

THE closing hour of such an exhibition as that held during the last fortnight by the Boston Architectural Club was not enough to give to so interesting a showing of architectural achievement, but it was really all that was allowed by circumstances and the fact that the exhibition was held in the gallery of the St. Botolph Club, which was open to the public during a portion of the day only. The general aspect of the room was very attractive, and had so different an air from that which has chilled the interest of lay visitors to other exhibitions, that the good sense of the committee was more than justified, and it will be a mistake not to let future exhibitions contain more photographs of completed buildings and fewer architectural drawings. The exhibition of drawings is interesting only to the professional, since drawings are not understood by the unimaginative layman, while a photograph is a thing which is understood and enjoyed by both lay and professional visitors. So it is far better "business" to show photographs rather than to show drawings: it is cheaper, too, since for the cost of a single show drawing an exhibitor can have his subject photographed from many points-of-view and in many sizes, and can have prints prepared after several methods and in a variety of media, and can finally select for actual exhibition just those results which show his work under an aspect most likely to attract a future client. The maker of exhibition drawings, whether the architect himself or his hired specialist, may feel that he is hardly used in not being allowed to lord it arrogantly over his brethren poorer in purse or in talent; but the tone, the character and the real business usefulness of an exhibition so largely made up of photographs as was this are so nearly what they should be, that other com-

mittees will be quite justified in neglecting the commercial interests of the makers of exhibition drawings.

The many people in the gallery were all interested and actually talking with a show of animation about the exhibits in every part of the room, and were not as usual collected with an air of listless indifference about the one or two drawings which had a more understandable aspect than the others. How many lay visitors have ever been able to take in Wilson Eyre's eccentric drawings? And of those who thought they did understand them, we wonder if most of them would not have expected the actual structure to be something greatly other than it became later on. For instance, we doubt whether the sketches Mr. Eyre may have made for the treatment of Mr. Beauveau Borie's garden would have suggested to any layman just the type and character of thing that was finally built. And in the same way we doubt whether the grand drawings—with all their Beaux-Arts elaboration of gardens, *rampes*, stairs, etc.—of the Free Museum of Science and Art of the University of Pennsylvania could have been expected by the layman to yield so meagre and uninteresting a set of photographs of the buildings when completed. Probably it is not fair to judge this group of buildings—for which Cope & Stewardson, Frank Miles Day & Brother and Wilson Eyre, Jr., are associated architects—by the photographs here shown, since they were small, and, like all the others showing the work of the Messrs. Day, ill grouped and unattractively framed. In fact that particular collection was about the only exhibit in the gallery which was, photographically speaking, below par, and did not do the justice to the skill of the designers that would have been done by their own architectural drawings.

Perhaps the exhibit in the room that was photographically most satisfactory was a rather large and very rich enlargement of the Milwaukee Public Library, by Ferry & Clas, a building in which the decoration has been applied with such judiciousness that the main façade gives the impression of a structure where the architects had at command all the money they desired; and yet we doubt whether of half a dozen architects in the habit of doing large work the majority would decide on a cost price that would be within quarter of a million of dollars of the real cost of this building, which does honor to the city, the building committee and the architects.

While photographs predominated, there were still enough drawings to keep us reminded that there are a large number of very skilful draughtsmen, each having a pronounced but agreeable style which offers fresh pleasure every time a new display of skill is presented to observation, and it is a matter of measurable gratulation that the Boston workers seem to make fewer concessions to exaggeration and trickery than do their fellows in some other places. The walls bore admirable examples of Bertram Goodhue's brilliant and artistic pen-and-ink work, in the churches at Brookline and Middleboro, while C. D. Maginnis in two other ecclesiastical drawings showed how an artistic result could be yielded by a method that was the very antithesis of Mr. Goodhue's. But the drawing which had more of the real sweetness of genuine feeling than any other in the room was one by H. Langford Warren, in pencil and chalk on green cartridge paper, and this also showed an ecclesiastical subject. Taken in connection with a group of photographs of details from some houses in Troy, N. Y., Mr. Warren's formed one of the most satisfying exhibits in the room and gave convincing proof that the students in the Lawrence Scientific School were fortunate in having over them a man who could reinforce precept by example.

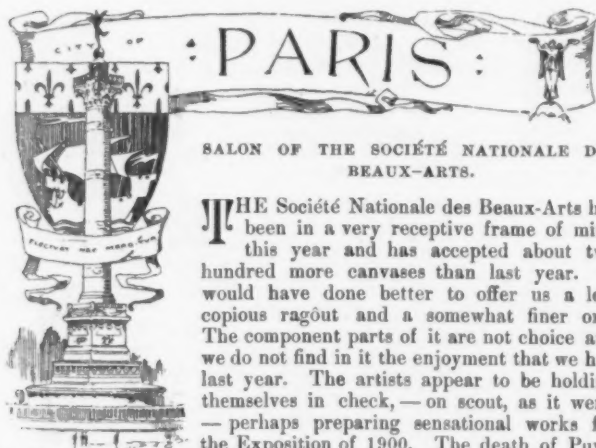
As examples of a different style and type of drawing, more architectural and formal and by so much less artistic, can be named Claude Fayette Bragdon's drawings of the Court-house for Livingston County, N. Y., designed by himself and his partner, Mr. Hillman, and the drawing by D. A. Gregg of the Groton School, by Peabody & Stearns. Then standing in a class by themselves, as always, there were some of the most interesting sketches of old buildings in Delaware and Pennsylvania done in colored chalks by Wilson Eyre, so charmingly and truthfully done that we cannot but regret the extremes of mannerisms and affectations he sees fit to indulge in when preparing drawings of his own designs for public exhibition. These chalk drawings formed a useful connecting link in leading the eye from the photographs and the composed drawings to the water-color sketches and water-color drawings pure and simple. Of the first there was a large group of small sketches by Mr. Edward C. Cabot, who, in spite of his years, is declared by his friends to do better work with his brush each summer. It would have pleased the author if he had stood by, as we did, and watched the careful scrutiny of one visitor—evidently a brother of the brush and water-bottle—as he rose from his chair for a closer scrutiny and then settled back into it again with the air of one who had just learned something. Of the other school, the school that does not disdain to use body color, the larger drawings of European subjects shown by Cass Gilbert formed a most satisfactory and harmonious group, some of which we would have been glad to see hung alone where nothing else obtruded on the eye.

Then, as foil to all this work of the later moderns, were hung a couple of drawings, one by John Ruskin and one by Samuel Prout, lent by Professor Norton, and each an admirable specimen of its author's skill, and yet one could not help wondering whether, great as this skill was and faithful and elaborate as had been the effort of each draughtsman, either of them would have thought it worth while to make the drawings if he had done his life's work in these days when one has only to press a button and leave to some one else to

develop a satisfactory architectural fragment. Would Ruskin have written as ardently if he, like travellers of to-day, had received his early impressions while the facile kodak was slung to his shoulders? Would Prout have become the skilled master of the lithographic crayon under the same conditions? The believer in Prout and Ruskin will of course protest that neither of them would have condescended to use so plebeian and inartistic a time-saver as a kodak, and yet one had only to look about this exhibition and note the difference in the judiciousness of the several operators to understand that photography is an art and the art that above all should be appreciated and honored by architects.

One other group of drawings served to round out the exhibition and make it very fairly representative of the architects' varied interests and many-sided occupations, and that consisted of Ogden Codman's interesting frames of drawings for interior decoration and furnishings.

Now, one ought not to go to an exhibition without being able to discover that the current of thought and interest is running pretty fairly in some one direction, and short as our visit was the impression we derived was that the current was setting pretty strongly just now in the direction of English domestic work, with a strong Tudor and Elizabethan cast, and the reason for this feeling we found to be this: We knew that the exhibition was to include samples of the work of some of the English architects whose names are most familiar in this country and we imagined that their contributions would be at once discernible; yet though we referred again and again to the catalogue, feeling that at last we had discovered the work of the Briton, we found each time that we had only uncovered a Yankee, and, as a matter of fact, we left the gallery without having discovered one of the contributions that had crossed the water, although a large percentage had the cosy, homelike look that one associates with English work. And the cause of this? That we feel is due very largely, if not entirely, to the very strong interest that has developed of late in landscape architecture, an interest that is felt not only by architects but by their clients, as was proved by the action of several visitors who were actually down on their knees examining and studying some of the plans of the Olmstedes which were hung below the line.



