

PRICE 15 CENTS.

DECEMBER 8, 1894.

THE
AMERICAN ARCHITECT
AND BUILDING NEWS

VOL. XLVI.

* REGULAR EDITION *

NO. 989.

ARCHITECTURE

ENGINEERING

DECORATION

211 TREMONT ST.

CONSTRUCTION

BOSTON MASS.

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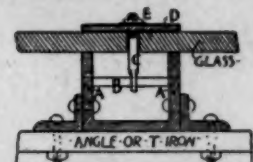
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THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. XLVI.

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No. 989.

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

DECEMBER 8, 1894.



SUMMARY:—

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WE have not yet exhausted the interesting matter to be found in the Report of the United States Strike Commission on the Chicago strike of 1894. It will be remembered that, in our previous comments on the Report, we suggested that it seemed to go out of its way to make accusations, or rather, insinuations, against the Pullman Company which its own statistics did not bear out. This impression is not removed by a more careful reading of the Report. On page 31, in speaking of the wages paid by the Company, it remarks that "During all of this reduction and its attendant suffering none of the salaries of the officers, managers or superintendents were reduced. Reductions in these would not have been so severely felt, would have shown good faith, would have relieved the harshness of the situation, and would have evinced genuine sympathy with labor in the disasters of the times." What place sentimental platitudes of this sort have in the report of a Commission appointed to ascertain facts, we cannot see, but its evident purpose is to excite feeling against the Pullman Company, and the next paragraph contains a misrepresentation, in the same direction, so gross, not to say malicious, that we cannot help feeling that a public retraction and apology ought to be made for it. This paragraph says: "In its statements to the public, which are in evidence, the Company represents that its object in all it did was to continue operations for the benefit of its workmen, and of trades-people in and about Pullman, and to save the public from the annoyance of interrupted travel. The Commission thinks that the evidence shows that it sought to keep running mainly for its own benefit as a manufacturer, that its plant might not rust, that its competitors might not invade its territory, that it might keep its cars in repair, that it might be ready for resumption when business revived with a live plant and competent help, and that its revenue from its tenements might continue." What "evidence" the Commission found to support so extraordinary a conclusion we cannot say, as none of it is given in the Report. On the contrary, while the greater part of the sentence consists of pure assertion, of the sort that labor orators produce so copiously, the last statement, that the Company kept its shops open, "that its revenue from its tenements might continue" is flatly contradicted by a few words on page 33, to which we have before referred, in which it is stated that "At the time of the strike about \$70,000 of unpaid rents had accumulated. It is fair to say that this accumulation of unpaid rent was due to leniency on the part of the Company

toward those who could not pay the rent and support their families. Neither have any actual evictions taken place." It is curious to compare this paragraph with the elaborate arguments on page 29, in which, after showing that from September 18, 1893, to May 1, 1894, the Company took and carried out contracts to the amount of \$1,421,205.75 "which was \$52,069.03, or 3.663 per cent, below shop-cost for labor and materials," the Commissioners say that "Against this, the loss to labor by the reduction of wages paid on this work was over \$60,000. . . . Hence, while the amount of loss was nearly equally divided, it seems that the percentage of loss borne by Labor in the reduction of wages was much greater than that sustained by the Company upon material. Three-quarters of the loss for the Company, and the balance for labor, would have more fairly equalized the division of loss on these contracts." It will be observed that the Commission gives the Pullman Company no credit for interest on its capital, depreciation, repairs, supervision and many other things, but assumes that it furnished nothing but the bare material, and claims that, because the cost of material, in car building, is about three times as great as the cost of labor, the stockholders in the Company, besides going without their dividends, and paying the interest on their borrowed money out of their own pockets, ought to keep their works running by taking contracts at less than the cost of labor and materials, and shouldering three-quarters of this additional loss themselves, rather than incur the enmity of Labor by asking their men to work a little harder or for a little less wages, as the alternative to going without any employment at all. One cannot help thinking that if the labor-cost in the finished product had been three-quarters, and the cost of material one-quarter, the Commission would have found some equally ingenious reason for still saddling the three-quarters of the loss on the Company, and the rest on Labor; but the point of the whole argument is destroyed by the simple fact that, while the Company nominally reduced wages to the amount of sixty thousand dollars during the term referred to, it voluntarily remitted rents, for it can never hope to collect arrears, to the amount of seventy thousand dollars during the same time; so that Labor, instead of bearing half the loss on the unprofitable contracts, as the Commission represents, not only bore nothing, but profited by the losing contracts to the amount of ten thousand dollars, the Company thus virtually assuming all the losses of every kind due to the bad business of the year, keeping its men employed at their old wages, and paying them a bonus of ten thousand dollars besides. It may be objected that the benefits of remission of rents were confined to the poorer and more burdened men, and that the bachelors, with no one dependent upon them, had to work for less pay than before; but if the Commission's theory, that reductions in wages ought to be made where they will be least severely felt, is correct, it could not be better applied than in the way in which the Company applied it; and the evidence appears to us to show, not that the Pullman Company kept its works running "mainly for its own benefit as a manufacturer," or "that the revenue from its tenements might continue"; but mainly for the benefit of its men and their families; that its reduction of wages, with more than corresponding remission of rents to men with families, was the plan, and the only one which seems to have been feasible, by which it imposed a light burden upon those of its men who could easily bear it, without requiring any sacrifice whatever from those who could not well make it; and that, so far from robbing its men of their wages in order "that its revenue from its tenements might continue," it used its control over "the revenue from its tenements" to exercise a great and discriminating kindness in favor of the people who needed it most. These conclusions are not shaken by the mass of stock assertions concerning "monopolies," "concentrated wealth," and so on, which fill the latter pages of the Report; and we would like to ask how many private manufacturers, during the last two years of reduced wages, have paid the house-rent of their poorer men; have kept them busy on work contracted for at a loss; have allowed them to occupy their houses, without demanding rent, while they were engaged in a long and causeless strike; and have taken them back, on the same terms, as soon as they came to their senses. All these things the managers of the Pullman Company, the "great monopoly," the representative of "accumulated capital," the embodiment of

"strict business," the "very wealthy and unyielding corporation," have done, as is plainly shown in the pages of the Report, and it seems to us that the best beginning that the Commissioners could have made in the work, which they deem so urgent, of "conciliation" between Labor and Capital, would have been to give the Pullman Company credit for what it has done, and point out how fairly and generously at least one great corporation is managed, instead of wresting facts to increase the popular prejudice against it, and obscuring what little information they give by a mass of *a priori* speculations and assertions.

MR. FREDERICK LAW OLMSTED has furnished recently an example of professional honor which should be noted by all architects and engineers. It will be remembered that he was appointed, a few weeks ago, by the New York Park Commissioners, as landscape architect of the Harlem Speedway. His appointment was made when he was in North Carolina, and it was not until his return that he met the Commissioners to consider the details of the engagement. When he discovered that the Board had determined not to avail themselves of the services of Mr. Calvert Vaux, who has been the regular landscape architect to the Park Department for something like thirty years, he positively refused to accept the appointment. He might, he said, be willing to act in conjunction with Mr. Vaux, but under no circumstances would he consent to supersede him, or to undertake the work without him. The Commissioners reminded him that the statutes providing for the construction of the Speedway provided also for the appointment of a special landscape architect, but Mr. Olmsted remained obdurate, saying that Mr. Vaux was the best-qualified man in the world for that sort of work, and that he would have nothing to do with the affair unless in association with him. Finally, the interview terminated, with the understanding that the Board should put its proposition to him in writing, and that he should then consider it, and reply in the same way.

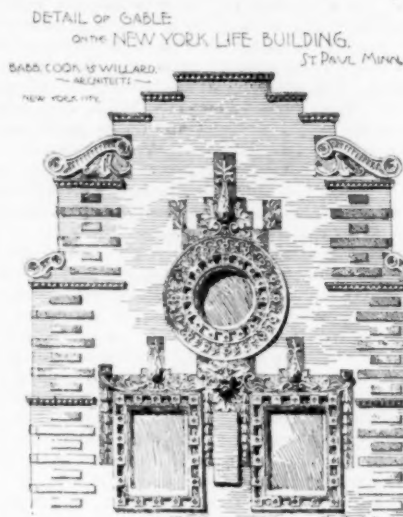
BESIDES its importance as a conspicuous example of professional loyalty and honor, this episode ought to have a special value as a lesson to Commissioners, and others in authority, that the members of the great professions will sustain each other against arbitrary caprice. Although the present Board of Park Commissioners may be composed, as has almost always been the case, of able, honorable and devoted men, there seems to be no question that the dislike which a majority of the Board seems to have conceived for Mr. Vaux is trivial and personal. One complaint which has been made against him is that he "antagonized the Board," while the only other one, so far as we have seen, is that he "makes mistakes." It does not require any great familiarity with the relations of professional advisers and their clients to see that both these objections are the mere expression of personal pique. Mr. Vaux is a man of very great experience and skill. It is not likely that his opinion would always coincide, in matters relating to his art, with those of three or four merchants and lawyers, however intelligent the latter might be; but it is still less likely that he would oppose the opinions or wishes of the Park Administration without good reason; and to attribute publicly his firmness in maintaining his own convictions against those of people without a thousandth part of his knowledge, or sense of professional responsibility, to a mere desire to "antagonize" the members of the Board, is as little calculated to convince the public of the incorrectness of Mr. Vaux's opinions as the plan of being revenged upon him by superseding him, after thirty years of service, is to attest to the public mind the fairness and courtesy of the Board toward its advisers. The plea that Mr. Vaux "makes mistakes" is still less creditable to the Board. Every professional man makes mistakes all through his professional life. He is constantly required to weigh circumstances, by the light of such evidence as he can get, and make his decisions in accordance with what seems to him the preponderance of advantages; and it is inevitable that the subsequent development of events should sometimes show that a different decision would have been better. Doctors and lawyers are not employed by sensible people to give infallible advice, but to use their best judgment, and it would be hard for the Park Commissioners to show that a landscape architect should be expected to do more,

THE Woman's Building for the Cotton States Exposition, to be held at Atlanta in 1895, is to be designed by two young ladies, Misses Mary N. Gannon and Alice J. Hands, now students in the New York School of Applied Science for Women, whose sketch-plans were chosen in competition. The building is to be shingled on the outside, with Ionic columns and other "trimmings," painted white, and is to contain various exhibition-rooms, and an art-gallery. The interior is to be finished in Southern pine.

THE architects and artists of Berlin are having a very pretty, though decorous, quarrel with the German Emperor. It will be remembered that the latter's action in arbitrarily selecting Professor Raschdorff as the architect of the great Berlin Cathedral did not particularly please the profession, and his Majesty's later excursions, or incursions, into the field of art do not appear to be any more satisfactory. The recent completion of the Imperial Parliament-House has given occasion for the elevation of Paul Wallot, the architect, to the highest professional honors, by the common consent of German architects, who are practically unanimous in their admiration of the skill and talent with which the great commission has been carried out. Meanwhile, however, the Emperor has taken a dislike to the building, or to the architect, or both, and does not hesitate to express his imperial sentiments on the subject. A little while ago, on the occasion of the award of the medals at the annual Berlin Salon, the Prussian Royal Academy, which acts as a jury, voted a first gold medal to Herr Wallot, who is now also Doctor and Professor, besides holding other titles. Under the rules of the Academy, the list of awards must be submitted to the Emperor for approval. This was done as usual, and the list came back with Dr. Wallot's name scratched out, and that of Frau Parlaghi, an artist popular at Court, whose contributions had been refused by the hanging-committee, and only admitted in obedience to the Emperor's command, substituted for it. Probably the jury had to submit, but, a little later, the Emperor communicated to them another mandate, to the effect that they should at once set aside one of the rooms in the Academy building, for a special exhibition of Frau Parlaghi's pictures. This was more than they could endure, and they refused to obey; and the Emperor was obliged to have the walls of the National Gallery, over which he has more control, cleared to make room for the lady's works.

A CURIOUS accident took place in a Swiss electric-lighting establishment not long ago. The dynamo machines in this particular station are driven by turbine-wheels, of which there are four. The main driving-wheels, which are attached directly to the turbines, are large open pulleys, with six spokes, made in two pieces, bolted together. The ordinary speed of these pulleys is about two hundred revolutions per minute. A few days before the accident, to make some test of the turbines, the belts were thrown off, and the turbines and attached pulleys allowed to revolve as they would. In general, as Professor Escher, of Zurich, who writes the account to the *Schweizerische Bauzeitung*, says, the speed of a turbine without a load is about double what it is with a load suited to its capacity; and, by actual count, the large pulleys revolved, at the maximum, four hundred and twenty-five times a minute. Some days later, while no one was in the room, all four of the wheels burst, nearly at the same moment, sending fragments through the floor and ceiling. Professor Escher, thinking that an explanation of this curious accident may be of value, shows that, as the centrifugal force increases with the square of the velocity, the throwing-off of the belts brought an outward bending strain on the rim of the wheels nearly five times as great as that to which they were normally exposed, and, as he proves, dangerously near the point of rupture of cast-iron; and the fact that all the fractures took place near the spokes proves that they were caused by the outward bending of the unsupported space between the spokes. Curiously enough, the accuracy of these observations was attested later. A spare pulley was mounted, in place of one of those destroyed, and was set at work to drive a portion of the electric-light machinery. For some reason, the load for a short time was thrown off this turbine, and then restored. The next morning, the pulley was found cracked in two places, just where the others had given way; and, if its use had been continued, there is no doubt that the cracks would have spread until the wheel came to pieces like its predecessors.

A NEW BUILDING BILL FOR LONDON.



THE buildings of London and the formation of her streets have, up to the present, been governed by a series of acts, amendments and by-laws, too confusing for mortal to untangle. The multiplicity of measures passed since the Building Act of 1844 by way of amending, altering and adding to the original act, has made it a matter of necessity that a consolidating act should be obtained, and that all the laws relating to buildings should be between the two covers of one document. Thirteen old enactments have, therefore, been revised, so as to bring them into one.

