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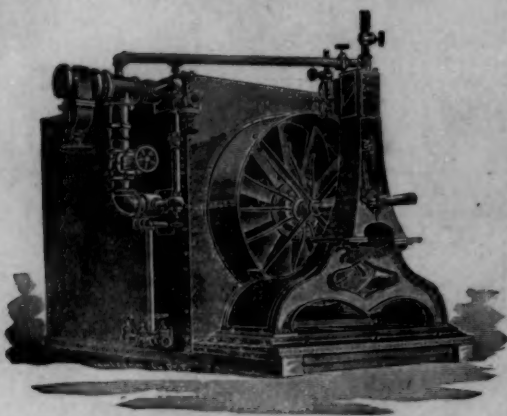
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NOVEMBER 2, 1895.



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**MR. STEVENSON CONSTABLE**, the head of the New York Building Department, is having a hard time between his own subordinates, whom he himself considers "criminally inefficient," and the architects and builders of the city, who suffer actual and serious damage from the slowness and inefficiency with which the work of the Department is carried on, and who, naturally, hold Mr. Constable responsible for it. The latter, as his side of the matter, represents that the duties of the Department cannot be adequately fulfilled unless the appropriation for carrying it on is nearly doubled, while the architects, without knowing who is to blame, insist that the present practice, of keeping plans four or five months in the Department before they are acted upon, should be changed forthwith. Meanwhile, the Mayor, who is not likely to have any ideas of his own as to the means for remedying the trouble, and who gets no light on the subject from the experts themselves, except in the form of a proposition to spend a thousand dollars a day on the Department, very naturally hesitates to take any decided step.

**SO** far as the architects are concerned, it seems to us that the best course would be, now that Mr. Constable has shown where much of the trouble lies, to come to his support. There is no question that he is the best-equipped man who has, for many years, at least, been placed at the head of the Department; and, as an honest, conscientious and highly-trained professional man, he is entitled to the loyal support of all the other members of his profession. For the delays in the consideration of plans, no one really thinks him personally responsible, except in the more rigid and scientific criticisms which he undoubtedly insists on having applied to them by his subordinates; and this sort of criticism is, in the end, advantageous to the architects. That it is annoying to have to wait one's turn for criticism is evident, but the remedy for this is an increase in the force of expert examiners, rather than a return to the old ways of having plans passed with superficial or ignorant examination, or with none at all.

**MR. J. H. CHAPMAN**, a well-known architect of Boston, and senior member of the firm of Chapman & Frazer, died suddenly at Fredericksburg, Va., a few days ago. Mr. Chapman was born in New York, and was a graduate of Yale College. He studied in the Sheffield Scientific School, and in the Royal Academy at Stuttgart, Germany, receiving his practical training in the office of Ware & Van Brunt, in Boston. In connection with Mr. Frazer, he carried out

many fine dwellings about Boston, together with the Merchants' Bank Building, at New Bedford, the Concord High School and the Episcopal Church in the same town, and the State Armory at Nashua, N. H.

**THE** Sixty-fifth Annual Exhibition of the Pennsylvania Academy of the Fine Arts will open on Monday, December 23, next, and close on Saturday, February 22. The Architectural Section will close February 1. Works in oil-painting, water-color, sculpture, architectural design, mural decoration, drawing, etching, engraving, stained glass, etc., will be received, and must be entered on blanks which will be furnished for the purpose, on or before Saturday, November 23, 1895, and delivered before Saturday, December 7. Collections will be made free of expense, in New York, Boston and Philadelphia, and will be returned, prepaid, to contributors in those cities. By the generosity of Mr. William L. Elkins, of Philadelphia, the Academy is enabled to offer, in connection with the exhibition, a prize of five thousand dollars, for the best picture by an American painter, not publicly exhibited previous to 1895, or, at the option of the jury, two prizes, one of three thousand, and the other of two thousand dollars, for the best two pictures. Works competing for this prize must be specifically entered, and the entry must state the price of the picture, at which Mr. Elkins is to have the privilege of purchasing any of the competing works, at any time within twenty days after the jury has made its award. The Temple, Lippincott and Smith prizes, and the Academy gold medal, will also be given as usual. Circulars may be obtained from the Secretary of the Pennsylvania Academy of the Fine Arts, Philadelphia.