SALON OF THE SOCIÉTÉ NATIONALE DES
BEAUX-ARTS.

THE Société Nationale des Beaux-Arts has been in a very receptive frame of mind this year and has accepted about two hundred more canvases than last year. It would have done better to offer us a less copious ragout and a somewhat finer one. The component parts of it are not choice and we do not find in it the enjoyment that we had last year. The artists appear to be holding themselves in check, — on scout, as it were, — perhaps preparing sensational works for the Exposition of 1900. The death of Puvis de Chavannes seems to leave an immense vacuum in this society, of which he was the vice-president at the time of its foundation and its president since the death of Meissonnier in 1891. It is allowable to think that if he had lived he would probably have protested against the admission to the *Salon* of works that are absolutely grotesque and as art both vulgar and infantile.

The Société Nationale no longer has the excuse of its early years, when it was obliged to receive and accept pretty much everything in order to make a showing. It ought to-day to be more severe and not admit all the debauches of painting with which it has encumbered three or four supplementary halls. Here one meets with only maledroit and brutal imitations of Manet, Pissaro, Sisley and Monet, in which there is not enough of drawing, and, unfortunately, too much of color. It ought to have been courageous enough to show all these performers the door.

The National Society, like that of the French artists, contains a certain number of specialist imitators, wedded to a style and manner from which they never vary. This year the style of Cottet is very much in favor. This artist, who devotes himself to painting Breton scenes, obtained last year an immense success with a triptych (of which I wrote at length at the time), styled "*Au Pays de la Mer.*" This success encouraged a too large number of artists to adopt the Breton style. It is perfectly incredible what a number of Breton peasants are exhibited this year. And, as last year M. Cottet had his success with a sombre and gloomy scene, rendered in a tonality that was almost black, we have this year a succession of compositions and studies that are black and sad, expressing only mourning and grief. No, they are not gay, these Bretons of the Société Nationale! M. Cottet himself sets the example with a series of lugubrious scenes: some Ushant Islanders watching over a dead child, and four other canvases, all four of them named "*Mourning.*" This is altogether too much! all the more, that these canvases are stamped with real feeling, both in the attitudes and the dazed expression of the per-

sonages. To the dramatic character of the subject itself add the too dark tonality of the painting and you reach an impression which is absolutely lugubrious. And the pity is that M. Cottet is not the only one. M. Vail follows him closely with Breton scenes which are just about as gay. M. Charlet follows in lockstep, with a triptych which is evidently inspired by M. Cottet's at the last *Salon*, but of which the central portion is truly beautiful: It is meal-time, and at the family table a fisherman, standing, is gravely saying grace. The scene is fine in feeling, religious in the withdrawn attitude of the elders, natural and human in the indifference shown by the children — inattentive to the prayer of their father. But why should this be in such dark colors? Do they never have any sun in Brittany? It seems as if this must be the case, for M. Pelecier has seen his Bretons, also, in dark colors. In like manner, too, has Miss Bartlett, who imitates M. Cottet, and again, also, M. G. Roger, who does just as the others do. Decidedly, these Bretons are very dingy creatures. Yet M. Simon has seen some which are a little cleaner, some peasants wrestling in the sunshine, with bared breasts, before an audience of their fellows on their Sunday outing. Here at last are some brilliant colors; the scene has movement and is well sketched in. I should only blame M. Simon for a workmanship which is rather summary and brutal; but after all these weepings and wailings this picture of his gives real pleasure.

There are few large compositions at the Société Nationale, and decorative painting is represented in only a modest way. Without absolutely being decorative, the commemorative souvenir of the laying of the first stone of the Alexander III bridge is one of the fine things at the *Salon*. The author, M. Roll, has recalled the episode of the young girls as they came to offer the Czarina a vase of flowers. These young girls, in white, seen from behind, occupy the lower portion of the painting, and bend in salutation before the Czar and Czarina, the latter occupying the centre of the composition and having on her left the President of the Republic. The officials are grouped about the sovereigns, and in the background float the festal oriflammes and banners. The general effect is delightful; the tones are very luminous and marred by no violent touches; everything blends well and harmonizes in a warm and vibrating atmosphere. M. Roll has known how to escape the cold and official character of this kind of documentary painting, not only in the painting itself, but even in the carved wood frame, composed by himself and harmonized with the painted scene by a nymph's figure perched on the prow of a boat and symbolizing the Seine. This sculptural portion silhouettes itself against the lower portion of the canvas and in the most satisfactory manner breaks the monotony of the usual grand, classic, straight frames.

M. Dubufe has certainly been animated with the most praiseworthy of admiring and respectful intentions in composing his grand decorative panel to the memory of Puvis de Chavannes. The grand artist is seated in the foreground, in a meditative attitude — which would be very suitable for a poet — and surrounded with symbolic figures of a greenish tone, which he would never have allowed to take a place in any of his own decorative work. The intention of M. Dubufe is more praiseworthy than the execution of this act of homage which Puvis de Chavannes could very well do without. Facing this rather colorless canvas, M. Boutet de Monvel draws the attention with a startling decoration intended for the basilica at Domremy and representing Joan of Arc at Chinon, kneeling before the king, whom she recognizes in the midst of the lords of his court. M. Boutet de Monvel is a charming illustrator and a delightful water-colorist, knowing how to model the unformed yet graceful features of children and young girls. Having a fancy for abandoning this style of work — work in which he is master — and desiring to pass upward to grand decoration, he ought, perhaps, to have changed his method of work and sacrificed the minutiae of his drawing. Not having done so, many of the details of his countenances are wholly lost and inappreciable at a distance, and so will only produce an impression of a lack in the modelling which in actuality does not exist. This impression is all the more emphasized by the relief of the rich clothing of the members of the court, braided and frogged with embroideries in gold, detailed in full relief, all of which make the countenances appear all the more flat. It is true that when once in its intended place, this sparkling decoration, catching the light, will, perhaps, have a very good decorative effect, which one does not suspect here at the *Salon*.

When will artists have the courage to decline to exhibit their decorative compositions away from their intended settings? The ceiling by M. Besnard is very attractive and harmonious in color, although exhibited vertically and receiving the light from above, which is not the ordinary case with ceilings. Groups of women, clad in yellowish stuffs, whirl about, with a sufficiency of confusion, in the midst of a blue and star-lit sky; these are "*The Ideas.*" The general effect has a Japanese air which does not lack charm. In other decorations of panels and *dessus de portes*, M. Besnard preserves his qualities as a colorist without falling into his habitual defects in the way of extravagance. M. Dubufe, independently of his homage to Puvis de Chavannes, exhibits a charming and vaporous decoration, "*Faith, Hope and Charity,*" intended for one of the new halls at the Broca Hospital: three symbolic figures advancing lightly under a sun-lit arbor. The effect would be in perfect harmony but for the garland of oranges which enfames the composition with a bordering of yellow and brutal spots which catch the eye.

What can be said of "*The Battle,*" by M. Anquetin? It is an

allegory full of movement, a design voluntarily drawing its inspiration from the old masters, where naked horsemen, anatomically exaggerated, mounted on strange horses, with smoking and flying manes, engage one another furiously. It is alleged that the artist painted this great canvas in forty-two days. This may be an excuse, but it is not sufficient to cause one to accept horses of such an outrageous violet color.

Few artists of the Société Nationale preserve a happy balance between exaggerated coloring and the blacks of M. Cottet. The very portrait-painters observe these extremes, and M. Carrière is always faithful to gray and misty tones, whence emerge, with little distinctness, faces in which the black eye-balls appear to puncture holes. It appears that the initiated experience before these canvases an impression of nature that is truthful and painfully human. Not being of these initiated, I persist in feeling that while, as drawings or etchings, the works of M. Carrière would have a certain color in their uniformity, as paintings they are totally lacking in color.