The London County Council, as the administrators of the Building Acts, framed a bill dealing with this consolidation, comprising the improvement in width of streets, open spaces at back and front of buildings, height of buildings and materials of which they were to be built. The clauses dealing with the open spaces met with great opposition on the part of land-owners, and other clauses where trade interests were concerned were also strenuously objected to. The bill was referred to a select committee of the House of Commons which held sittings two and three times a week for many months, with the result that the Act, as passed, is a very modified form of the proposals of the London County Council. Modified as it is, it shows many steps of advancement and will prevent many abuses now legally allowed.

The London Streets and Building Act, 1894, will come into force on the first day of the new year. Let us see briefly what its provisions are:

The Act consists of fourteen parts, dealing with widening of streets, lines of building frontages, naming and numbering of streets, open spaces about buildings, height of buildings and their construction, temporary buildings, rights of adjoining owners, dangerous and neglected structures, dangerous and noxious businesses, sky signs, appointment of superintending architect and district surveyors, etc.

We purpose in this article chiefly to confine our remarks to the portions of the Act dealing with buildings in relation to streets, open areas and constructions.

Generally it may be stated, the administration of this Act is in the hands of the London County Council, its superintending architect and district surveyors, with certain exceptions, and here the ancient City of London is exempt from such jurisdiction in the manner referred to in a recent article which appeared in these pages on the subject of "Unification of the City of London" and the London County Council. One of the new features of the present Act is the appointment of a Court of Appeal to hear any complainant against the decisions given by the Council and its officers. This Tribunal of Appeal is to consist of three members appointed by the Secretary of State, the Royal Institute of British Architects and the Surveyors' Institute. The members are to be appointed for five years and to be paid by the Council, but no member of the Council may be a member of the Tribunal.

The Act gives the Council power to appear before this Tribunal with expert witnesses and by learned counsel; the appellants are to be charged fees to be heard, when they have any grievance against the Council's ruling. The Tribunal have power to hear witnesses on oath and their decision in all matters is final.

Before any one can begin to form a new street, either for foot or carriage traffic, he must apply for permission to the Council. The minimum width of a street for vehicular traffic is forty feet; for foot passengers, twenty feet. All new streets must lead from one street to another and not be *culs-de-sac*. No steeper gradient is allowed than one in twenty. A street of sixty feet in length, or any street not exceeding sixty feet in length, of which the length is greater than the width, must be open at both ends; the maximum width which the Council can compel a street to be made is sixty feet.

No building or forecourt hall may in any case be erected at a less distance than half the width of the roadway measured from the

centre of the road. There are, however, some exceptions as to the reerection of old buildings.

No building or structure can be erected beyond the line of building-frontage determined by the superintending architect, and buildings now projecting beyond the general line, when taken down, are to be set back. As difficulties may occur in determining in what street a building is situated when erected upon a corner plot, the Act provides that the superintending architect is the proper authority to settle this point.

In order to provide breathing-space, light and ventilation in the rear of buildings, an open space of not less than one hundred and fifty square feet exclusively belonging to such buildings must be left at the back, extending the full width of the building. In dwellings for the working classes, this open space must be entirely free from any erection, with the exception of water-closets or ash-pits, not exceeding nine feet in height. In other cases, the space may be built over to the height of the level of the ceiling of the ground-floor rooms, or a maximum height of sixteen feet above the pavement.

In order to limit the height of buildings in respect to the space in the rear, an imaginary line is to be drawn at an angle of sixty-three and one-half degrees from a point in the back fence of the open space in the rear of each building, starting at the pavement level; no part of a building except chimneys, dormers, gables, etc., can be carried above the limit defined by this line drawn sixty-three and one-half degrees; with respect to domestic buildings where the open space is allowed to be built over, as above described, to a height of sixteen feet, the angle of sixty-three and one-half degrees may be started sixteen feet above the pavement.

The limitation of the height of the front of a building is determined by the width of the street, the height being equal to such width. For example, buildings abutting upon a twenty-foot footway can only be twenty feet in height, and those on a forty-foot roadway, forty feet in height. Where, however, the roadway is more than fifty feet in width, a greater height is permitted up to a maximum of eighty feet.

It will be seen from these clauses that the speculative builders will no longer be able to purchase two-story cottages in narrow passages and alleys, pull them down and erect upon the ground tenements, flats, or artisans' dwellings of four or five stories in height. The immense benefit, therefore, obtained in acquiring sufficient space, both before and behind dwellings for light and ventilation, will easily be understood; such spaces must afford means of improvement to the public health and eventually destroy, as London is gradually rebuilt, the slums and fever dens with which it now abounds.

In order to provide light and air in large blocks of buildings where there is a court within open to the air at the top, and into which the windows of the rooms open, or where such court from the eaves on the top of the parapet to the ceiling of the ground story exceeds the measurement of its length or its breadth, then adequate provision must be made for ventilating such court by means of communication to the outer air at the ground level.

No habitable room not having a window directly opening into the external air, otherwise than into a court enclosed on every side, is allowed, unless the court measures from the window to the opposite side a distance equal to half its height.

We will not enter now into the schedule of the thickness of walls; suffice to say they exceed the thicknesses allowed by the old Acts. Windows and door-frames are allowed now to be placed flush with external walls, whereas formerly they had to be set back four and one-half inches; other woodwork has to be set back, but oak and teak are exempt from this provision.

A great effort was made by some parties opposing this Bill to repeal the provisions for carrying a party-wall up through the roof of buildings. This effort failed. In the warehouse class the wall must go three feet through the roof, in other buildings fifteen inches. Every building exceeding thirty feet in height, used as a dwelling-house, must be provided with an escape onto the roof in case of fire with a trap-door and hinged step-ladder.

The pitch of a roof for the warehouse-class is limited to an angle of forty-seven degrees; for other buildings seventy-five degrees, and not more than two stories are permitted within the roof of a domestic building. Any story constructed in the roof of a domestic building sixty feet or more above the street must be built of fire-resisting materials. Every new building exceeding sixty feet in height must be provided on floors above that height with "reasonable" means of escape in case of fire, and such stories may not be occupied until they are certified as safe.

The rules included in the Act as to chimneys, flues, furnaces, close fires, etc., need not be dwelt on here.

A clause is inserted for the provision of fireproof staircases in public buildings and buildings adapted for separate families of more than one hundred and twenty-five thousand cubic feet; the lobbies, corridors, passages and landings are also required to be of fireproof construction. Where a building is constructed to be used in separate tenements by more than two families, the common staircase must be ventilated in every story by means of windows. With regard to rooms, the minimum height from floor to ceiling is specified at eight feet six inches, except rooms situated in the roof which must be, at least, eight feet in height from the floor to the ceiling throughout not less than one-half the area of each room. Every habitable room must have one or more windows opening into the open air of an area of at least one-tenth of the floor-space.

In basement rooms, ventilating-space must be left under the floor,

and rooms situated over stables must have a floor pugged three inches in thickness and plastered below to prevent gases penetrating into the living-rooms. The approach to rooms over stables must be by a staircase or gallery separated from the stable by brick walls.

The limit of the cubical contents of a building of the warehouse-class is 250,000 cubic feet, unless divided by party-walls. Where, however, the Council are satisfied by the report of their architect or the chief officers of the fire-brigade that additional space is necessary for any trade or manufacture, and that proper arrangements are made for lessening the danger from fire, they may consent to a maximum cubical content of 450,000 feet, provided the building does not exceed sixty feet in height and is not used for the manufacture of explosives or inflammable materials.

The Act deals with certain public buildings and the exits therefrom in case of fire, which were not included in former enactments. Churches, chapels, public halls, and meeting-rooms, etc., must in future have fireproof staircases supported and enclosed by brick walls of a minimum width of four feet six inches for four hundred persons, six inches being added for every additional one hundred persons, until a maximum width of nine feet is obtained. Where, however, the church, chapel, etc., is so small as to contain only two hundred persons, a width of three feet six inches will be allowed; the same rules apply to the width of passages, corridors, and external doors. Where a portion of the public is seated at a higher level than others, separate means of exit must be provided leading directly into the street. The rules as to theatres remain as at present. These have been given in former numbers of the *American Architect*.

It is extremely satisfactory to find that an evil which has so long existed in the inadequate means of egress from churches, chapels, etc., is to be done away with in London; it is seldom, if ever, one finds a church door which opens outwards—a simple, but most important provision for safety.

It would be impossible, even if it were desirable, in the space at our disposal to touch upon all the important points in this new Building Act of London, consisting, as it does, of two hundred and eighteen clauses, besides several pages of schedules; suffice it, therefore, in conclusion to mention that Part VII deals with temporary buildings and wooden structures, Part VIII with the rights of building and adjoining owners, Part IX with dangerous and neglected structures, Part X with dangerous and noxious businesses, Part XI with the prohibition of the construction of dwelling-houses upon low-lying land which cannot be drained by gravitation, and Part XII with sky signs.

The remaining portions of the Act deal with the statutory appointment and duties of the superintending architect of the Council and the district surveyors, the power of the Council to make by-laws, and sundry clauses as to legal proceedings and miscellaneous matters.

The schedules at the end of the Act contain a table as to the thicknesses of walls in relation to their height, both in the dwelling-house and warehouse classes. A list of materials to be deemed fire-resisting is also included, specifying as such: brickwork, granite and stone, iron, steel and copper, oak, teak and other hard timber when used for beams or posts, iron posts protected by plastering, oak, teak or other hard wood two inches thick for doors or for treads, strings and risers of staircases, slate tiles, brick and terra-cotta, flag-stones for floors over arches, but not when exposed on the under side or supported at the ends only, concrete and other materials from time to time approved by the Council.

E. A. E. WOODROW.

THE "SKY-SCRAPER."

THE extremely tall building is the outgrowth of the conditions that our present civilization has imposed upon us. The discussion of the rights and wrongs of it we will leave to others, but it may as well be admitted that "the sky-scraper has come to stay." The movement against it is sure to fail, because it tries to block an avenue of money-making with purely æsthetic reasons. The marvelously rapid growth of our cities, with the consequent necessity for huddling many people together in a small space, and the enormous price of land in business centres, make tall buildings very desirable; while modern steel construction, elevators and other inventions make them possible. Whatever is desirable and possible, in the eyes of the money-maker, is sure to exist, and equally sure to stay, so long as the need lasts.

The one utilitarian objection to very lofty buildings is, that they will cut off the daylight from the streets below. It is true it would be very undesirable to build them on both sides of a narrow street. But we have the public squares and parks surrounded by business streets, which would look all the more noble if built up twenty stories to a depth of, say, sixty feet; then dropping down to fifteen stories for forty feet, and after that letting the limit of height be twelve, ten, eight or six stories, according to the width of the streets. If all the public squares of New York were lined with twenty-story buildings, much more than the whole office community would be accommodated better than now, and, even from a distance (down the harbor, for instance) the profile would give a very imposing effect.

The æsthetic objection is, that they are ugly and cannot be made

beautiful. It would indeed be sad and most regrettable if our cities were doomed to be filled with structures more ugly than those they already contain. But let us first inquire whether any really honest and earnest effort has yet been made to give consistent beauty to the "sky-scraper." How were the Greek temple and Gothic cathedral made beautiful? Chiefly by making them *true*, and by permitting the style to evolve itself naturally from the needs and conditions under which they were built. The artist-builders of those noble structures used all the skill, knowledge and fine sense of the beautiful of which they were possessed to make them delightful to the eye, and monuments of man's genius for all time. But beauty alone was not the first or fundamental thought. Use and construction came first, ornament afterward, and the style was the inevitable outcome of the method of construction and the material used.

But our architects generally attack the problem of the modern business-building in quite a different spirit. Instead of trying to emphasize the internal construction in the external features, and to express in the character of the design the use for which the building is intended, the façade is usually nothing more than an ornamental curtain of stone or brick, patterned arbitrarily after some past style, and intended chiefly to hide and disguise the construction. It has no more organic connection with the building behind it than a theatre drop-curtain has with the stage scenery. These walls do not express strength. In many cases they could not support even themselves, but depend on the steel skeleton behind for stability. How can true beauty be based upon a lie?

Mr. John Moser, F. A. I. A., is an enthusiast in his profession, and one who believes religiously that its high and noble functions should, first and always, be consecrated to the cause of truth, in which alone lasting beauty may be achieved. The accompanying design for a twenty-story building, of which he is the author, represents months of close study of the subject. He has attempted to show what can be done by honestly and manfully approaching the problem from the constructive side of it, and so designing a tall building that will be consistent and true in every respect. He realizes that the subject is not the most inviting one to the artist's efforts, but that, as a necessity of modern life, it should be frankly and earnestly attempted. It is a case of Pegasus hitched to the wood-cart—but he is Pegasus still. It is not a temple or cathedral that is to be created, but, though only a huge place of business, the idea of beauty, consistent with truth, is never lost sight of.

What are the requirements and conditions which should direct and limit the architect in this work? These he must constantly keep before his mental vision.

First, the office-building is entirely and purely a place of *business*. There is room there for nothing else. *Utility* is, therefore, its first requirement. There must be all possible floor-space; abundance of direct light (not less than two-fifths of the outside wall-space should consist of windows); perfect provision for artificial light, heating and ventilation; roomy corridors illuminated by direct light; and ample elevator service, stairways and fire-escapes. It must be fitted with all the conveniences that modern life insists on and has made possible—in short, it must have everything and be everything to enable every move of business to be a "rapid transit." It must be of fire-proof construction. Everything should be simple and strong, and as nearly indestructible as possible, as well as rich in effect, to express the idea of successful business.

The building must be of steel construction. This is so well known, and the problem has been so thoroughly solved, that it is not worth while to touch on more than one or two reasons for it. The walls for stone or brick construction would have to be so thick that much valuable floor-space would be lost, and it would be impossible to pierce them for sufficient window-space without dangerously weakening them. The great problem is, therefore, to harmonize the exterior form with this steel lattice framework, as the temple and cathedral so perfectly express stone construction. There is no precedent to help. He who looks to the past for a prototype is sure to be on the wrong track. The arch is manifestly out of place here, except, perhaps, as an inferior decorative form, while in stone construction it is one of the most important factors. The first and basic idea with the architect in the design here presented is truth. There must be no huge arches (for the sake of grand effect), which express nothing, and could not stand but for the support of the hidden steel framework behind. It is his object to express, not hide and falsify, our incomparable modern steel construction, so that any one, at a glance, may see how it is built, and so feel that it is strong and majestic.

Since iron and steel will corrode in the atmosphere, it is necessary to cover them up, though for weathering purposes only. Stone, brick, terra cotta, copper or any other healthy weathering material, resting on, and clamped to the steel, need not prevent the exterior forms from expressing the interior functions and construction of the building.

As all arch form is based on fundamental constructive principles, which are totally different from those of our steel construction, so new forms and combinations must be found for the modern building. Stone construction depends almost entirely on its weight and compression for its rigidity, and needs a great breadth of wall or buttress to carry its strain lines. Steel, being so much stronger than stone, and as strong for tension as compression, demands a totally different treatment. With it may be built a square box of a house of indefinite height, with thin walls, and it will be very strong by virtue of

braces, bolts, tension-bars and anchorings. The whole fabric becomes a firm lattice cubical box, with nearly equal powers of resistance and cohesion in every direction, and, at the same time, leaves almost the entire walls for openings. It looks like a spider-web, but it is strong enough to stand an earthquake. Outside battens of thin steel beams (adopted in this design), well bolted to the core of the building, strengthen it in the same way that outside battens strengthen a packing box or trunk.

Yet a structure should not only be strong, and look so, but it should be a "thing of beauty." The elevation of a building has been appropriately called its "crown of glory." The most important consideration on this point is the question of proportion. Bad proportions make the case absolutely hopeless. The truth proclaimed by the eternal triangle of the pyramids holds good through all ages. A good building is always divided into three main divisions. In the Greek temples, the number three always forces itself on your attention, in the stylobate, the order, the cornice and, in fact, everywhere else. These main divisions are generally subdivided into threes, and so on down to the small details. Proportion becomes impossible if all the parts are of equal size. So the tall building is divided horizontally into three main divisions. The lowest part should be square, or, if possible, longest horizontally. The middle one should be longest vertically, and the upper one longest horizontally. Observe the Monument of Lysicrates, which, of all past arch-forms, is, in mass, the nearest to this problem, unless it be the Saxon keeps. The division of an upright mass into the proportions of three, five and two generally gives reasonably satisfactory results, though there seems to be no absolute formula, for it often happens that a division that is just right in one case is wrong in another. The conditions of good proportions must be felt by the designer, and when he succeeds it will at once be seen and recognized. It applies to everything, ornament, color, etc., as well as to great mass forms. It is an indefinable condition of absolute rightness pervading everything, so that nothing is too large or too small. As a twenty-story building is, of necessity, inordinately high for its breadth, instead of emphasizing its height, the architect has here taken special pains in the opposite direction, to keep it from looking attenuated, a common fault in our lofty buildings. The attempt to do this by making a slanting roof over the upper three or four stories, thereby losing a large amount of renting space, he considered as rather begging the question than answering it.

Decorative ornament has three main functions—to express a thought or idea, to emphasize, and to give richness of tone. This building being designed as a place of business in a busy street, there is little room for the expression of ideas, poetic or otherwise. Here people rush to and fro, and everything is wasted except what "he who runs may read." Hence, ornament is used here chiefly to emphasize construction and give richness of tone where it is needed.

The whole façade should be an integral whole, a unit, having head, body and feet. It should grow up organically from the ground to the top stone, as a tree in the forest, and not be, as is often seen, a number of parts, each complete in itself, piled one on the top of the other. The strength of the structure should be emphasized by being heavier and simpler at the bottom than at the top. The flowers grow at the top of the bush, not at the bottom. "Nature is the prototype of all art." Every carrying form should gradually diminish as the building goes upward. The Greeks have illustrated this principle most beautifully in the entasis of their column. The pine tree shows the same thing. Special care should be taken that around the bottom, a little higher up than the actual wear and tear reaches, it should be as simple and indestructible as possible, that it may not be like a certain great building, only a few years old, on which a lot of fine, delicate stone-cutting around the main entrance is already battered into a hopeless ruin. It will be observed that Mr. Moser's design accords remarkably well with these fundamental principles.

Here it may be well to let the architect speak for himself, that we may the better understand his aim, and just how he labored to solve this problem. "After the most mature consideration," he says, "I found myself getting very close to the Classic. The pilasters gave me, perhaps, the most trouble, for here I had to lay violent hands on all precedent. It would be absurd and silly to pierce with windows a stone pilaster, thus weakening what was intended as an element of strength. But in the business-building we must have windows everywhere, and I finally came to the conclusion that, in steel construction, there would be nothing weak or illogical in twin battens (which these pilasters are), well braced and tied together, with a common head and foot for both, the space between them being pierced for windows. These windows in no way interfere with the steel construction, but rather publicly express the same. A stone pilaster could not be thus treated without greatly injuring its usefulness, but in the steel no harm is done. So I pierced them, bases, caps and all, dressed them up in as agreeable forms as possible, and you see the result. I thus get two projecting piers, two and one-half feet by one and one-half projection, about one hundred feet high in an unbroken line, yet, by this manipulation, they do not look lanky, attenuated or spindling. I found no difficulty in harmonizing my design with the regulation stories until I came to the architecture of the cornice, but here I found a higher story necessary to fill the requirements of proportion. I gave the rooms a coved ceiling, and pierced the middle band of the architrave with small cove windows, to suggest the form of the ceiling, and also to lighten the mass of the architrave, which

was apparently too heavy for the slender lines below to carry, while proportion demanded its width (up-and-down). In order to gain the necessary room for the abutment of all projecting members at the party-wall line, I returned the latter ten feet on the main front, treating it very simply. This gave room to finish the architrave legitimately all around, not just chop it off at this point as I would otherwise have been forced to do. You see only a small piece more of the party-wall than will show itself, hit or miss, unless the building is seen across a whole block.

"I would not be a special advocate for tall buildings, but whether they have 'come to stay' or not, I would ever plead for truth, proportion and beauty in all buildings. I believe the successful and satisfactory office-building of the future will honestly express its interior functions in its exterior forms, as well as the street construction, which is the carrying skeleton of the whole fabric. The rosette or button, either singly or in rows, will become one of the foremost decorative motives. It will be omnipresent, because it so well expresses the anchorage and bolting together of the steel skeleton. The masses of this building will be thin and slender, rather than broad and massive. It will look strong and powerful, as the deer or gazelle, rather than as the elephant or rhinoceros. It will be elegant by virtue of its proportions, its refined simplicity and a skilful handling of its few ornamental forms, that will make the whole look alive and vigorous. It will be essentially useful and practical. It will tell exactly what it is, and pretend to be nothing else, thus attaining dignity and majesty. When that time comes we shall have an individual style of our own. We shall get it without the seeking, and it will be worthy or base, just as we are worthy or base."

F. C. GORDON.

CONSTRUCTION.¹—XXVI.



Fig. 134.

CORBELS play an important rôle in civil constructions. We have previously given the reason; it remains for us to follow the varied applications of this method. There are, in that portion of Champagne which touches Burgundy, and *vice versa*, houses otherwise very simple, constructed during the thirteenth and fourteenth centuries, which have a gable toward the street and form on the exterior a sort of porch with balcony above, sheltered by a strongly-projecting roof. The entire system consists merely of cleverly-combined corbels. Thus (134) the side walls carry a first corbelling at right angles to them, intended to carry a bressummer receiving the ends of the second-story floor-beams which also bear upon the recessed wall. This bressummer is surmounted by a balustrade. A second corbelling *A* gives a projection to the side walls which protects the balcony and receives a gable truss whose tie-beam carries the flooring of the garret and permits the introduction of provisions into it. The recessed enclosure on the line of the first-story wall is only a framing of wood roughly plastered. Notice that the second corbelling *A*

¹ From the "Dictionnaire raisonné de l'Architecture Française," by M. Viollet-le-Duc, Government Architect, Inspector-General of Diocesan Edifices, translated by George Martin Huss, Architect. Continued from No. 988, page 94.

(134a) carries above its last course *H*, a portion of vertical wall *H I*, so as to weight the ends of the corbelled stones by a mass of masonry. Further back is the wood framing *G*, which closes the second story. To avoid any chance of the corbelled mass rocking, the double plates *N*, which carry the roof, and which surmount the whole length of the side walls, are furnished on the outside with strong key-pins *O*, which maintain the head of the corbelling. This very simple arrangement is found in very many peasants' dwellings. But we will now see how the constructors reached the point of using corbellings with skill in richer, more complicated, more important structures, while submitting themselves to dispositions demanded by a special requirement.

The problem is to pierce a doorway in the re-entrant angle, formed by two buildings which meet at right angles, a very convenient arrangement, moreover, and which was frequently insisted upon by the inhabitants of a manor or a dwelling; to arrange that this door shall give access to the ground-floor rooms on the right and left, then to the second story; to overcome the splay in which the door is cut, to recover the right angle formed by the meeting of

the main walls, of which at least one will make a partition wall as it is prolonged; and to then establish above this door and in the re-entrant angle, a service staircase connecting the second story with the upper stories. By the use of iron beams covered with plaster we could to-day easily succeed in satisfying this programme. But if it is required not to falsify the construction, the thing becomes less easy.

Let plan *A*, Figure 135, be the ground-floor of this construction, and plan *B* the second story. At *C* is shown the door which opens in the splayed wall; at *D* the interior piers; at *E* the horizontal projection of the interior corbels supporting the re-entrant angle and at *F* the horizontal projection of the corbellings carrying the salient angle; *G G* are the arches counterbutting the re-entrant angle, and carrying the second-story partition walls. We show (136) the exterior view of the doorway with the corbellings which act as a hood for it, and which carry the salient angle of the service staircase, shown on the second-story floor-plan *B*. If necessary, these corbellings may mask machicolations for defending the doorway. Figure 137 gives the interior view of the doorway with the corbellings carrying the re-entrant angle; at *G* are the two arches counterbutting the corbellings and supporting the partition walls above. The newel of the staircase ascends in the centre *H* of the splayed wall and the interior and exterior corbellings are kept in equilibrium by the opposing

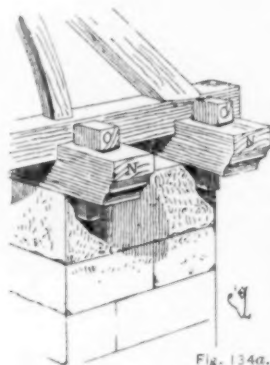
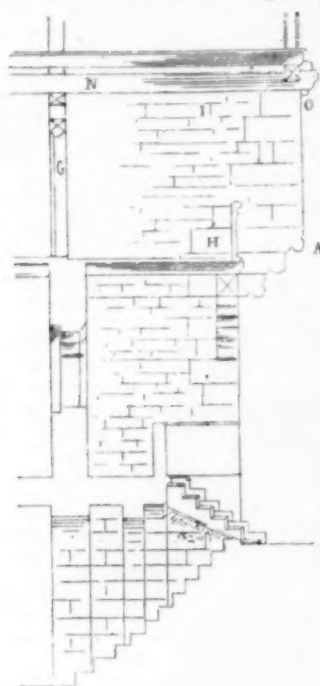


Fig. 134a.

weights of the two salient angles of this staircase well. It has been attempted in later times to obtain analogous results by means of pendentives; but pendentives load the masonry below much more than this system of corbellings; require larger-sized materials and a greater amount of them; and problems in stereotomy, difficult to plot and still more difficult of execution. This then is no progress at all, unless one considers it progress to give pleasure to a stone-cutter to show his knowledge to the detriment of the purse of him who builds.

If during the fourteenth and fifteenth centuries the ecclesiastical constructions modified but little the methods applied to the art of building by the architects of the thirteenth century, it is not the same with civic constructions. These take on a freer manner; the processes are more elaborate, the methods more varied; the architects show proof of that independence of which they show the lack in the religious monuments. This is in reality because the current of life turned away from religious architecture and bent all its energy to civil constructions. Under the reigns of Charles V and of Charles VI, there is a rapid development of architecture

applied to public edifices, to castles and to mansions. No difficulty daunts the constructor and he succeeds by carrying further the principles admitted by his predecessors in executing constructions the most daring and the most skilful from the double point-of-view of solidity and art. At that epoch a few seigneurs knew how to give an extraordinary impulse to constructions; they loved them as they should be loved, leaving to the artist perfect freedom, both in regard to the methods of execution and the character which fitted each structure.¹

The Duke of Burgundy and the Duke Louis of Orleans, the brother of Charles VI, caused to be raised residences, half fortress, half palace, which indicate in the artists charged with these works a rare experience and knowledge and perfect taste; and in the seigneurs, who ordered these works, a wise and intelligent liberality which has hardly been, since that time, a peculiarity of persons sufficiently rich and powerful to undertake great works.

If Louis, Duke of Orleans, was a great spendthrift of public funds and if he abused the state of madness into which the King, his brother, had fallen, it must be admitted that, in the capacity of a wealthy seigneur, he built like a man of taste. It was he who rebuilt, almost entirely, the Château de Coucy, who built those of Pierrefonds and Ferté-Milon, and greatly enlarged those of Crépy and Béthisy. All the buildings undertaken by order of this prince are of rare finish and rare beauty. There will be found there what are so difficult to unite in one and the same building, perfect solidity, strength, elegance and that tasteful splendor which leaves nothing to caprice. From this point-of-view the buildings of Coucy, raised about 1400, have all the majesty of Roman buildings and all the charm of the most delicate designs of the Renaissance. Apart from the style peculiar to the epoch we have to recognize in the architects of this time a more marked superiority in construction over those of the sixteenth century; their conceptions are broader and their processes are more certain and more wise; they knew better how to subordinate details to the whole and how to build more solidly. The great Hall of the Château of Coucy, called the Salle des Preux (Hall of the Nine Worthies) is a perfect work; we can here show only some parts which relate to the subject matter of this article.