I will not make the same complaint of M. Montenard, who continues his series of decorative paintings intended for the Hôtel des Agriculteurs de France. This year "The Vintage" shows us a group of workers at the wine-press, under the shadow of a portico supporting a vine, through whose leaves filter rays of a warm sun. In the background is the hillside, where robust peasants are engaged in the vineyard, which stretches away into the misty distance. Another painter of life in the fields, M. Lhermitte, in four robust and truthful canvases, gives us an impression of nature and humanity. His peasants well express the labors, the lassitudes, and the healthy and tranquil joys of rural life, without the somewhat affected note that is observed in the canvases of M. Muenier, and the rather fictitious lighting with which the latter envelopes his personages. M. Muenier has a good deal of talent, and last year I mentioned a little canvas of his which recalled the good work of Millet. Those which he exhibits this year are stamped with a rather too sentimental feeling which smacks of the romantic.

I cannot say much for the landscapists who, at the Société Nationale, seek after effects which are often strange; which, although they sometimes produce more or less decorative results, do not have any very great connection with nature. Nevertheless, I must mention the fine canvases of M. Damoye and M. Iwill, whose Venetian views are charming, as are the landscapes of M. Billotte, who knows how to translate with sincerity the melancholy feeling that comes with the dusk.

Just as at the Société des Artistes Français, we find with the Société Nationale many portraits, but we generally feel an intention to avoid simplicity at any price. The portraits at the Société Nationale, with some few exceptions, affect an archaic character whose utility is open to doubt. From the documentary point-of-view of a given epoch, such archaism is nonsensical. Apart from this, the portraits by M. Aman Jean are interesting. Why M. Gandara, having to paint three young and pretty women, makes three gloomy and sombre portraits, turning their melancholy profiles towards a blackish background, no one can discover. Their toilets are a dingy gray, with the exception of one, which is rose-colored and passes well enough for being brilliant. In a well-lighted parlor, such as is common to-day, these portraits would evidently make mere blotches. Nevertheless, there is much talent shown in them. Decidedly, the painters of the Société Nationale have gloomy ideas. Several of them take their inspiration from the primitives, as does M. Van Hove, who exhibits, in the same frame, two heads of young girls, the drawing carried to the farthest extent and the execution most carefully carried out. MM. Roderstein and Leempoels recall the Dutchmen. With them, also, the drawing is carried to the farthest limits of minuteness, but the impression is still cold.

M. Jean Béraud returns to the Parisian scenes which he seemed to have abandoned a few years ago for "mystico-modern" subjects of doubtful taste. His "Leaving the Conservatory" is very amusing, and his young *ingénues*, while waiting for a *succès de théâtre*, seem to be trying to win a more facile success with the young or old fellows who await their exit. It is very attractive and quite Parisian. Intelligence is not wanting, either, in M. Jean Veber, but in his case there is more fancy, and his imagination recalls that of M. Gustave Doré when he used to yield himself to preparing his fantastic compositions. His "Battle of Women in Devonshire" seems to take place in a very nightmare country: two naked women, sufficiently ugly and mature in years, are fighting furiously with one another before an attendance of old, toothless and grimacing witches, ranged on benches about a hall. It is at once amusing and painful at the same time; yet, in any case, it is very well painted. Another little canvas by the same artist shows us a small girl, flying terror-stricken through the market-place of a village, whose house-fronts are all turned into faces. The doors and the windows are arranged in such a fashion as to have eyes, noses and mouths. It is an illustration of some fantastic child's story.

There are relatively few nudités at the Salon of the Société Nationale. Among the most interesting we notice those of M. Stewart, who poses his models in the open air (doubtless in a park reserved for the purpose) and in a most skilful manner causes to play over their naked flesh the sunlight falling through the foliage.

Every year a whole room is reserved to the work of a single artist. This year it is M. Cazin, master landscapist, who exhibits a series of studies and drawings which prove with what sincerity this artist studies nature and seeks her most secret inspirations. Side by side

with these drawings, M. Cazin exhibits ten beautiful landscapes, three of which are Scotch and Dutch.

It would be very difficult to even rapidly run over the exhibits of sculpture which, divided between the two Salons, count 1,015 exhibits. As usual, there are many things that are commonplace, but we also encounter here and there superior works and some samples of grand art. Very curious indeed is a statue, "Nature unveiling Herself," by M. Barrias: a very graceful female figure holding above her head the supple stuff which she is removing; the torso alone is nude, the lower part of the body being still draped. The effect is peculiarly curious in that this statue is carved in marble of three colors: the torso is of white marble, the drapery held above the head and shading the figure is of yellow, while the drapery covering the lower portion of the body is of reddish Algerian onyx. Independently of the interest which this work presents from the point-of-view of difficulty of execution, it has an incomparable richness of aspect.

We all remember the passionate disputes which took place last year over Rodin's statue of Balzac. The Société des Gens de Lettres were not willing to accept it, and M. Falguière was commissioned to make a new model. But alas! The Balzac of M. Falguière is hardly better than that of M. Rodin. Here is the same formless bundle and the same heaviness. M. Falguière has stuck to the dressing-gown of the illustrious writer, but in place of leaving him standing, as Rodin did, he has made him sit down and cross his legs, and while the mask is less brutal, it is absolutely lacking in expression. After these two unfortunate experiments the best thing that could be done would be to let Balzac alone. If people wish to erect a monument to him—which would be a very proper performance—the author could perhaps figure in it in the way of a bust or a medallion which would do honor to his memory without immortalizing his hardly æsthetic personal figure.

Many people go into ecstasies before M. Rodin's bronze "Eve." Standing on the ground, in the midst of the spectators, and of life-size, Eve appears to be much troubled at being exposed to their stares, and conceals her face under her bent arm, all shame-faced at her sin. And people as they look at her cannot help feeling sorry for Adam at having had a wife so ungraceful and vulgar. It is true that he had no choice, and the first woman was probably less refined and more rustic in figure than the *élégante* of modern times. But we don't know anything about it, and, in this state of uncertainty, M. Rodin, without giving his figure an air of extreme elegance and distinction, might have shown us something a little more attractive. Moreover, the figure lacks balance, and makes one fear that Eve may have another fall. M. Rodin, however, makes good his reputation with two very beautiful busts of M. Falguière and M. Rochefort.

The section of objects of art is the one in which both Salons are most in harmony. It is here that is exhibited in an almost equal manner the new and modern results of art applied to familiar objects: furniture, pewter, silverware, jewelry, etc. The furniture is very often inspired after the English manner, where the logic of construction is often sacrificed to originality. Many of these pieces of furniture are disquietingly unstable in the matter of equilibrium, and their forms through seeking to avoid symmetry become halt and lame.

The artists in jewelry are generally interesting: the Laliques, the Nocqs, the Brateaus, and several others, may succeed in leading our jewelers and silversmiths to change their superannuated forms and add a little more artistic fancy to their models, which scarcely ever abandon the styles of Louis XV, Louis XVI and the Empire. Already a movement is felt which favors modern jewelry, and certainly we are for this beholden to the annual exhibitions of *objets d'art* inaugurated by the Société Nationale des Beaux-Arts at the time of its foundation and continued since that time by both Societies with an always increasing importance.

The Universal Exposition for 1900 will surely present us, from the point-of-view of progress in industrial art, some interesting surprises.

ILLICIT COMMISSIONS.



IN the course of his recent remarkable address to the Upper House, when introducing a bill for the suppression of secret commissions and other nefarious practices, the Lord Chief Justice cited instances of underhand dealing in nearly every department of professional and commercial life. His speech, as reported in the *Times*, is of such great interest and will have been so widely read that it is unnecessary to refer to it at any length. Before dealing with one or two of its important features, however, a short exposition of the doctrines of the common law upon the question of secret commissions may be found useful. It has always been a fundamental idea both at common law and in equity that between principal and agent there must be perfectly fair dealing. In appointing an agent to transact a negotiation it is essential that a man should be able to place unbounded confidence in his representative, who acts not on his own behalf but for and in the shoes of some one who pays him at an agreed figure. Anything in the nature of fraudulent concealment or secret commission places a limit upon the confidence which a principal, in justice to himself, should be able to place in his agent. Moreover, in becoming party to such a concealment the subordinate renders himself liable to an action at law. For the present purpose it is only necessary to refer to the case of *Morrison vs. Thompson* (L. R. 9 Q. B. 481), which was tried in the Queen's Bench Division so long ago as 1874.