This Hall, in the second story, is above a ground floor whose vaults rest upon a row of columns and the lateral wall. It is not less than 16 metres wide and 60 metres long; that is to say, it can easily hold 2,000 persons. On one side, its windows open on the country through the thick curtain walls of the château; on the other side, on the interior court. Two enormous double chimneys warm it and the side windows are six in number, three on the outer side and three on the court, without counting an immense window to the south, opening under the soffit of the vaulted wooden roof. The side windows are also surmounted by dormer windows

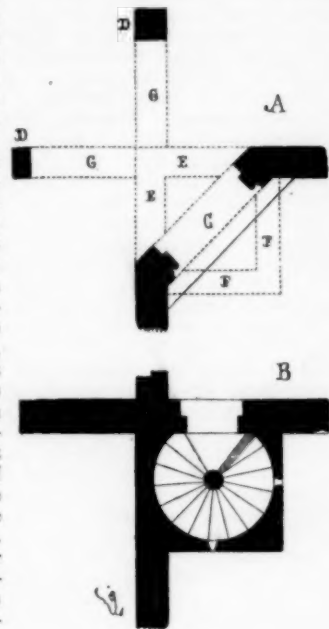


Fig. 135.

¹ Nothing strikes us as worse and more ridiculous than to wish, as happens only too frequently nowadays, to impose on architects something else than programmes; nothing gives a more gloomy idea of the state of the arts and those who profess them, than to see artists accept all the extravagances imposed by persons ignorant of practice, under the pretext that they pay the bills. Tailors have, on this score, more moral courage than many architects; for a good tailor will say, if one orders a ridiculous coat: "I cannot make you a garment which will disgrace my house and which will make a laughing-stock of you."

This evil dates sufficiently far back, for our good Philibert Delorme wrote about 1575:

"I desire to inform you, that for thirty-five years gone, and more, I have observed in diverse places, that the major part of those who have made or desire to make edifices, have begun them even so hastily as they have lightly considered of them: thereby has resulted most often repentance and derision, which always follow those ill-advised: in such wise, that they who think to understand truly that which they would do, have required the contrary of that which was possible and ought, indeed, to be done. And if by good chance they sought from some one advice touching their resolve and undertaking, it was a master-mason, or master-carpenter, as one is wont to do, or perhaps some painter, some notary, or others who hold themselves for well-informed, and for the generality have hardly better judgment and counsel than those who ask it from them—oftentimes likewise I have seen great personages who have deceived themselves, for as much as the most part of those who are about them, never wishing to gainsay them or desiring to please them, or indeed, because they themselves lack understanding, answer straightway with the words, 'It is well said, my lord; it is a fine invention, it is very well imagined, and shows truly that you have an excellent understanding; never will such another work be seen in the world.' But the flatterers think quite otherwise, and talk of it behind his back, or perhaps elsewhere. In this wise many seigneurs cheat themselves and are satisfied with their achievements."

We might go on and cite *in extenso* the six first chapters of the treatise of Philibert Delorme; we refer our readers to it as a masterpiece of good sense, of wisdom and probity.

in the roof. We give (138) a section of this hall taken through one of the side windows with the dormer above it, and (139) an interior perspective of this same window which has not less than four metres

at need, the soldiers posted in this footway could speak to the persons in the hall. The defenders were sheltered under a little roof supported by the battlements and isolated piers *A*. Daylight,



Fig. 136.

opening. The flat arch which spans it is built of ten voussoirs set with great care which, held in place by the curtain-wall, fully four metres thick, have remained horizontal without any iron framework. In the perspective view we have supposed the roof removed at *A*,

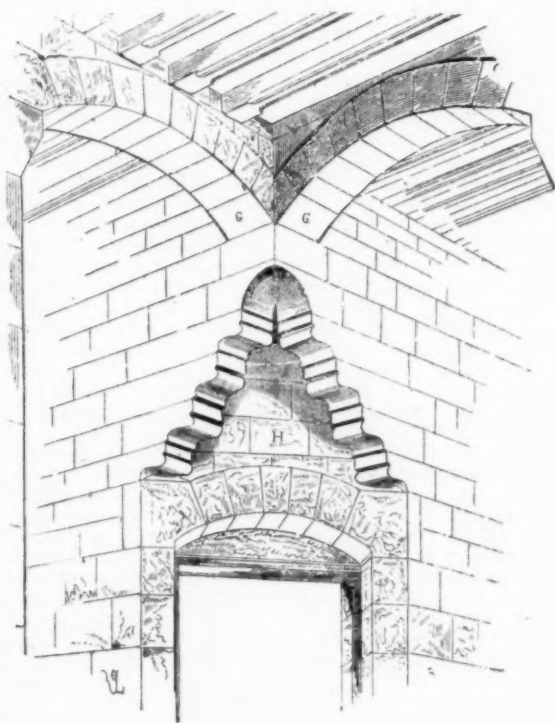


Fig. 137.

so as to show from the interior the construction of the dormer-window. These dormer-windows (see the section) open on the broad *chemin de ronde* (footway behind the battlements) so that

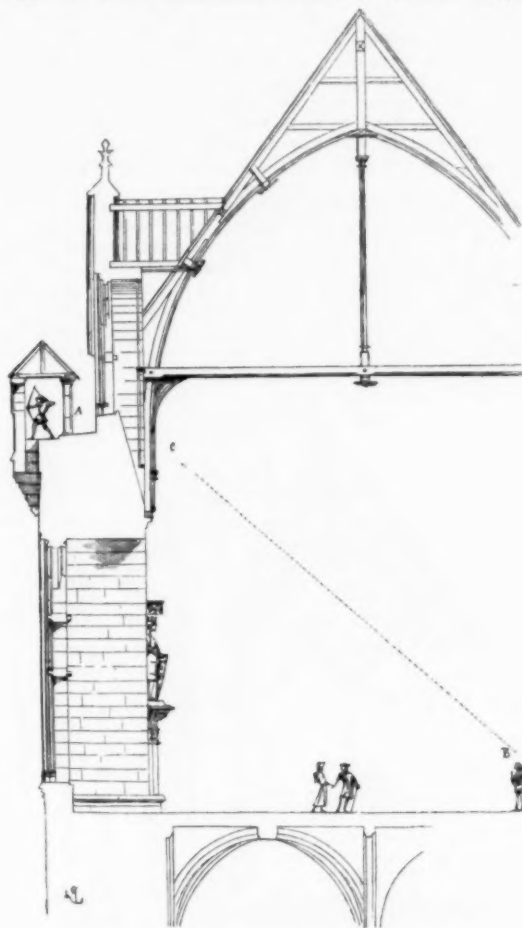
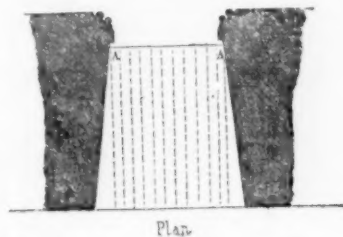


Fig. 138. Salle des Preux, Chateau de Coucy.

then, entered the hall through the dormer windows without hindrance and this construction is on so great a scale that from *B* in the



Plan.

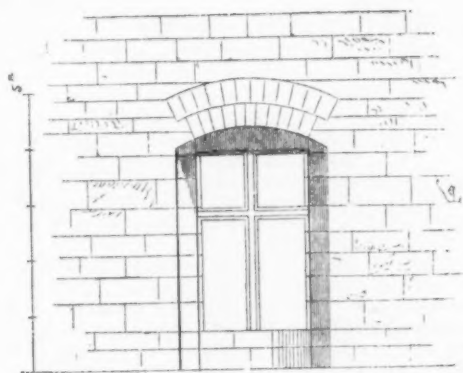


Fig. 140.

hall, one could not see the top of the roof of the *chemin de ronde* as is shown by the dotted line *BC*¹.

¹ These great halls were habitually floored with flags; they were washed every day and gargoyles were arranged to carry off the water. "The blood of the victims ran away on every side and poured out by the openings (rigel-stein) left near the sills of the doors" (*Nibelungen Lied*).

No trace of the roof remains and nothing is found to-day of all this noble construction, except the windows and the lower part of the dormers, which are enough, however, to give an idea of the stately arrangements. In the hall of the Salle des Preuses (hall of the Female Worthies) in the same château, are still to be seen windows which are vaulted as shown in Figure 140, so as to support a considerable load of masonry. The skew-backs of the double discharging-arches project over the splay as far as the impost *A* of the window (see the plan), so as to avoid warped surfaces in the voussoirs whose soffits are thus made parallel. The upper arch alone shows on the outer face of the wall and completely relieves the lintel.

It is understood, of course, that the constructors employed these powerful methods only in buildings of importance, less calculated to resist Time's ravages than the destructive contrivances of men. It seems even that in the interiors of châteaux, where there was no fear of an attack, the architects had tried to divert the occupants' eyes by very elegant and dainty forms. We know that Charles V had built in the Louvre, at Paris, a staircase and galleries which passed for masterpieces of the builders' art, and which compelled the admiration of all connoisseurs up to the time when these precious

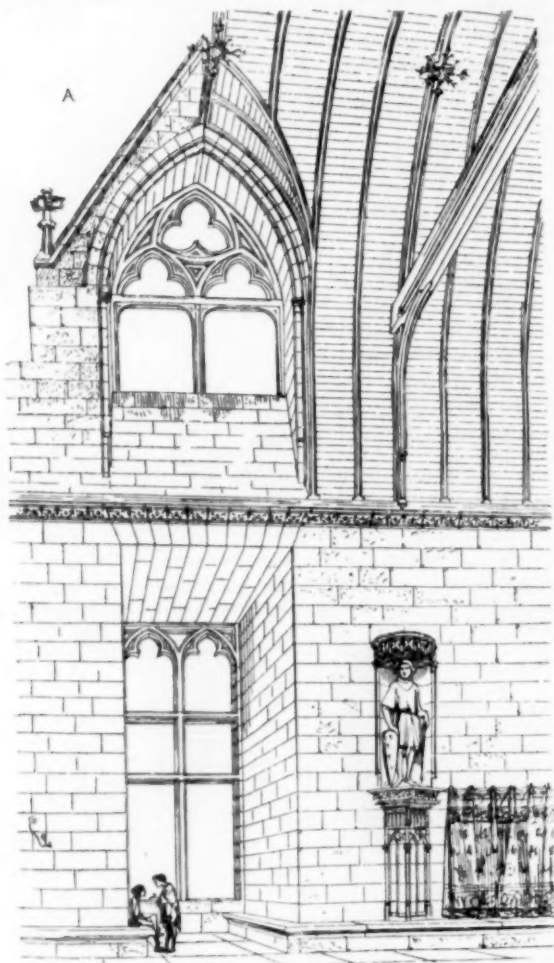


Fig. 139. Salle des Proux, Chateau de Coucy.

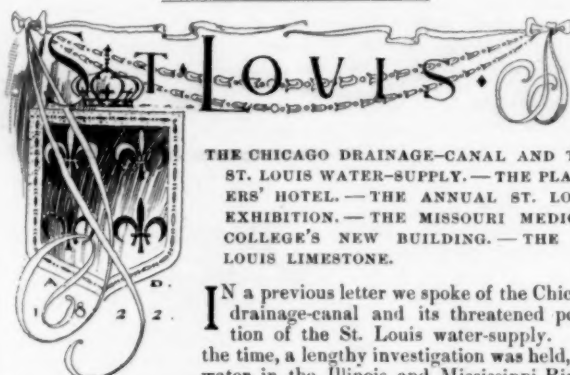
edifices were destroyed. Staircases in particular, which present innumerable difficulties to builders, excite the emulation of mediæval architects. There was no seigneur who did not wish to have a *degré* more elegant and better designed than that of his neighbor and, in fact, the little that remains to us of these indispensable accessories of châteaux always indicates a certain pretension as well as great ability in draughting.

For the more modest dwellings of townspeople as well, the construction becomes during the fourteenth and fifteenth centuries, lighter, more studied. It is then that they commence to want very large windows on the public highway, still more necessary because the streets were narrow; they adroitly combine wood with stone or brick; they endeavor to save room in interiors by diminishing the supports and by encroaching upon the public highway with projections of the upper stories; so that as a consequence, constructors had to return to timber-framing for their fronts.

We do not wish to unduly extend this article, already long enough, or to include here examples which properly belong to other sections in this "Dictionary"; we have endeavored merely to indicate the profound differences separating civil from religious construction in the Middle Ages. Our readers will do well to refer for more ample

details to the words: *Boutique, Charpente, Chéneau, Egout, Escalier, Fenêtre, Fontaine, Galerie, Maison, Pan-de-Bois, Plancher, Pont, Porte*, etc.

[To be continued.]



THE CHICAGO DRAINAGE-CANAL AND THE ST. LOUIS WATER-SUPPLY.—THE PLANTERS' HOTEL.—THE ANNUAL ST. LOUIS EXHIBITION.—THE MISSOURI MEDICAL COLLEGE'S NEW BUILDING.—THE ST. LOUIS LIMESTONE.

IN a previous letter we spoke of the Chicago drainage-canal and its threatened pollution of the St. Louis water-supply. At the time, a lengthy investigation was held, the water in the Illinois and Mississippi Rivers being sampled at various points, in order to determine just how much it was affected by the small amount of Chicago sewage which then passed through those streams. But the investigation has produced no tangible results and all this time the great drainage-canal is nearing completion. The most serious phase of the question from a financial point-of-view is that the new water-works plant, No. 2, which has just been completed at a cost of about \$7,000,000 is located on the Mississippi. It is thus readily apparent that before long the St. Louis water-supply will be poisoned with the dregs and waste of Chicago pork-packing establishments and the ordinary sewage of that town. It is true that the new water-works are located in the Missouri-River current of the Mississippi, the former stream debouching into the latter only four or five miles above the northern city-limits. However, practical results will, undoubtedly, show that in this distance the Missouri current could easily be poisoned, on account of the swift current, the accompanying whirlpools and ebullitions. If the water pumped from the Mississippi is soon found to be too poisonous and filthy at the site of the new works, but one course, in our opinion, lies open if the latter are to be utilized, namely, pumping direct from the Missouri itself, four or five miles above, by a conduit overland. We think that perhaps the Board of Water Commissioners had this in mind when the works were located. However, so far as quality is concerned, the Missouri in any case would not be much of an improvement over the Mississippi, except that it is freer from the dangerous nitrates and nitrites. The Meramec River, a beautiful stream flowing into the Mississippi to the south of the St. Louis, is most available for a water-supply. The water is very clear and pure, the river-bed being of the famous Meramec gravel, and the supply is abundant enough at all times to afford sufficient water for many years to come. It is six miles from the southwestern city-limits at its nearest point.

Although it makes a rather sudden digression, we now wish to say something regarding the new Planters' Hotel, which was opened to the public several weeks ago. This magnificent enterprise is the result of a resolution on the part of the Autumnal Festivities Association. With the possible exception of the Waldorf Hotel in New York, the new Planters' is the finest and costliest hotel in the United States. It stands on the site of the famous old hostelry whose name it bears, on Fourth Street, and extending from Pine Street to Chestnut Street, and is bounded in the rear by a private alley running through the block. Within the walls of the old hotel, ate and slept many of the world's famous men, among them the great novelists Dickens and Thackeray. So the new house has a reputation to uphold and, judging from the present outlook, it is likely to do so. The building is shaped somewhat like an E, the three wings facing on Fourth Street. This is a most excellent method of making all rooms outside rooms. The arrangement does not apply to the ground-floor and first floor, however, they being built all the way through. They are lighted by means of skylights, receiving light from the two courts above. The building is ten stories in height, the first being of Bedford stone, plainly dressed, but in good taste. The remaining stories are brick of a dull grayish-brown color and so they will show the ravages of soft-coal smoke—the curse of St. Louis—less than if they were of almost any other color, while in strong contrast the stone will show up the soot very rapidly. On the other hand, the stone will gradually assume the dark color of the brick. The trimmings are also of Bedford stone. The façade of each of the three wings fronting on Fourth Street has two rounded bays running from the second to the ninth floor. There are also two similar bays on the Chestnut Street and Pine Street sides. The central porch on Fourth Street, extending over the sidewalk, is of iron and is supported by Grecian Ionic columns. On entering the office one is struck by its lack of light. There is not sufficient natural light; the skylights, one over each of the two main staircases, do not provide as much light as they were evidently expected to, that is, so far as the office is concerned, or, we should more properly say, the rotunda. The latter is not as high, airy and cheerful-looking as we are accustomed to see in other hotels of note, it being necessary to provide artificial light at all times. We think this

fault could be remedied, in a measure, if white glass were substituted for the stained-glass in the skylights. The furnishing of the rotunda is very rich indeed, some beautiful marbles being employed which contrast well with the handsome electroliers. The grille work about the two elevator-shafts in the rotunda, as well as the rest of the building is very handsome, being of heavy copper bronze, but of light design.

The main staircases leading from the rotunda to the parlor-floor, at the north and south respectively, are each divided into two flights. Above the landing of each is an oval-shaped skylight in stained glass, receiving light from the two courts which divide the building into the three wings. On the south wall above the south landing is to be placed a fresco entitled "The Birth of St. Louis," by Paul Cornoyer, a local artist and pupil of Louis Blanc and Benjamin Constant, Paris. On the north wall, above the north landing, is to be a corresponding fresco by the same artist entitled "The Landing of Laclède," the founder of St. Louis.

The parlor-floor is the most sumptuous in the entire building, and to describe it in detail would require more space than we have at our disposal. At the centre of the east side of the front hallway, running north and south, is one of the gems of the whole structure, the Turkish room, one of the most complete that we have yet seen; far surpassing that of the Waldorf Hotel in New York. It is divided into three parts, all of which are separated merely by supporting pillars. There are two very handsome mantels in brown marble and multi-colored mosaics, all uniting to make an odd, but decidedly Oriental design in keeping with the other furnishings. Many of the tables and chairs are of exquisitely-carved ebony of a peculiar shape and design decidedly Turkish. Turkish armor over the mantels, Turkish tables and Turkish rugs prevail, some on the floor, and some made into cushions for the large settees which divide the room from the main hall, the hall side of same being in dark-green leather. The electroliers are of most unique design, in dark and light bronze, the former being the background and the latter appearing in the shape of numerous and various-sized crescents. Some of the bric-a-brac is very handsome, including beaten brass lamps, vases, etc. The woodwork is colored in light green, red and yellow, and architecturally, Saracenic details prevail.

The main hallway, mentioned above, is done in cream, light green and gold. The wainscoting is of dark and light brown marble. The electroliers are of very heavy old brass with perfectly round opaque globes. At the northern end of the hall on the left is the restaurant, and adjoining it, an apartment which is not exactly a drawing-room, but is used for general purposes — for meetings, conferences, etc. Adjoining the latter is the private dining-room for guests occupying the "bridal suite" at the northeast corner. The latter is a most sumptuous set of apartments. The private drawing-room is in the Empire style. Surmounting the very handsome mantle are three handsome pieces of Sevres, two vases and a jardiniere. The furniture is very attractive, and is of mahogany with bronze-gilt mountings as is usual with Empire furniture. The main dining-room is at the southern end of the hall and runs the entire width of the building on Chestnut Street, from Fourth Street to the alley. It is a very plainly-finished but elegant room. The culinary department, including kitchen, pantries, serving-rooms, china-rooms, etc., run along the alley, connecting the main dining-room and the restaurant at the opposite ends.

The upper floors of the building, eight stories, contain the sleeping-apartments, and the attic devoted to servants' apartments. The guests' rooms are fitted up in various woods, each floor being finished throughout in the same wood. The same fault is to be found with the sleeping-apartments of this hotel as with those of the most modern hostleries, namely, extreme plainness in every way when compared with the costly and sumptuous decoration of the remainder of the structure. There is a certain amount of sham and deception in this, which is extremely distasteful, and the transition experienced on going from the parlor to the first sleeping-floor is very sudden. Of course, the expense would be too great to ornament every nook and corner as lavishly as some parts of the building, but why not equalize things a little, and use some of the money spent on over-decoration in making the sleeping-apartments more inviting? We have in mind a first-class hotel in one of our principal Eastern cities where there are attractive etchings, water-colors and steel-engravings in the rooms, together with attractive furniture, wall-paper, etc., while the remainder of the interior is elegantly but plainly finished.

Off from the office on the ground-floor to the southeast is located the gentlemen's café. This is plainly but neatly furnished in oak. West of the café and opening on Chestnut Street is the bar-room. This is fitted up more or less in the style of the café. The barber-shop is one of the most elaborate apartments of the great building. The entire room is in white marble, and the handsome electroliers and brackets give it a most inviting appearance.

The art display at the annual St. Louis Exhibition was, in our opinion, poorer this year than usual. There has been a lack of effort somewhere to gather together a few, at least, of the world's famous pictures, and the space which was last year devoted to a very interesting collection of rare vases, antique fans, etc., has this year been given up to a reproduction of the agricultural and horticultural display of the State of Missouri at the Columbian Exposition! Local talent, of a certain kind, that is, has exerted itself, because there were some pictures on exhibition which it was a crime for any

one ever to have painted. The display of photographs was as large, if not larger, than usual, and the numerous exaggerated and ridiculous poses exhibited in many of the prints, mostly intended to catch the eye of our country cousins, were as omnipresent as usual. Mr. F. Hopkinson Smith exhibited a fine set of water-colors, all scenes in and about Venice, and these were the most pleasing pictures in the exhibition. Mr. Smith certainly understands his subjects, because even to the minutest detail of color and effect his work is extremely faithful to the originals; on first sight his pictures bear the unmistakable imprint, or, we should say, inspiration of the native artists. The color of the proverbially rich blue water of the Adriatic is sometimes a trifle overdone, but we attribute this chiefly to Mr. Smith's evident enthusiasm over his delightful subjects more than to any ignorance. There are altogether thirty-two pictures in the set. A painting by Jules Muenier, member of the Société des Artistes Français, entitled "The Watering Place," is an interesting study from life, representing a full-grown boy in bared legs on horseback riding across a bit of water, the horse stopping to drink a moment. One of Detaille's war pictures, entitled "Champigny," is one of that long series of pictures, with nothing distinctive about it, produced by the famous student of Meissonier. A picture entitled "The Communion" was exhibited by Henry Lerolle, French artist. This is a companion picture to his "Organ Recital" owned by the Metropolitan Museum of New York. "The Communion" is a weird picture as to coloring and represents some nuns receiving communion from the priest's hands at the altar-rail. It is a very large canvas. "The Little Brother," by Alfred Guillon, is a striking delineation of the French peasant type. The picture represents a peasant holding in arms a child. Both faces are strikingly of the French peasant type. Von Uhde exhibited his picture entitled "A Sewing-Bee in Holland," which represents in a delightful way the "sewing-school for scandal" as it is in the Netherlands. Mr. Brinhurst, of St. Louis, exhibited his figure for an electric-light. He also showed three sketches which are of local interest chiefly, namely, one for an equestrian statue of General Sherman, which will, we hope, some day be placed in Twelfth Street, another for a figure in the new St. Louis Union Station, and a third for a monument to Laclède and Chouteau, the former the founder of St. Louis. Mr. Brinhurst also exhibited fourteen other subjects. M. de Munkacsy was represented by his famous picture, "The Story of the Hero."

The Missouri Medical College is erecting a very handsome limestone-front building next to its dispensary on Jefferson Avenue, between Lucas and Washington Avenues. It is four stories in height and the style is pure Grecian-Ionic influenced by the modern French school. The fourth story has somewhat of a balustrade effect, that is, as far as the façade is concerned, similar to those on the Woman's Building at the World's Columbian Exposition. In the case of the Medical Building the balustrade serves the purpose of a story unlike the roof-gardens on the Woman's Building. The large Classical windows and main portal, as well as the pure Classical details generally lend a most satisfactory and pleasing aspect to the building. Classical designs are quite the rule in St. Louis these days; almost every building of note that we have in mind, now in course of erection, is in one of the Grecian or Roman styles. Mr. Van Blarcom's new house in Westmoreland Place is a most pleasing specimen of Romanesque architecture. The Medical College's new building and Mr. Wm. McMillan's house in Portland Place are evidences of the appreciation in which white St. Louis limestone is now being held. Heretofore, it has been deemed fit only for paving, foundation and other like uses, but its pure whiteness, durability and susceptibility of very smooth finish (not polish) have shown it to be a most desirable stone. Local builders send to every State, from Maine to California, and this is no exaggeration, for good building-stone, when they can find the very best twenty feet or so beneath the surface of the ground on which they are erecting a building. Of course, for red, green and other colored stones they have to seek elsewhere, but the idea of using Bedford stone from Indiana, free-stone from Illinois, and sandstone from the interior of Missouri seems absurd when a so much better stone is to be found a few feet beneath the ground on which the city rests. Actual examples in various parts of the city show the greater durability of the St. Louis limestone over all others.

A wealthy resident in one of the fashionable "Places" possesses one of the handsomest art-galleries in the country, and by far the handsomest in St. Louis. One interesting point in connection with it is that all the decorations were removed from the gallery in his old house, down town, to the new one, bodily, even to the stained-glass windows. He could hardly have left the latter behind, because they are very handsome. The woodwork of the room is antique oak and in design English Gothic. In fact, the whole room bears an unmistakably English air. The doorway leading from the main hall to the room is at one side of the latter. To the left is a large and cheerful and decidedly English fireplace, while opposite it in the middle of the room stands a heavy oak seat large enough to seat four or five persons. On the right are two doorways separated by a wall-space leading to an alcove. Just opposite the doorways are the group of four stained-glass windows, separated by mullions in the English Gothic style. The owner possesses some very fine pictures, and very sensibly has them all closed in glass-fronted frames to preserve them from smoke and dust.

Work is progressing very rapidly on Station No. 3 of the St. Louis Water-works System at Baden, the extreme northeastern portion of St. Louis. This is to be a distributing-station in connection with Station No. 1, located at Bissel's Point. The large five-mile conduit conducting the water from Station No. 2, at Chain of Rocks, to the Bissel's Point Station passes through the site of the Baden plant. At a point on the site, a gate-house has been erected for directing a portion of the water to the settling-basins there located and, after settlement, pumping water to the new and thickly-settled portion of the city to the west of Grand Avenue which the Bissel's Point Station (No. 1) is unable to reach. The Baden plant will cost the city nearly \$1,000,000 before it is finished, but it will soon pay its cost in giving to the West End proper water facilities, which means higher licenses.



SYDNEY, N. S. W.

"IS Sydney liable to be destroyed by fire?"

The writer of a series of articles on the subject in a daily paper asserts that it is, and roundly accuses the architects of almost criminal carelessness; and, as if this were not bad enough, Mr. J. Horbury Hunt, the President of the New South Wales Institute of Architects, rushes into print in support of these assertions. It is somewhat reassuring to find that Mr. Hunt's opinions are not shared by any of his brother architects, for, at a meeting of the Institute called for the purpose, the matter was somewhat warmly debated, and the articles characterized as unjust and unnecessarily alarming in their tendency. The president, too, was taken to task for giving his support to the newspaper writer's highly-colored assertions. The fact of the matter is that Sydney is no more liable to destruction by fire than any other city of a similar size; but a large warehouse in George Street was recently burned to the ground, and here, as elsewhere, after every conflagration, swarms of dismal fire-prophets arise, like flies after rain, and fit in print about the ruins, with that dismal raven-croak of theirs — "I told you so!" and the architects have to bear the brunt of their attacks. There are, of course, many buildings here which are a menace to the city's safety; but for these the architects should not be held wholly responsible.