In that case an action was brought by the purchaser of a steamship called the "Atrato" to recover from the defendant, Thompson, who had been employed by the plaintiff as broker to purchase the ship as cheaply as possible, the sum of 225*l.*, which he had received by way of commission on the sale. It came to light at the trial that Mr. Morrison had authorized his agent to negotiate for the purchase of the ship on the basis of an offer of 9,000*l.*, but the ship was eventually purchased for 9,250*l.*

Some time prior to the sale an arrangement had been made between the vendor and a broker named Scott, through whom the ship was sold, that if Scott could sell the ship for more than 8,500*l.* he might retain for himself whatever could be obtained in excess of that amount. The defendant was aware of this arrangement at the time when he was negotiating with Scott for the purchase of the vessel, but it was unknown to the plaintiff, and before the sale it was arranged between Scott and the defendant, without the knowledge or sanction of the plaintiff, that the defendant should receive from Scott a portion of such excess of purchase-money. The vessel having been sold for more than the 8,500*l.*, the sum of 225*l.*, part of the excess, was paid to the defendant without the plaintiff's knowledge or consent. A more flagrant case of double commission can hardly be conceived. In the course of his judgment, Cockburn, C. J., said: "In our judgment, the result of these authorities is that whilst an agent is bound to account to his principal or employer for all profits made by him in the course of his employment or service, and is compelled to account in equity, there is at the same time a duty which we consider a legal duty clearly incumbent upon him, whenever any profits so made have reached his hands, and there is no account in regard to them remaining to have taken and adjusted between him and his employer, to pay over the amount as money absolutely belonging to his employer." Judgment was given for the plaintiff for the full amount. This is but an instance of a number of similar cases.

In Mr. Story's famous work on "Agency" we find the following passage: "It may be laid down as a general principle that in all cases where a person is either actually or constructively an agent for other persons all profits and advantages made by him in the business beyond his ordinary compensation are to be for the benefit of his employers." And in *Gillett vs. Pepercorne, Langdale* (M. R.) said, "Where a man employs another as his agent, it is on the faith that such agent will act in the matter purely and disinterestedly for the benefit of his employer, and assuredly not with the notion that the person whose assistance is required as agent has himself in the very transaction an interest directly opposed to that of his principal."

So much for the attitude of the common law. Transactions which have hitherto been set aside as void for want of good faith are in future to be stamped as criminal. By the third clause of the proposed Act:—

"Every valuable consideration given or offered to any agent by any person having business relations with the principal of such agent shall be deemed to have been corruptly given or offered unless it be proved (a) that the principal had given his consent thereto, or (b) that the valuable consideration was not calculated or intended, and had no tendency, to corrupt the agent by inducing him to do or to leave undone something contrary to his duty, or by creating any other undue influence on the mind of the agent." It will be seen that this clause is carefully framed so as to exclude from the operation of the Act the thousand cases in which perfectly harmless commissions are paid in everyday life.

One of the most important conclusions at which the select committee of the Chamber of Commerce have arrived is that in which they state that in many cases bribes often given unwillingly in the first instance gradually become a necessity to those who have every wish to deal fairly by their employers. Tempted at the outset of his commercial career to secure an order by this means, the unfortunate traveller finds that unless he continues to secure customers in this way the pages of his order-book remain blank. Such men, to use the Lord Chief Justice's words, "hate the practice and want to get rid of it, but feel bound hand and foot."

It should be observed that the principle of the proposed measure is not new. The Act of 1885, passed at the instance of Lord Randolph Churchill, made bribes to employes or officials of public bodies a criminal offence, to be dealt with by severe punishment, and that Act has effected the purposes for which it was passed. If we are at liberty to judge from the paucity of convictions for offences of this kind, it would appear that the Corrupt Practices Act has almost eradicated the evil which it was intended to expunge. It is sometimes urged that the difficulty of obtaining evidence will render the proposed Act a mere dead letter. To surmount this objection there is to be a provision which will require a witness to answer incriminating questions, subject to an indemnity from the judge who tries the case. Guarded as it will be by the condition that no action shall be taken except through the attorney-general, we have no doubt that the new Act, even though it does not stamp out, will do much towards the extermination of the canker which infests both root and branch of our commercial system. Render a particular course of dealing criminal, and you at once place it outside the pale within which honest and straightforward commercial men must ever exercise their calling. If the Act is successfully carried through both Houses before the close of the present session one more useful statute will have been placed upon the book. — *Engineering*.

ECONOMICS OF LIQUID AIR.

IN conversations reported by writers in *McClure's Magazine*, of recent date, and in the *Strand Magazine*, for April last, and copied in a number of weekly and daily periodicals, Mr. Tripler has definitely committed himself to the belief that he can make his apparatus produce without cost unlimited quantities of liquid air, to be used as a source of power.

"It actually makes itself. Once start a liquid-air machine, and it goes on manufacturing liquid air indefinitely, without any help or attention." "I have actually made about ten gallons of liquid air in my liquefier by the use of about three gallons in my engine. There is, therefore, a surplussage of seven gallons that has cost me nothing, and which I can use elsewhere as power."

The foundation on which all this rests is a mistake made by Mr. Tripler in the interpretation of some of his experiments with the apparatus, which he constructed on the European model — a mistake as gross, and as vital, as that which he had made before in his patent of 1893. In that patent he had overlooked the sensible heat due to compression, and the necessity of providing for its removal. In his recent experiments he has overlooked the latent heat given out by condensation and the necessity of providing for the removal of that heat. "We have just begun discovering things about the world," says Mr. Tripler, in his modest way. It is, indeed, very likely that by this time he has just begun discovering some elementary truths.

Working without this magical application, by which the liquid air is supposed to produce itself, and in the same humdrum way as Dr. Hampson and Dr. Linde, Mr. Tripler is able, like them, to produce liquid air at a cost, as he himself estimates, of about 10*d* a gallon or 1*d* per pound. This pound, or pennyworth, of liquid air, expanding to the volume of thirteen cubic feet of air vapor at atmospheric pressure, will do a certain amount of work in an engine. Half a pound of water will also expand to thirteen cubic feet of steam at atmospheric pressure, and, expanding from a smaller volume, will do more work than one pound of liquid air. But half a pound of steam, made in a good steam-raising apparatus, only costs one two hundred and fortieth part of a penny. For equal quantities of power, therefore, liquid air is mathematically more than two hundred and forty times as dear as steam, and practically the difficulties of handling it will make it compare more unfavorably still.

A few instances may be quoted of the wild statements with which Mr. Tripler's promises are bolstered up: "Liquid air, costing but a trifle, has an enormously greater expansive power than steam." Weight for weight, the trifle it costs is 120 times the cost of steam, and its enormous expansive power is half that of steam. "Enough liquid air to run a steamer across the Atlantic could be made for £50, instead of using 2,500 tons of coal at a cost of £2,500." Twenty-five hundred tons of coal can be made to raise 25,000 tons of steam, and £50 would, at Mr. Tripler's own estimate of 10*d* a gallon, provide less than six tons of air vapor from liquid air, with an expansive force not so great as that of three tons of steam. "A quart of liquid air would blow up the Rock of Gibraltar." The strongest and heaviest receptacle that could be made of steel would not hold a pint of this marvellous substance hermetically sealed." Ignorance and absurdity reach their limits in this statement. A steel tube of 3-inch diameter, 1½-inch bore, and 14 inches long internally, if hermetically sealed at both ends, would hold a pint of liquid air within the limits of safety for compressed gases recommended by the Home Office Committee; and a similar tube of twice the length and open at the upper end would contain a quart, which, with a suitable joint, could be held down by the weight of less than eight cubic yards of the Rock of Gibraltar. In face of all this, American newspapers have stated that companies were being formed for the manufacture and distribution of liquid air as an agent for producing power and refrigeration. — *London Telegraph*.



SKETCH-CLUB OF NEW YORK.