The public seems to forget that the architect is his client's servant until the contract is signed; and if the client wishes to erect a building of the greatest possible size for the smallest possible sum, the architect is by necessity compelled to follow his instructions. So long as he does not fall foul of the Building Act — such as it is — and so long as the insurance companies are prepared to indemnify him in case of loss by fire, why should the capitalist care? And he doesn't care, accordingly. I am certain that I am not overstating the fact when I say that there is not an architect practising here who is not capable and willing to erect buildings which shall be practically fireproof, but this means expense; and while, as I say, the underwriters are content to take the risk, very few capitalists will be found to sacrifice themselves upon the altar of public welfare. The writer of the articles in question has, of course, some reason on his side, but he is undoubtedly an alarmist, and does wrong in making us bear the burden of sins which are not our own. A great fire is not always an unmitigated evil, and one here now would, at least, give an impetus to the building trades, which sadly need some stimulant, for they are practically moribund. It is but a small consolation to know that our friends in Melbourne are in a worse case than ourselves. So bad is it there, that at a recent "Smoke Night" of the Victorian Artists' Society the Chairman thought it necessary to make some prefatory apologetic remarks for the amusement they were about to indulge in. Their objects at such gatherings were, he said, analogous to those of that Coopers' Guild, which, some hundreds of years ago, went singing through the streets of a plague-stricken city to remind the despondent that the plague with its evils was but temporary, while Nature with her bounties was eternal. Their object was, therefore, to lighten the burden of a dismal time.

Dismal, indeed, it is, all over Australia; and to make matters still worse for the poor architects, all public buildings in New South Wales are again being carried out by the Government Architect's Department, despite the well-intentioned efforts of a former Ministry to have all works, above £5,000 in value, submitted for competition among private practitioners. An elaborate Code of Conditions for regulating competitions under this system was formulated, and two competitions have already taken place — the first for a gaol at Grafton, and the other for a lunatic asylum at Kenmore, near Goulburn. In addition to these, Mr. J. Kirkpatrick was commissioned by the Government to complete the Sydney Hospital, to which I have before referred in these letters. The Gaol competition was won by Mr. H. A. Wilshire, and the work has since been

carried out under his supervision. The Kenmore Asylum, after much delay, has been definitely placed in the hands of the Government architect, and he has compiled a plan in which he has sought to combine the best features of the three premiated designs. Of course, the Government is legally right in acting so; but it is a moral outrage that, by the payment of a few hundred pounds in premiums, any Ministerial body should have the right to deprive the authors of the premiated designs of all the credit of their work. Worse still, the Government architect declares that the Grafton Gaol and the Sydney Hospital work could have been carried out in his department at a cost of little more than two per cent; whereas, Mr. Wilshire and Mr. Kirkpatrick were each paid five per cent. It is needless to say that no architect believes this statement, and some returns asked for, in support of the assertion, will be eagerly looked for. It is curious to note, however, that in the architectural branch of the Education Department — according to some figures recently published — the cost of designing and superintending the erection of our State schools, in salaries alone, is nearly six-and-a-half per cent. To this must be added the rental value of the very expensive office-buildings occupied by the staff, cost of material, etc. So that if the Government architect's figures are correct, no time should be lost in wiping the architectural branch of the Education Department out of existence.

In the above-mentioned Competition Code, one of the conditions is that a margin of ten per cent above the original estimated cost shall be allowed; if this should be exceeded, the Minister reserves the right to reject the design. But the Government departments, with no competition to fear and ample time in which to work up their designs, exceed their own estimates with apparent impunity — often by as much as fifty per cent. The Ocean Street tramway, which has just been completed, is a case in point. The estimated cost was £80,000, and on these figures its construction was recommended by the Public Works Committee, and approved of by the Railway Commissioners. But the actual cost was within a few pounds of £160,000! The power-shed alone — which is an architectural nightmare — cost £21,000; that is, rather more than sixty per cent in excess of the estimated amount, viz, £13,000!

CREOSOTE STAINS.

WHATEVER the origin of shingles may have been, it is certain, says A. Ashmun Kelly in *Painting and Decorating*, that shingle staining is a modern American method of contributing to the external decorative appearance of residences and other buildings. That they fulfil that object there can be little doubt, even though it be true that the staining is not always satisfactory. Nothing of human origin ever is.

A recent writer calls attention to the practice, prevalent in this country, of keeping rural houses glaring with fresh paint, instead of allowing them to become age-stained, as rural cottages of Europe are. Now, the stains we use are, in a measure, the equivalents of those produced by time on bare wood. Rare effects can be had by blending two shades together, and the single-tone stains are also beautiful and effective. There is no use denying their original beauty at least. People like them, and what people like they have, no matter what artisans may say against the object of their liking.

Creosote has for years been known as a most effectual wood preservative. It was first introduced in England in 1858, and in America in 1865. It is extensively used in all parts of the world for this purpose. It is a product of coal-tar, that wonderful and prolific source of so many useful and beautiful products. The distilling process gives us several grades of the article creosote, containing various hydro-carbons. The odor is unpleasant, pungent and strong, but soon disappears upon exposure to the fresh air. An idea of its remarkable penetrative power may easily be obtained by placing it upon a thin board. In a little while it may be detected upon the opposite side by its odor.

Thus may be seen that, for an outside stain, a creosote preparation possesses peculiar value. Linseed oil is the vehicle employed to carry it, and the several beautiful shades given these stains are obtained from ordinary painters' colors, ground in oil to the last degree of fineness. It is upon this point that transparency of colors hinges. Coarsely-ground colors will not give clear translucent shades. This, I believe, is all the secret about the manufacture of creosote combinations, but some of them are gas-stains, or are made from petroleum oils, and are not by any means to be recommended. It is difficult, if not impossible, to get lead paint to remain over such stains, or to keep the stain from striking through the lead coat. True, shellac varnish, that universal panacea for all painters' difficulties, good for a cut finger or a damp wall, may be used over the stain to prevent trouble, but the operation is costly, and prevention is much better.

The question of durability having been raised, it is worth while to inquire into this objection. Obviously, being in part creosote, a very lasting matter, creosote stain, considered solely from this point-of-view, is durable. But as to holding its color, that is another question. Probably it does it no better than ordinary paint. Some think, not so well. A well-known manufacturer of such stains declares that he has known of its retaining its original color for nine years, and he adds that it usually wears well from four to seven years. Much, however, seems to depend upon how the work is done. For instance, wet or green shingles are inimical to good wearing,

just as with paint. This same gentleman tells of seeing a painter dipping shingles, one side of which was coated with ice. Where shingles are tied up in bundles, it would be well to untie them, and spread them out to dry, before dipping them. It is not unfrequently the practice, too, to employ cheap labor, such as boys or unskilled men, to do the dipping, and good results must not be expected where such is the practice. A quarter of a century's experience has taught me that it takes a skilled mechanic to sandpaper or putty well; it's not a boy's or laborer's work. Neither is shingle-staining, simple though the work seems. Mr. Coppins tells us that he "has seen dry-rot in both stained and painted shingles." This could not possibly occur where thorough work has been done.

There was quite a hue and cry against creosote stains in the city of Buffalo, some time ago, and inquiry elicited the fact that some painters there, of prominence, I understand, had been in the habit of changing the original stains by adulteration, and in one or two cases (I forget which) one manufacturer brought suit, where a shop-made mixture had been substituted for the goods called for by the architect's specifications. This led the New York Association to discuss creosote stains and staining, at one of their sessions, and Mr. Cabot, the well-known manufacturer, was invited to prepare and read a paper, which he did. Since that, I have heard nothing concerning this matter.

Finally, as to the durability of creosote stains, it may be said that careful treatment is sure to render the most satisfactory results possible. The wood to be treated should be thoroughly dry. The stain should be kept stirred, so as to yield uniform color and density of

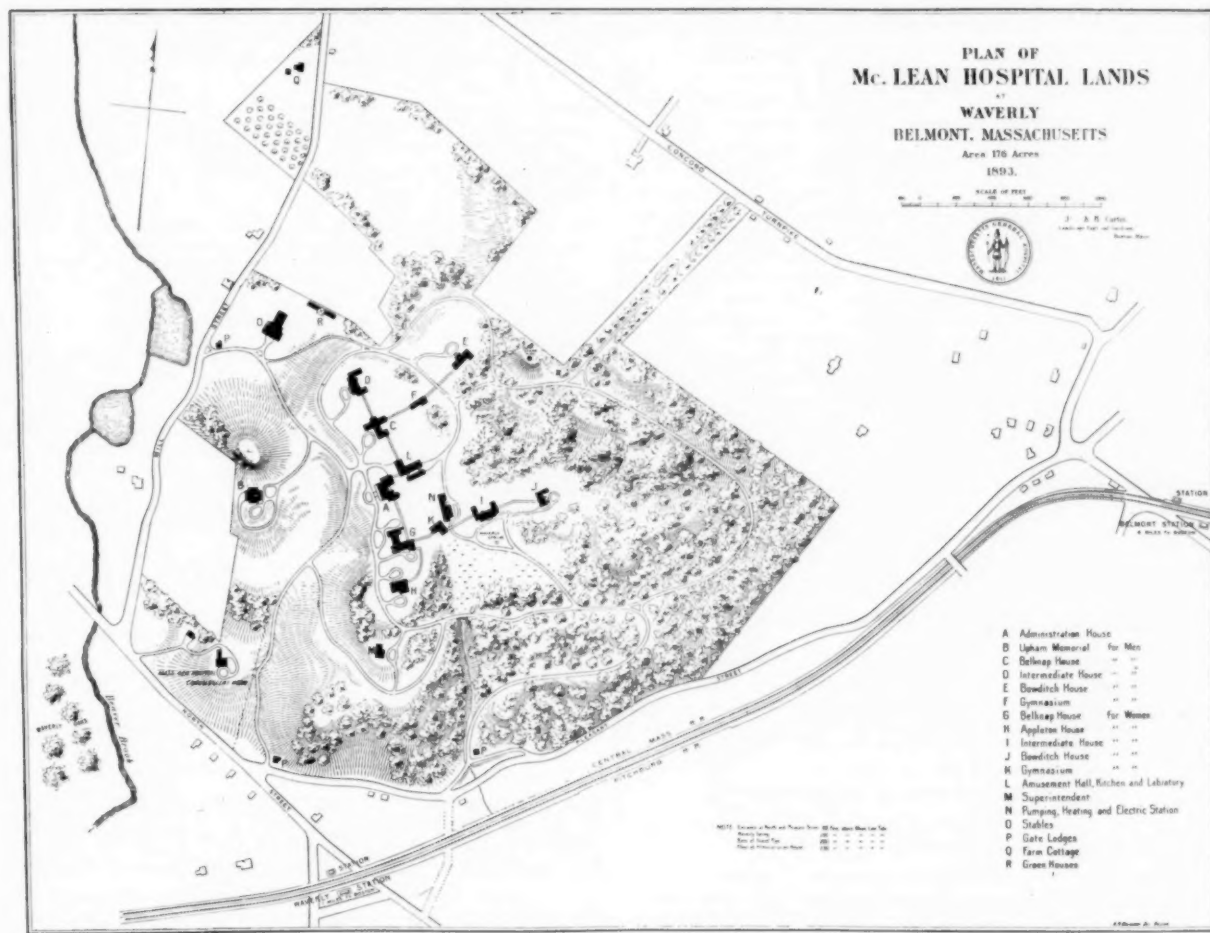
to run into a cistern, allow the first few rains to run elsewhere, after which no trouble may be looked for. It would not poison a person who should drink such water, it would simply taste or smell unpleasantly. Where gas-tar or petroleum-oil stains are used, it is likely that there would be trouble with the water as long as the stain lasted. A paint compound containing tar and petroleum and applied to a flat tin roof, I know to have vitiated the water ever after. Should the creosote stains contain poisonous pigments, such as the chromates of lead, their use would be objectionable on roofs intended to catch water for cisterns. Those stains only should be used that owe their coloring to non-poisonous pigments, such as ochres.

ILLUSTRATIONS

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

SOME OF THE BUILDINGS OF MCLEAN ASYLUM FOR THE INSANE, WAVERLEY HILLS, BELMONT, MASS. MESSRS. SHEPLEY, RUTAN & COOLIDGE AND SHAW & HUNNEWELL, ARCHITECTS, BOSTON, MASS.

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



material, and only linseed oil used to thin with. The boy or day-laborer forgets to stir the stuff, and the boss puts in coal-oil or turpentine. I never yet found a journeyman who did not object to using the creosote stains. It burned his hands or destroyed his eyes. It was poisonous. In part, these charges were true. Creosote hurts the eyes and the skin, but it is not poisonous. On the contrary, it possesses remarkable healing powers. It is efficacious on cuts, burns and sores, when other remedies fail. It at first causes some pain, but this soon passes away and healing begins. It is used to cure meat. Men who work in creosote stain-works are healthy, and are never known to complain of the stuff injuring them in the least. They become accustomed to it. Painters would, too, if obliged to use it more frequently. A master-painter, Mr. McInness, tells us that it burned his paint-pots out. Salt, also, would destroy his paint, and salt can hardly be said to be poisonous. Another objection to creosote stain is, that it vitiates water that is intended for culinary uses. In any case where the water from a freshly-painted roof is arranged

THE "SKY-SCRAPER," A DESIGN BY MR. JOHN MOSER, ARCHITECT, NORFOLK, VA.

SEE article under this title elsewhere in this issue.

STORES ON PORTLAND STREET, BOSTON, MASS. MR. JOHN L. FOX, ARCHITECT, BOSTON, MASS.

This building is just finished.