THE last regular monthly dinner meeting of the Sketch-Club of New York was held on Saturday, June 3, 1899, at "Columbia College Tavern." The business meeting was short and concise, after which Professor Hamlin, of Columbia College, a guest at the dinner, visited with the members the exhibition of the School of Architecture in Havemeyer Hall, on the College Grounds, explaining every detail of the working order of the school. The members of the Club, including guests, then returned to the Tavern, where an able programme was rendered by Messrs. Augustus Wolcott, H. Barron, C. J. Dierckx, L. Keiffer and others, giving the final meeting of the season a fitting farewell.

ADOLPH MERTIN, Recording Secretary.

MUNICIPAL OWNERSHIP IN MANCHESTER, ENG. — The city of Manchester, Eng., which furnishes the most advanced example of municipal socialism, has made a new departure by adding manufactories of soap, tallow, oil, glue and fertilizer to its garbage and sewerage department. The City Government now owns street car lines, gas, electric-light and water-works, ice-factories, fifteen markets, baths and public laundries, slaughter-houses, cemeteries, cheap lodging-houses, technical schools, art-galleries and workshops for the manufacture and repair of its vehicles, tools and implements. — *Springfield Republican*.



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

HOUSES OF MR. BUTLER AND MR. GUTHRIE, PARK AVE., NEW YORK, N. Y. MESSRS. MCKIM, MEAD & WHITE, ARCHITECTS, NEW YORK, N. Y.

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

HOUSE FOR GEORGE H. DAGGETT, ESQ., MINNEAPOLIS, MINN. MR. HARRY W. JONES, ARCHITECT, MINNEAPOLIS, MINN.

ATRIUM, TABLINUM AND PERISTYLIUM OF A ROMAN HOUSE: THE HALLS OF THE ANCIENTS, WASHINGTON, D. C. DESIGNED AND ARRANGED BY MR. FRANKLIN W. SMITH.

ONE of the pleasant incidents of our attendance at the convention in Washington, last fall, was happening just at dusk upon an unfinished building whose façade on the street was of very unusual character, and the presence of two large unfinished cylinders, reaching some forty feet into the air, did not help to explain matters.

Finding the door ajar, we ventured to enter the building, and to our great surprise and interest we discovered that we had happened upon, in its incomplete form, that very interesting piece of educational enterprise undertaken by Mr. Franklin W. Smith, and to which we have more than once referred — the Halls of the Ancients, as Mr. Smith styles them. This is one of the steps by which he and his backers hope to bring about the establishment at some later day, either by private or Government aid, of a very elaborate and costly series of similar structures — grouped under the title of the National Galleries of History and Art — which shall, in the same general method as this Hall of the Ancients, and like the earlier undertaking, the House of Pansa, at Saratoga, exhibit the character of the architecture and art of all countries and all ages.

Even in its then unfinished condition, and in the early dusk of a fall evening, it was easy to perceive that the Halls of the Ancients was shortly to become a very interesting show-place in Washington, in which all of the several divisions of the great structure were carried out with an admirable completeness and with details which were based on close study and research and after consultation of the best authorities. It is a satisfaction to be able, this week, to exhibit certain views of the many rooms in this building, which Mr. Smith has been good enough to send us just before he left the country, worn out with the labors and anxieties of bringing this portion of his great undertaking to a completion.

PINACOTHECA AND PERISTYLIUM OF A ROMAN HOUSE IN THE SAME.

ECUS AND LARARIUM: ROMAN HOUSE IN THE SAME.

TABLINUM AND PERISTYLIUM: ROMAN HOUSE IN THE SAME.

THRONE OF XERXES, IN THE ASSYRIAN ROOM: IN THE SAME.

INTERIOR OF EGYPTIAN HOUSE IN THE SAME.

ACCESSORIES OF LANDSCAPE ARCHITECTURE, NO. LXXI: GRAND CASCADE WITH GROUPS OF "DIANA AND ACTÆON": PALAZZO REALE, NEAR CASERTA, ITALY. VANVITELLI, VIOLANI, BRUNELLI AND OTHERS, ARCHITECTS AND SCULPTORS.

FORT CONSTITUTION, NEW CASTLE, N. H. MEASURED AND DRAWN BY MR. J. A. WILSON, ARCHITECT, BALTIMORE, MD.

FORT CONSTITUTION, at the mouth of the Pisquataqua River, New Castle, N. H., is probably the oldest, as it is one of the most interesting, fortifications in New England. It was commenced by Capt. Walter Neale, in 1630, and was "mounted with ten guns." In 1686 New Castle was incorporated and became a port of entry, and a shot was sent across the bows of any vessel which did not pay its dues, and if she afterward submitted the cost of the shot was added to the customs charges! In 1694 the king presented the fort with "divers great guns," and it was enlarged and repaired, the name of "Fort William and Mary" being given to it. On the 14th of December, 1774, it became the scene of the first overt act of the New England patriots. On that night the Portsmouth "Sons of Liberty," led by Capt. Thomas Pickering, surprised the sentry and captured the work. One hundred barrels of powder and all the small arms were seized and carried to Durham, where most of the powder was secreted under the meeting-house. It was afterward carted to Boston by ox-teams, just in time to be used against the British at the battle of Bunker Hill. In 1806 the name of the fort was changed to "Fort Constitution," and it was repaired and restored to the condition in which it substantially remains. These repairs were

probably finished in 1808, as this is the date cut upon the marble key-stone of the main gateway. During the Civil War, in 1863, a granite work was planned to enclose it on three sides, and one of the sea faces was demolished to allow room for the new fort. This was only partly completed, otherwise the original fort is in very good preservation. The magazines, probably the same from which the powder was taken 125 years ago, are still perfect. The grass-grown parapet, and the crumbling sally-port, with its oaken gates and massive portcullis, make an interesting picture, sketched by many a summer tourist.

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

CONCOURS DE FACADES: "LE CASTEL BERANGER": HOUSE IN THE RUE LA FONTAINE, PARIS, FRANCE. M. GUIMARD, ARCHITECT.

CONCOURS DE FACADES: HOUSE IN THE RUE DE GRENNELLE, PARIS, FRANCE. L. P. MARQUET, ARCHITECT.

THIS and the preceding illustration are copied from *La Construction Moderne*.

[Additional Illustrations in the International Edition.]

VIEW TOWARDS THE PULPIT FROM THE NORTHEAST TRANSEPT: MÜNSTER CATHEDRAL, PRUSSIA.

[Gelatine Print.]

ABOUT the year 795, Bishop Ludgerus founded a monastery, which was to serve as the seat of the political, as well as the ecclesiastical, government of the northwestern portion of the territory occupied by the Saxon tribes whom Charlemagne had vanquished and subjected to his rule. A village soon grew around the monastery and began to develop an extensive trade, rising gradually to such importance that, in 1180, it was given city-privileges and the right to build fortifications. From this time on, the town appears in the old chronicles under the name of Münster, a contraction of the Latin word, Monasterium. Having joined the Hanseatic League, about 1250, the city attained great prosperity, and became a seat of learning and art-culture. This happy development, however, received a sudden check when, A. D. 1533 to 1535, the Anabaptists spread riot and anarchy throughout the town, and their leader, John of Leyden, proclaimed the "New Kingdom of Zion." Not until 1661 did the episcopal power repossess itself of the town, when Bishop Bernard of Galen, after thrice laying siege to the city, occupied it, depriving the citizens of nearly all their liberties. In both the Thirty Years' War and the Seven Years' War Münster suffered severely. Although the bishopric was secularized in 1802, the city continued to be prominent among the Westphalian towns, it being the capital of that province.

Among the numerous remains of mediæval architecture, the mixed Romanesque and Gothic cathedral is the most noteworthy. This old edifice, on the heights of the Horsteburg, was begun by Bishop Duodo (969 to 993). His successors in office continued the work, enlarging the plan as they went along, until, in 1265, the church was declared to be completed. The plan is of the basilica type, having one east, and one west transept, a west choir with straight termination, flanked by large square towers, each tower containing a lower and an upper chapel opening out into the transept. The east choir terminates polygonally and is encircled by an ambulatory aisle and radiating chevet-chapels.

The exterior of Münster Cathedral is far from showing the picturesque richness of contemporaneous Rhenish churches. It is plain and severe, though dignified. What distinguishes this structure from others of its kind, aside from the unique development of the forms of the transitional period one may study here, is the grand effect of its interior, which is not equalled by any other mediæval edifice in German lands. While the actual dimensions are not small, — the internal length, exclusive of chapels, is 351 feet, breadth 105 feet across the aisles, length of transepts 148 feet, breadth of nave 46 feet (like Cologne Cathedral), — the powerful effect attained is rather to be sought in the clear disposition of the plan and a wise economy in the height of the interior, showing that the unknown master, who, by the way, had perfect command of the forms of the transitional style, must have intended the creation of an interior such as the basilica of Maxentius at Rome, St. Mark's at Venice, St. Front at Périgueux, France, and Trèves Cathedral, are justly famous for. Our plates show some of the decorative work, such as sculptured reliefs, altar-pieces and sepulchral monuments which escaped the fanatic onslaught of the Anabaptist mob who despoiled the edifice of many of its finest monuments. Much of the decorative work, too, has been added since the days of John of Leyden and his frenzied followers.

VIEW FROM THE SOUTHWEST TRANSEPT: MÜNSTER CATHEDRAL, PRUSSIA.

[Gelatine Print.]

MINLEY MANOR, FLEET, ENG.: TWO PLATES. MR. GEORGE DEVEY, ARCHITECT.



[The editors cannot pay attention to demands of correspondents who forget to give their names and addresses as guaranty of good faith; nor do they hold themselves responsible for opinions expressed by their correspondents.]

WHO IS TO BLAME?

BURLINGTON, VT., May 31, 1899.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs:—I enclose, herewith, an interesting programme for competition. Having heard of the proposed new building, I wrote for instructions, which I now send you. I doubt not that you receive many similar programmes. I myself, have done so before now, but it does seem as if there was something very deficient in the make-up of the architectural profession to have acquired that standing in the community by which those who actually desire professional service deem it altogether right and proper to assume such tone of condescension. I suppose, of course, that many are ready to furnish plans gratuitously, even in this case, which gives no assurance of anything to the architect. I can understand how, in certain cases where the competition is limited, or a prize offered, a man may be willing to take the chance of furnishing plans gratuitously. But it certainly rouses one's indignation to have a company of business men calmly announce that they "will receive sketches from all persons desiring to present the same gratuitously." Surely architects are at fault for this state of things. I am not writing for publication, though what I say may be a text for another paragraph on an old theme. I want to tell you of an occurrence in my own experience of recent date.

A building of some importance was to be erected in this neighborhood. Foreseeing that a competition was imminent, I took what occasion I could to lead the parties interested to believe that reputable architects, such as they would care to employ, would expect to be paid at least their expenses in case they entered the competition. I am sure I had so far accomplished that good end, that while some may have doubted, they would not have been surprised had it proved literally true, and would, doubtless, have made arrangements accordingly. But, alas! two or three prominent firms, to say nothing of firms of less renown but of "good standing," when asked as to the cost of competitive plans, without a single effort to obtain fair recompense for their study and work in preparing such drawings, calmly expressed their willingness to do all that for nothing, with no intimation that such a course was anything else than common. In the case of a young architect with but a small business, he may need to take such chances at first, but I fail to see where a lasting good accrues to the profession at large by architects with a wide practice pursuing such a course. To learn of such conduct was a matter of much surprise to me, since among the number were some from your own city, where I have supposed a good deal of stress was laid upon the point of professional etiquette.

Yours truly,

W. I. L.



THE IMPERIAL STABLES IN BERLIN.—The removal and enlargement of the Emperor's Berlin stables, which are opposite the old palace, at the corner of Breite Strasse and the Schlossplatz, will cost from seven to eight million marks. According to the plan of the architect, Herr Geheimrath Ihne, the front facing the Spree will be 200 yards in length. The Emperor requires, among other things, two riding grounds, several coach-houses for about 300 carriages, and stalls for 270 horses. Several workyards and farmyards are also needed, as well as dwellings for fifty families and eighty unmarried servants and coachmen. The chief façade opposite the Schloss required reconstruction on a large scale, and this was rendered very difficult by the different character of the rooms looking on to the Schlossplatz, some of which are quite insignificant. The architect has, however, been fortunate in his design, having arranged the chief room of the upper floor (the large carriage-room, with its costly historical and modern sleighs and coaches) as a state-room, and thereby giving it the appearance from the outside of a museum. Passing under the lofty doorway, one enters the front court, which is covered in by a glass roof, which in summer is removed to prevent excessive heat. Southward extends a broad wing, with coach-houses and dwellings in the upper portion. Eastward one sees the stables, built in two stories, one over the other, each calculated to hold 134 horses. Lifts, saddle-rooms, flights of stairs, cleaning-rooms, and servants' rooms are provided there, or are to be found in the intermediate story. The great carriage hall in the Schlossplatz is an enormous room, stretching over two stories and provided above with a long gallery. The walls are connected by double rows of columns, and are decorated with tendrils and shell work. The ceiling is more richly treated, and in its strong plastic decoration is in harmony with the great height. Behind the above-mentioned cross building all the work is in progress, as was ascertained by a visit lately paid by the Architect Club, which afforded an idea of the extent of the grounds. On the Spree about half of the façade fronting the water is finished, but the wings stretch still further southwards, so that they will eventually pass far beyond the front of the Schloss. In the second court will be two riding grounds of

exactly the same size, situate over an enormous carriage-house, separated by double walls. The works upon the new building, for which pieces of ground were lately acquired south of the older grounds, will require about three years more to complete.—*Berlin Correspondence London Standard, May 11.*

THE PUTEAL LIBONIS, ROME.—It is with interest many of your archaeological readers will learn that the famous "Puteal Libonis," so often referred to by Ovid, Horace, and Persius as the meeting-place of usurers and litigants, has been discovered and explored by Signor Boni, the lieutenant of the Minister of Public Instruction, and an old friend of Mr. Ruskin and of the present writer, while carrying out his careful excavations between the republican south wall of the Regia (or chapter-house of the Pontifices) and the lately laid bare wall of the "temenos" of Vesta. It will be recollected that under the wall of Rome 559 Livy writes concerning the Lucius Scribonius Libo, to whom this "puteal" is believed to owe its name, and who became praetor in the year following. But it is Festus, who has proved so useful to us all during the recent excavations, who tells us that Scribonius received a commission from the Senate to search out such spots in the city as had aforetime been struck by lightning, that is to say, where the heavenly flame had buried itself, such places having especially to be both preserved from irreverence and left open to the sky. Of these, we know, there were at least two in the Forum, namely, one in the Comitium, wherein the razor and whetstone of Attus Navius were buried by Tarquinius Priscus—and this other one now explored, which was restored and rededicated by another Scribonius in A. C. 33, and which consequently appears on denarii of the Scribonian "gens." This puteal proves to be seventy-one centimetres in diameter. Its remaining walls are of tufa cut into mouldings of "pedarole," or square dentils. It has already yielded the fragments of three hundred vases of various dimensions belonging to the second century A. C., together with bones of ox, sheep, and boar, and a dozen skulls of weasel. Signor Boni has likewise been fortunate in his search for fragments of the arch erected by Augustus in commemoration of the victory at Actium, which stood adjacent to the Puteal Libonis, and "juxta aedem Divi Julii." Its foundations were discovered in 1888, and its inscriptions in 1845. Signor Boni has now been able to identify seven magnificent blocks belonging to it, which can be quite easily replaced over the existing bases of the pillars thereof. It may be of interest in this connection to mention that the curve of the arch of Q. Fabius (Allobrogicus), with its curious double keystone, is complete but for one or two missing blocks. It is lying out on the ground opposite the "Templum Romuli." Its inscription was discovered at the same date as that belonging to the Arch of Augustus.—*Letter in London Times.*