DOORWAY AND MANTEL-PIECE AT NEWPORT, R. I. MEASURED AND DRAWN BY MR. J. B. BLAIR.

HOUSE FOR DAVID RICE, ESQ., MARION, MASS. MR. A. W. RICE, ARCHITECT, BOSTON, MASS.

EPWORTH M. E. CHURCH SOUTH, NORFOLK, VA. MESSRS. CARPENTER & PEEBLES, ARCHITECT, NORFOLK, VA.

[Additional Illustrations in the International Edition.]

UPHAM MEMORIAL BUILDING, MCLEAN ASYLUM FOR THE INSANE, WAVERLEY HILLS, BELMONT, MASS. MR. W. Y. PETERS, ARCHITECT, BOSTON, MASS.

[Gelatine Print.]

MEN'S INTERMEDIATE BUILDING, MCLEAN ASYLUM FOR THE INSANE, WAVERLEY HILLS, BELMONT, MASS. MESSRS. SHAW & HUNNEWELL, ARCHITECTS, BOSTON, MASS.

[Gelatine Print.]

GENERAL VIEW OF THE MCLEAN ASYLUM FOR THE INSANE, WAVERLEY HILLS, BELMONT, MASS.

[Gelatine Print.]

THE "MARBLE-ROOM" IN THE HOUSE OF MR. VAL C. PRINSEP, R. A., HOLLAND PARK ROAD, KENSINGTON, LONDON, ENG. MR. PHILIP WEBB, ARCHITECT.

BRICK-VAULTING IN THE GRAMMAR SCHOOL, READING, ENG. MR. ALFRED WATERHOUSE, 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.]

JET: JETTY.

BOSTON, MASS., December 3, 1894.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—I do not like to differ with Mr. Ernst in regard to any of the curious Colonial etymologies which he describes in so interesting a way, but it seems to me that our word for the modern-engineering structure, consisting in a long pier projecting into the sea, which our forefathers knew nothing about, is more likely to be derived from the French "*jetée*," meaning exactly the same thing as the modern English word "*jetty*," than from "*jet*," meaning simply the projection of a cornice or overhanging story. This word, "*jet*," by the way, is still in common use among the New England country carpenters, to denote both the amount of projection of a cornice, and the cornice itself. "How much jet will there be to the eaves?" is one of the first questions that an architect has to consider with his rural contractor; and the same individual soon after begins to inquire when the detail drawing for the "*jet*" will be ready.

T. M. CLARK.

THE CHARGE FOR MANTEL-PIECES, ETC.

MONTREAL, 1894.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Would you kindly state what you consider a fair and reasonable charge for making designs and details for mantel-pieces, furniture, selecting hangings, tiles, electric fixtures, etc., when such work is done in connection with full professional services on private residences.

Also what would be a reasonable commission for banking fixtures and stone-fittings? Yours respectfully, B. T. B.

[The usual charge for all these things is from ten per cent on the cost, as a minimum, to twenty per cent, or more, where the work of design bears a considerable proportion to the cost of the article. EDS. AMERICAN ARCHITECT.]

TO SECURE WOODEN SLEEPERS.

WASHINGTON, D. C., November 24, 1894.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Can you inform me of an approved method of securing the wooden-floor sleepers in fireproof buildings to the iron beams? Yours truly, W. M. POINDEXTER.

[The simplest way is, after the terra-cotta or other arches are done, to take a 2" x 3" or 2" x 4" piece, or larger, according to the spacing between the iron beams, cut a notch in each end, fitting the upper flange of the iron beam, and wedge in place, at right angles with the iron beams, by laying in obliquely and driving into position with a mallet. Concrete or cinders may then be filled-in between the sleepers. A common method, also, is to give the sleepers a dovetail section, and lay in the concrete of the arch or filling. EDS. AMERICAN ARCHITECT.]

THE FAMILY WEIGHING-MACHINE.

SAN DIEGO, CAL., November 13, 1894.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—I would like to suggest the placing of the family scales in the bath-room as the most proper place for that new feature of the well-furnished dwelling.

The only honest method of weighing one's self is when minus one's clothes, and as the bath-room is the one room in the house that is used as a common undressing apartment, it seems as if that should be the place selected for locating this handy nickel-in-the-slot ma-

chine. The nickels used to operate the contrivance might form the family missionary fund and be removed half yearly or annually, to suit.

The platform of the scales, I will say, would be, when at rest, flush with the floor, and the glass-faced disk, with its figures and pointers, together with the upright case connecting disk and platform, to be quite out of the way, should be set into the wall.

By arranging the machine after this manner, that is to say as a close fixture of the room, it could not offer any obstruction to persons visiting the said room, and the disk-frame and platform might even be made to contribute something to the room's attractiveness.

Respectfully,

B. FRANK LEEDS.



BOSTON, MASS.—Exhibition of Millet's "*Sower*" and other Paintings loaned by Quincy A. Shaw, also, Ancient Chinese Buddhist Paintings, the Works of Adolf Menzel, and Drawings by John Trumbull: at the Museum of Fine Arts.

Drawings by Charles Dana Gibson: at Doll & Richards, 2 Park St., November 30 to December 12.

Pictures by Joseph Lindon Smith: at the St. Botolph Club, November 26 to December 12.

Exhibition of Pictures of New England Life by New England Painters: at Jordan, Marsh & Co.'s, opened November 27.

Dielman's "*Marriage of Dr. Le Baron*," and Water colors by William Adam: at Williams & Everett's, 190 Boylston St., opened November 26.

CHICAGO, ILL.—Seventh Annual Exhibition of American Oil-paintings and Sculpture: at the Art Institute, October 29 to December 17.

Water-color Exhibition: at F. Keppel & Co.'s, 1 Van Buren Street.

CLEVELAND, O.—Eighteenth Annual Exhibition of the Cleveland Art Club: December 17 to 22.

NEW YORK, N. Y.—Thirteenth Annual Fall Exhibition of the National Academy of Design: opens December 10, closes January 5.

Loan Exhibition: at the Metropolitan Museum of Art, New North Wing opened November 5.

Fifth Annual Exhibition of the New York Water-color Club: at the Galleries of the American Fine Arts Society, 215 West 57th Street, December 1 to 22.

Zachille Collection of Arms and Armor: at Tiffany & Co.'s, Union Square.

Exhibition of Historical Book-bindings: at the Grolier Club, December 6 to 27.

Pastels after Celebrated Originals in European Galleries, by J. Wells Champney: at Knoedler's, 170 Fifth Ave., closes December 23.

Pictures by Adolph Artz: at William Macbeth's, 237 Fifth Ave., December 1 to 22.

"Little Girl Pictures" by Miss Maria Brooks, and Water-colors by Dutch Artists: at H. Wunderlich & Co.'s, 808 Broadway, opened November 24.

Exhibition of Du Maurier's Original Drawings for "*Trilby*": at the Avery Galleries, 368 Fifth Ave., December 3 to 15, also, Paintings by A. C. Howland: December 4 to 22.

PHILADELPHIA, PA.—Sixth Annual Exhibition of the Art Club of Philadelphia: opens November 19, closes December 16.

Sixty-fourth Annual Exhibition of the Pennsylvania Academy of Fine Arts: opens December 17, closes February 23.

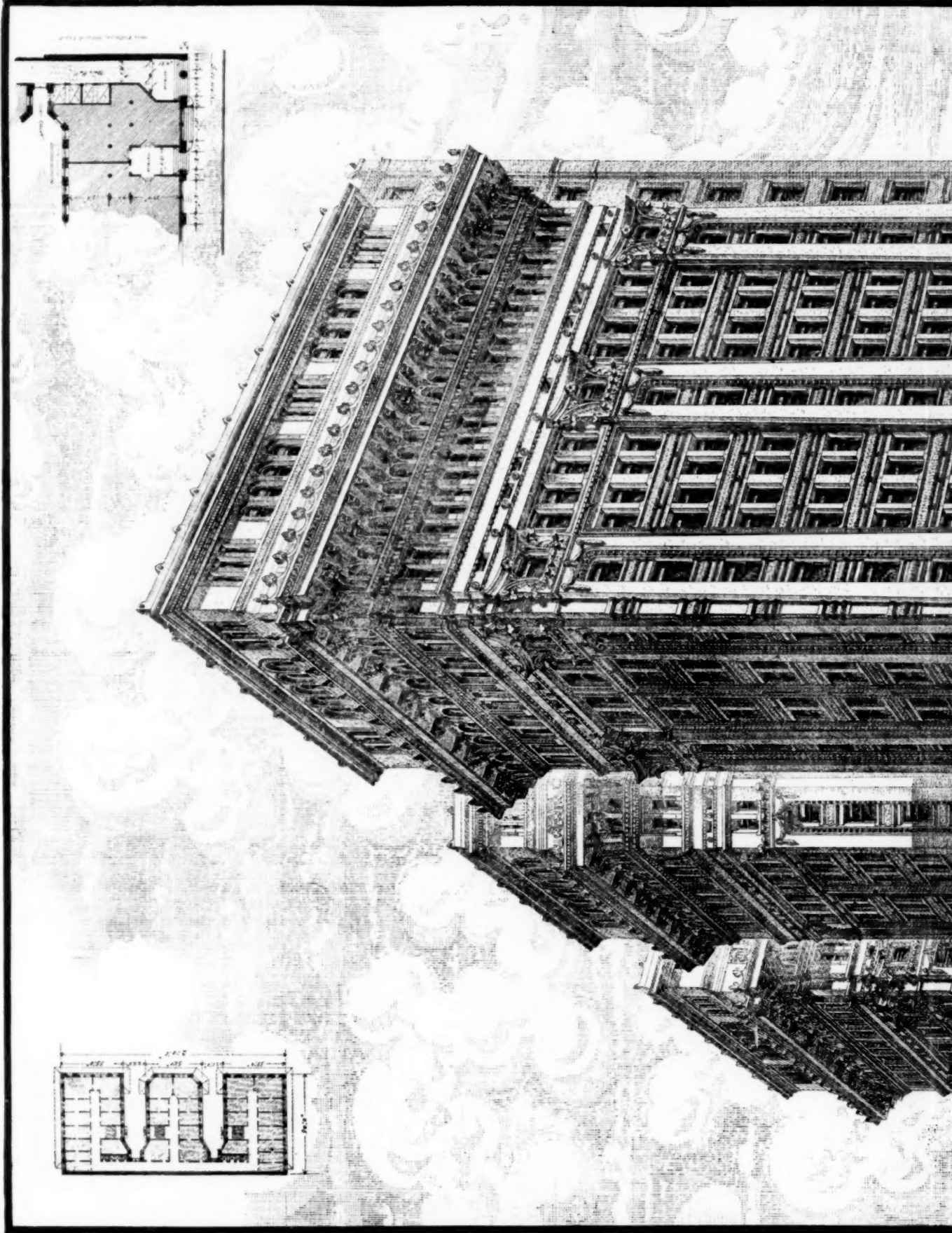
PROVIDENCE, R. I.—Exhibition of Works by Contemporary Rhode Island Artists: at the Art Club.