A LARGE CANAL LIFT IN PETERBOROUGH, CANADA.—Amongst the important works recently undertaken by the Department of Railways and Canals in Canada, are a couple of hydraulic lifts on the Trent Canal at Peterborough, Ontario. The dimensions of these lifts are much greater than those previously constructed at La Louviere, Les Fontinettes, or Anderton. The vertical traverse of the new lifts is to be 65 feet, and the tanks will measure 139 feet long by 33 feet wide, and be 8 feet deep over the sills. The two tanks act as mutual counterbalances, the hydraulic presses under each being in communication. When one lift is at the top of its stroke the other is at the bottom. Under these conditions the arrangement is such that on both tanks being opened to their respective branches of the canal, the water in the upper tank is deeper than that in the lower. Hence, if the gates are closed and the valves on the pipe communicating with the two hydraulic cylinders opened, the upper tank containing the greater depth of water will descend, raising its fellow in the process. At the end of the stroke the tanks are locked in position, and when the gates or sluices are opened water will flow from the lower tank into the lower branch of the canal, and from the upper branch of the canal into the upper tank, thus establishing a fresh surcharge, enabling another stroke to be made when necessary. Each tank with its contents weighs about 1,800 tons, and is carried on a hollow cast-iron ram 7 1/2 feet in diameter. The hydraulic cylinders are built up of rings of steel castings 3 1/2 inches thick, bolted together by external flanges. To supply unavoidable leakages from the presses, an accumulator is provided, which is supplied by pumps driven by turbines operated by water taken from the upper reaches of the canal. This accumulator also supplies the hydraulic plant with which the gates closing the tank and the branches of the canal are worked, as well as a number of hydraulic capstans by which the craft passing the lift are handled. The joints between the ends of the tank and of the canal branches, above or below, is made by means of a collapsible air-tube, which, when charged with air at 30-pound pressure, makes a watertight joint between the opposing faces. The whole plant is intended to be operated by three men, two of whom attend to the gates on the up and down stream sides respectively, while the third has charge of the lift proper. The engineer to the work is Mr. R. B. Rogers, M. Can. Soc. C. E., while the Dominion Bridge Company, Limited, of Montreal, are the contractors.—*Engineering.*

IRON FELT.—We are glad to find in the New York *Evening Post* this further information about a useful material: A new insulating material known as iron felt, and made in Germany, is being extensively used in Europe for a number of purposes. For the prevention of vibration, it is said to be quite successful, and it is placed between engines and their foundations and also between rails and sleepers. It consists of the larger and stouter woollen fibres treated first with a by-product of petroleum and then coated with gelatine and india-rubber and vulcanized. After pressure it is used in the form of plates somewhat over two square feet in area, and from one-half to two inches in thickness. The plates are said to be extremely elastic and imperishable, and have a surface so hard as not to be cut by the sharp edges of bolt-heads or iron girders.

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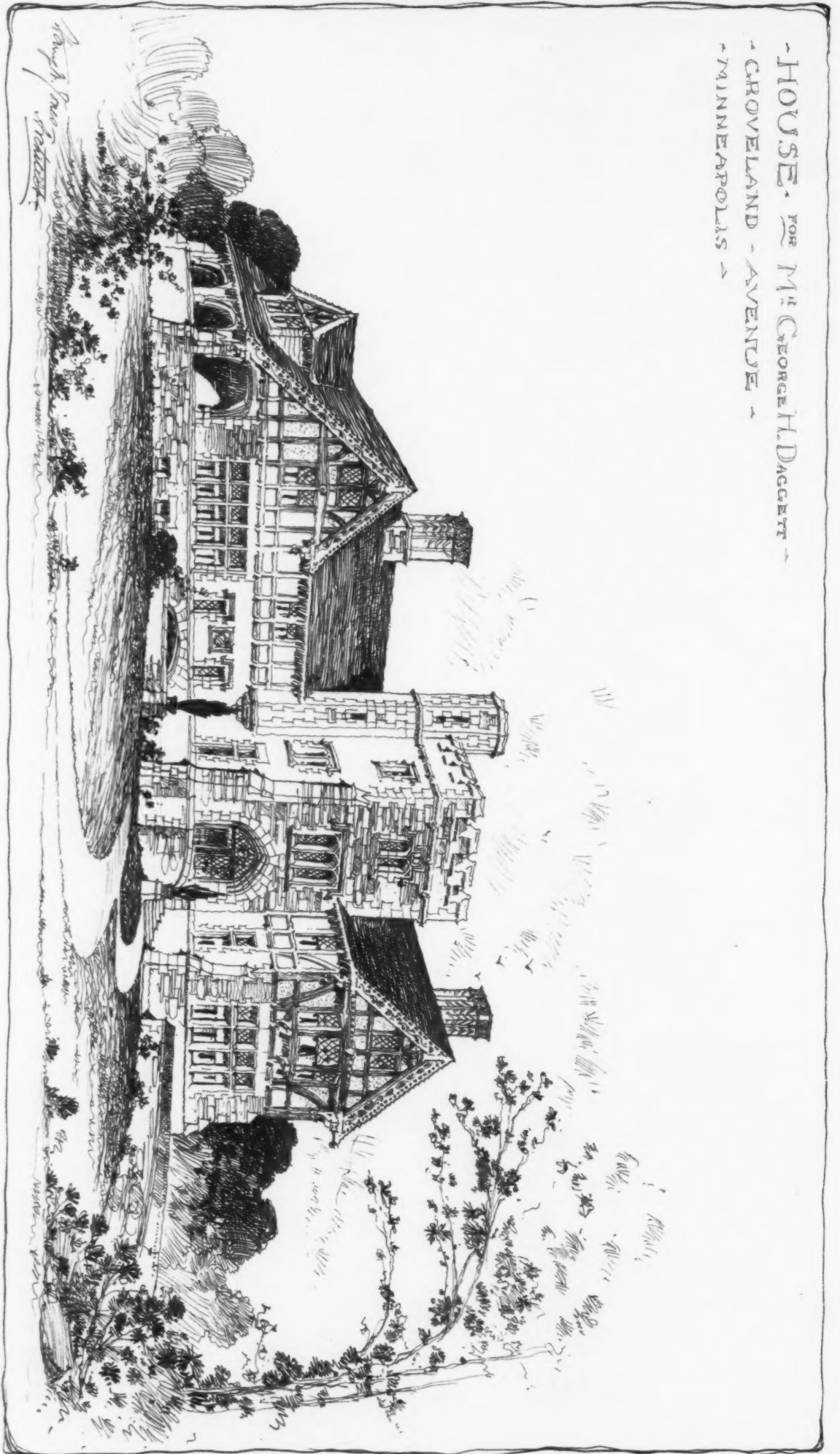
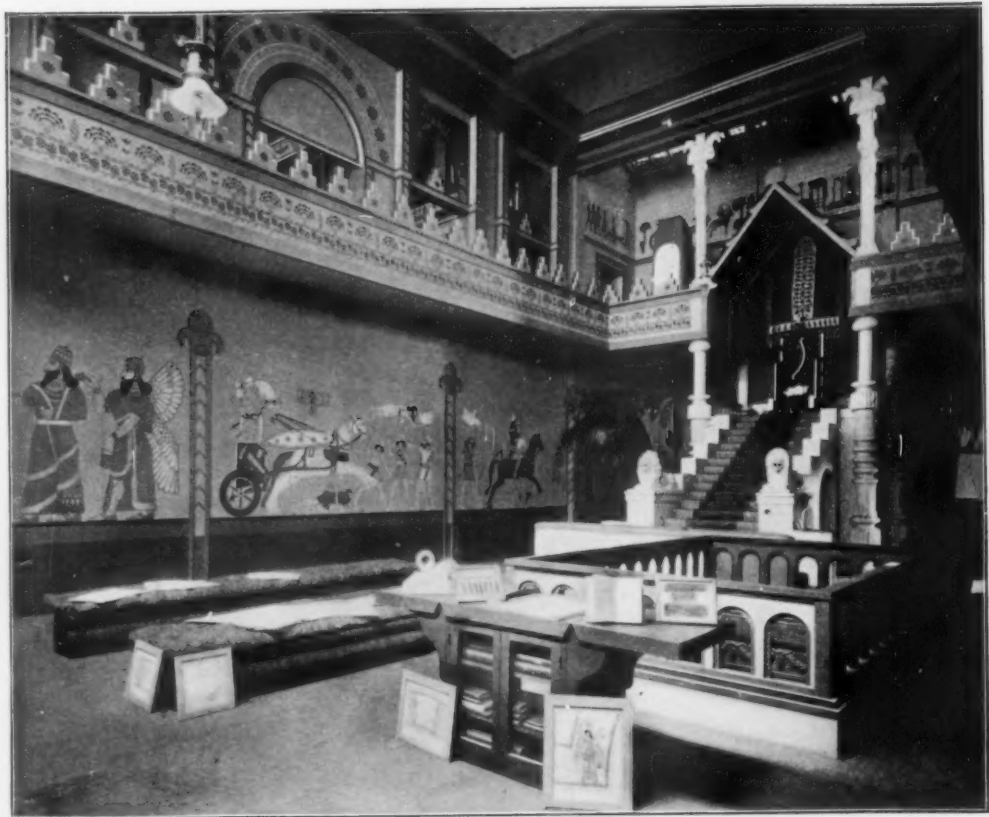