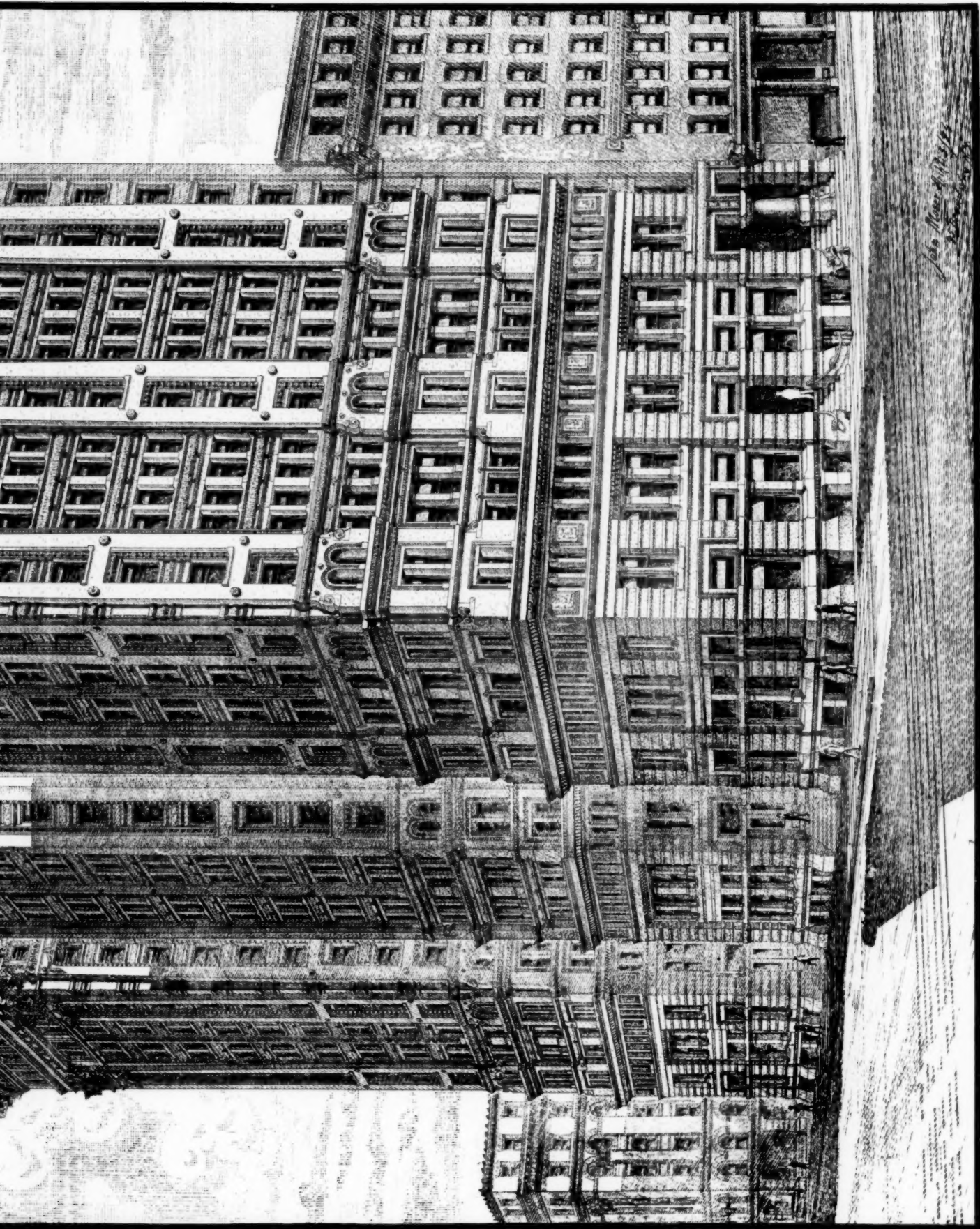


SIR CHARLES NEWTON.—The death is reported from London of Sir Charles Newton, the archaeologist and antiquary. He was born in Herefordshire in 1815, and was educated in Shrewsbury School and Christ Church, Oxford University, of which he was a Faculty student. In 1840 he was appointed one of the assistants in the Department of Antiquities in the British Museum, which post he held until 1852, when, being anxious to rescue from oblivion some of the ancient sculpture on the coast of Asia Minor and on the islands of the Aegean, he obtained the appointment of Vice Consul at Mitylene. After having spent several years in exploring the archipelago he discovered at Budrum (the ancient Halicarnassus) the site of the mausoleum erected by Artemisia, and carried on extensive excavations at Cnidus and Branchidae, between 1856 and 1859. The results of his discoveries consist of a fine collection of sculptures from the mausoleum and other places, deposited in the British Museum, which is indebted to him for a very interesting collection of Greek inscriptions, vases, coins, and other antiquities. In 1860 he was appointed British Consul in Rome, in 1861 keeper of the Greek and Roman antiquities in the British Museum, and in 1880 professor of archaeology in University College, London. He was elected an honorary fellow of many colleges. At the time of his death he held the honorary post of antiquary to the Royal Academy. He was the author of many works. His wife, a daughter of Joseph Severn, was a celebrated artist. She died in 1893. — *Exchange*.

No. 979.

AMERICAN ARCHITECT AND BUILDING NEWS, DEC. 3, 1894.

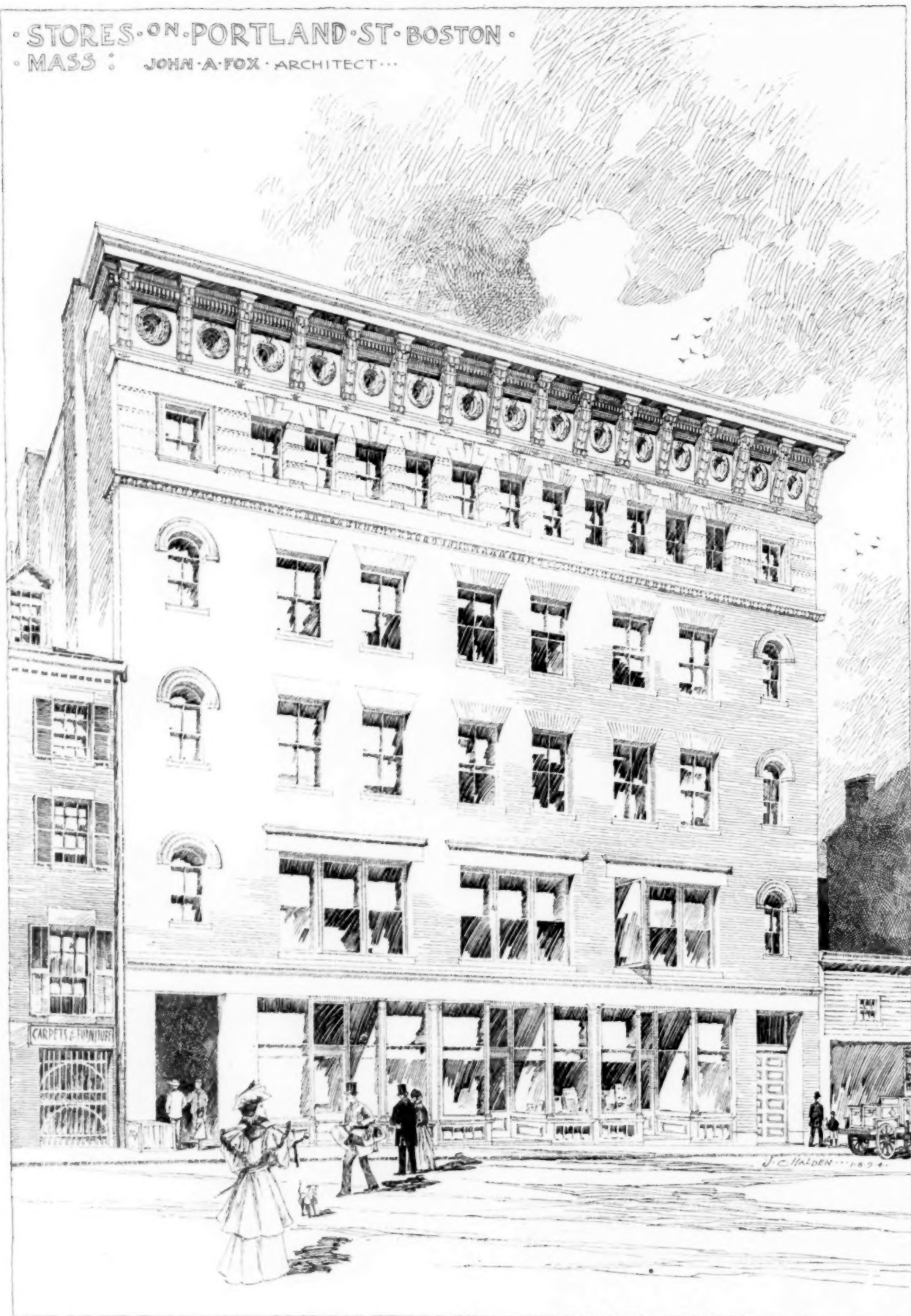




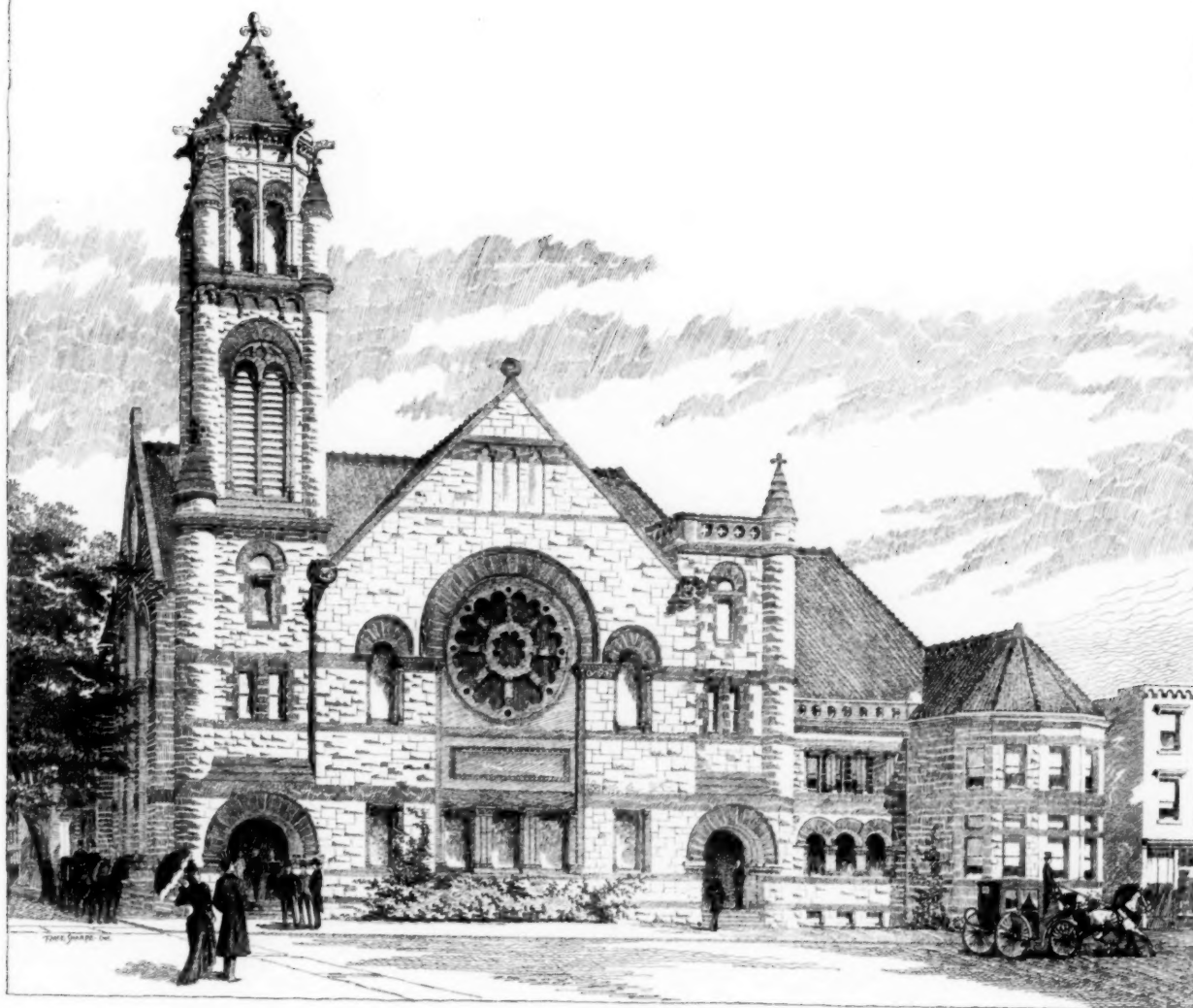
RELIATIVE PROPORTIONS OF BUILDING

"THE SKY-SCRAPER"—A DESIGN BY JOHN MOSER, F. A. I. A.

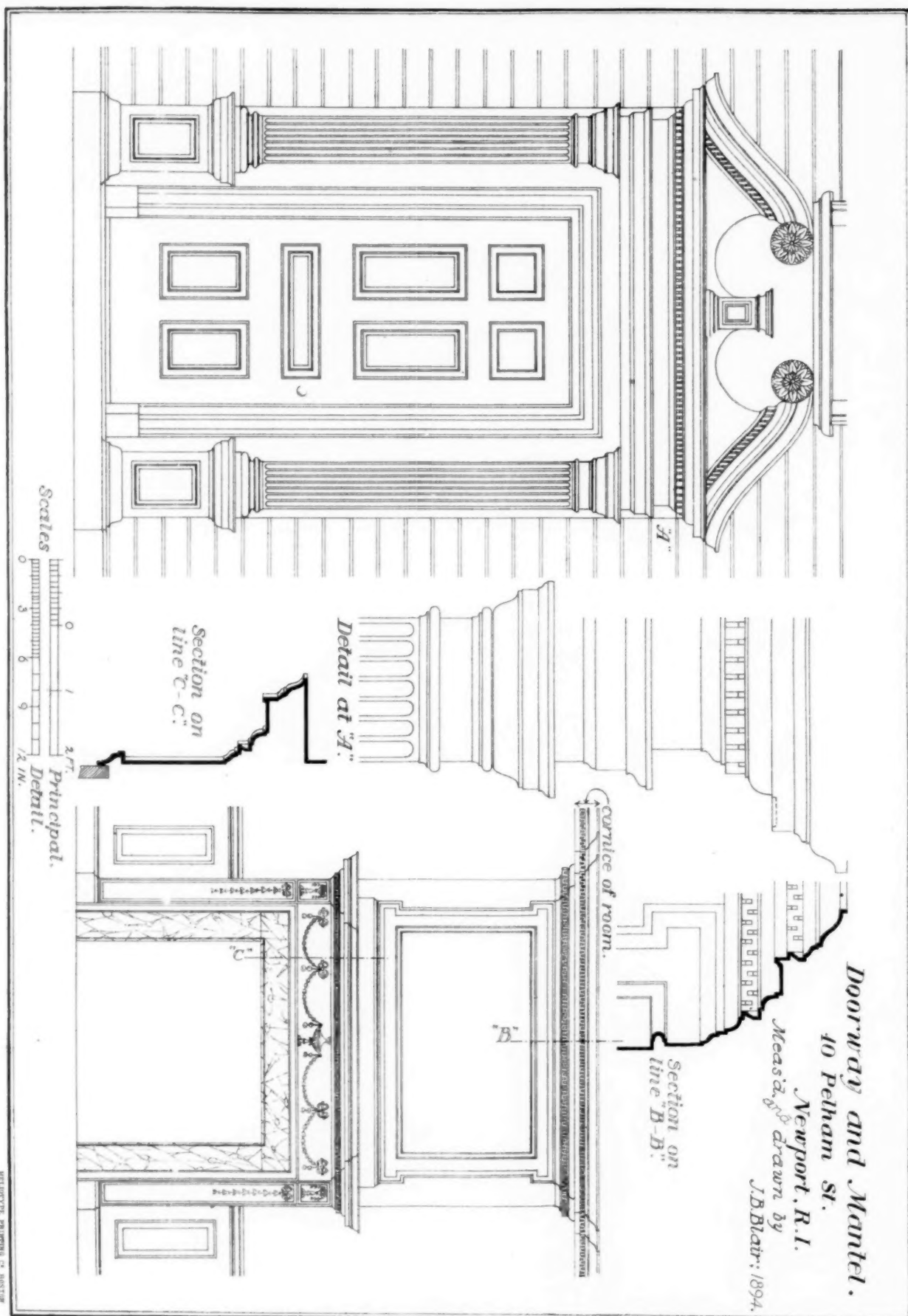
• STORES ON PORTLAND ST. BOSTON •
• MASS : JOHN A. FOX ARCHITECT •



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