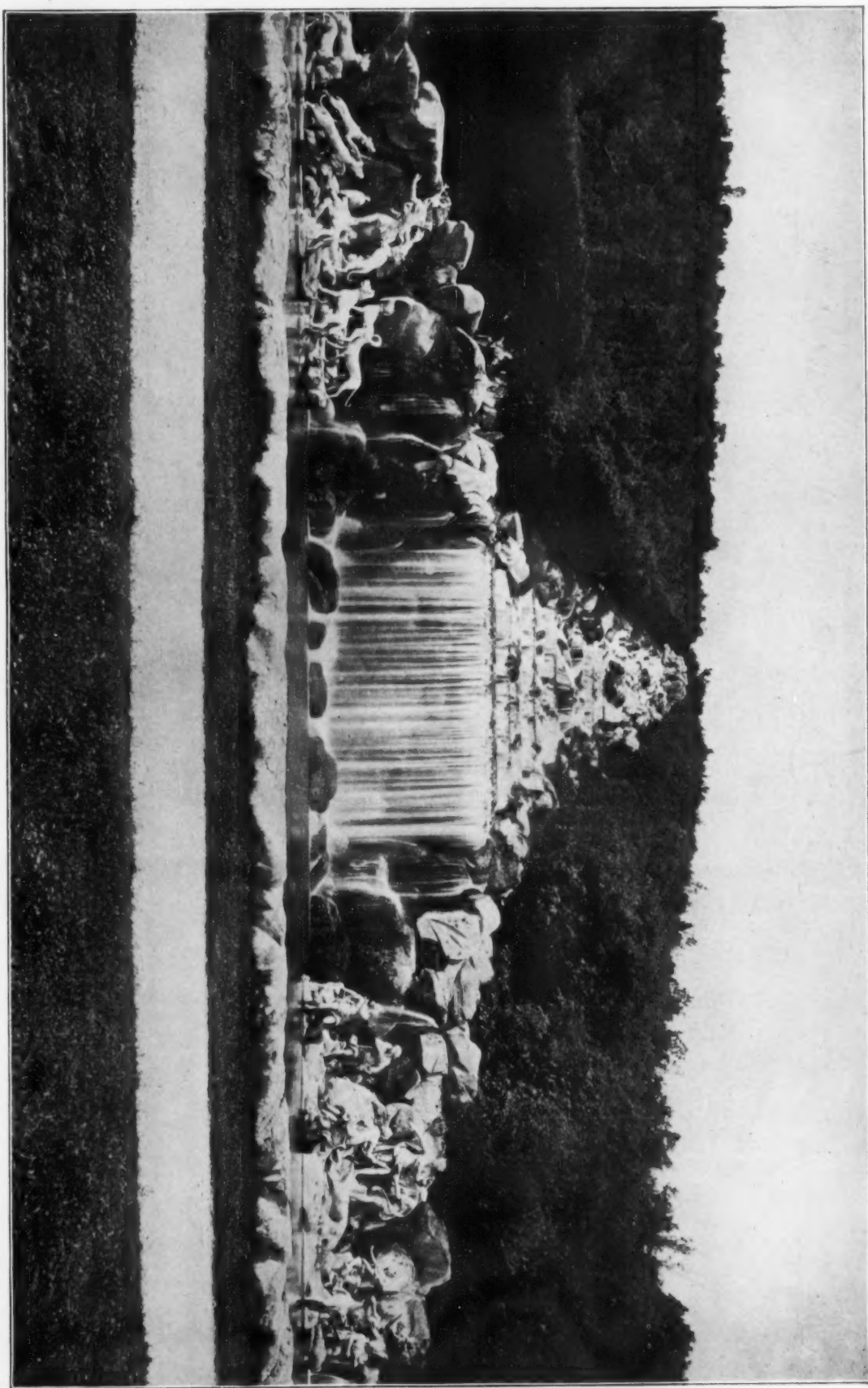
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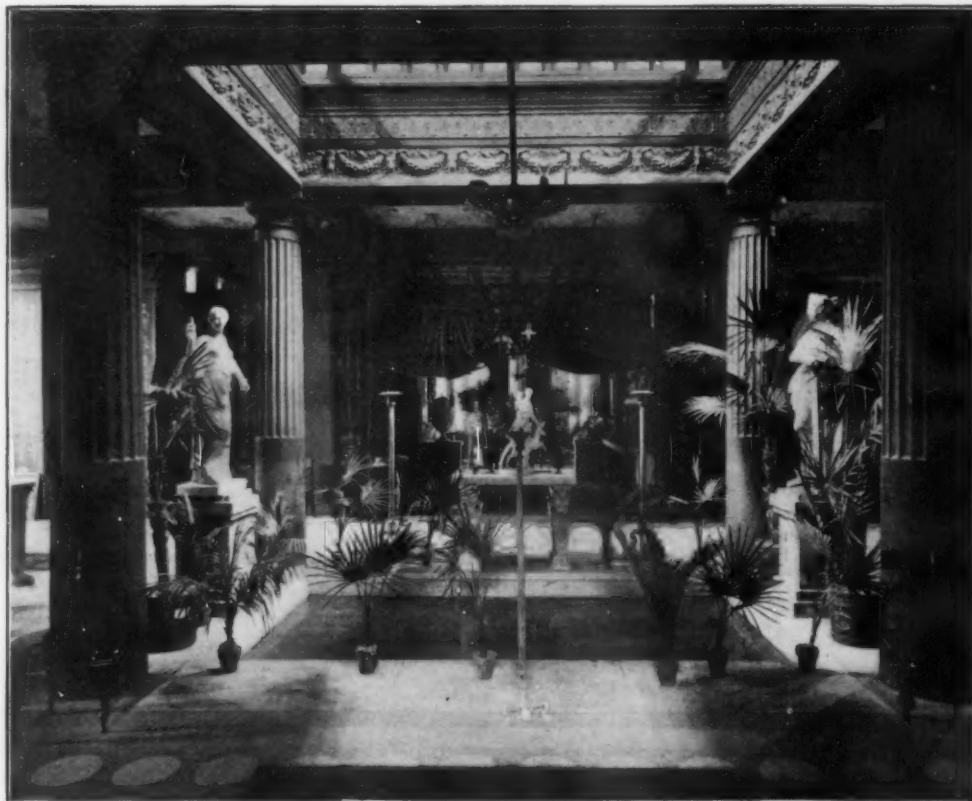
THRONE OF XERXES, IN THE ASSYRIAN ROOM.



INTERIOR OF EGYPTIAN HOUSE.
THE HALL OF THE ANCIENTS, WASHINGTON, D. C.
FRANKLIN W. SMITH, ARCHITECT.



ACCESSORIES OF LANDSCAPE ARCHITECTURE, LXXI:
GRAND CASCADE WITH GROUPS OF DIANA AND ACTÆON; PALAZZO REALE, NEAR CASERTA, ITALY.
VANVITELLI, VIOLANI, BRUNELLI AND OTHERS, ARCHITECTS AND SCULPTORS.



ATRIUM, TABLINUM AND PERISTYLIUM, ROMAN HOUSE.



PINACOTHECA AND PERISTYLIUM OF A ROMAN HOUSE.

THE HALL OF THE ANCIENTS, WASHINGTON D. C.
FRANKLIN W. SMITH, ARCHITECT.



ÆCUS AND LARARIUM, ROMAN HOUSE.



TABLINUM AND PERISTYLIUM, ROMAN HOUSE.
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