**SAN FRANCISCO** is said to be suffering from its cemeteries, which are, as it happens, now placed on hills, to the windward of the main portion of the city, in such a position that the trade-winds from the Pacific, which blow for two months of the year, bring down among the living whatever miasm may rise from the sepulchres of the dead. A large school-house, situated near one of the cemeteries, was recently closed, on account of the repeated outbreaks of diphtheria among the pupils, and some of the physicians of the city attribute these as well as the other troubles from zymotic diseases, to the air from the graveyards. We do not remember having heard diphtheria before attributed to cemetery exhalations, but it is quite possible that it might be caused by them, and the people of the city are quite justified in urging, as they are now doing, the prohibition of further interments within the city limits, and even the removal of the bodies from the cemeteries already existing. Although the latter would be a rather serious undertaking, it is not likely that diphtheria will diminish much until it is accomplished. Few people have any idea of the time during which noxious and corrupting substances, buried in the ground beyond the reach of the nitrifying microbe, will continue to saturate the earth, and the surrounding atmosphere, with foul vapors. It is commonly assumed that within a few months, or a few years, at the utmost, the products of decomposition are absorbed by the soil, and converted into harmless inorganic substances; but Professor Lanciani tells us that under his direction, trenches were dug in the gardens of Mæcenas, which were made about the year 40 B. C. by filling-in twenty-five feet of clean soil over an old cemetery on the Esquiline hill in Rome. The cemetery had long been a nuisance and danger to that part of the city, and Mæcenas earned the gratitude of his contemporaries by buying it, and covering it up. Nevertheless, after two thousand years of disuse, and exposure to such purification as a good covering of clean soil could effect in it, Lanciani found it necessary, when his men had reached the bottom of the earth-filling, and exposed the ancient surface, to relieve them at short intervals, in order that they might escape suffocation from the horrible stench which proceeded from the remains of the people whose bodies were laid there long before the Christian era.

**THE** well-known Fairbanks house, at Dedham, Mass., which was built about 1636, and is, therefore, one of the oldest houses in the country, was recently offered for sale by its present owner, Miss Rebecca Fairbanks, but was promptly

secured by a public-spirited citizen, Mr. John Crowley, who has arranged to turn it over to the Dedham Historical Society. The house itself, which we illustrated some years ago, is an unpretentious structure, prettily situated in a group of old elm trees; but a house that was built ninety-six years before George Washington was born is a curiosity, even in New England, and it is the object of much local interest. As the estate had been in the hands of one family for two hundred and sixty years, small objects of much historical interest had been accumulated in it; and it is hoped that these may pass, with the house, into the hands of the Historical Society.

*LE GÉNIE CIVIL* comes to us in mourning for the late M. Pasteur, of whom it gives a very interesting and sympathetic biographical sketch, by M. Charles Talansier. Every one knows the principal features of Pasteur's career, but M. Talansier adds many details. It seems that Pasteur, who was an enthusiastic and learned chemist, was engaged, at the age of thirty-two, as professor at Lille. In thinking in what direction he could make his work most valuable to his new employers, he reflected that Lille was the centre of a great brewing and distilling business, and decided that an investigation into the obscure subject of fermentation would be, perhaps, more likely than anything else to be of service to this interest. It was in this way that his attention was drawn to inquiries, which he continued to pursue after his removal from Lille, which occurred a few years later, and which led him to discoveries which have made his name immortal. On his return from Lille to Paris, he was made professor of geology, physics and chemistry in the School of Fine Arts, and director of scientific studies in the Normal School. His discoveries in regard to ferments and fermentation were, however, already noted among scientific men, and, in 1865, the great chemist, Dumas, persuaded him to establish himself for a time in the South of France, to study on the spot the "pébrine," or silk-worm disease, which threatened to ruin the principal industry of several districts. After years of labor, he satisfied himself that the pébrine, as well as another disease of silk-worm, known as "flacherie," was due to a microscopic organism, belonging to the class now known under the name of bacteria; and, by studying the growth of this organism, he ascertained that it was transmitted through the eggs of the insect. He published the results of his investigations and showed how the infected eggs in a brood could be distinguished by the microscope, and destroyed, leaving only the sound eggs for propagation. This mode of escaping the disease proved completely successful, and the silk-raising districts soon regained their prosperity.

IN everything that he did, Pasteur's passion was for utility. Whether he investigated the fermentation of beer, or the diseases of silk-worms, or the grape-vine blight, or hydrophobia, he thought immediately of some way of making his discoveries practically useful. In the early days of his study of fermentation, he ascertained that the microbes which cause injurious changes in beer were destroyed by a temperature of about 140° Fahrenheit; and he recommended that to prevent beer from becoming sour, or acquiring a bad taste, the must should be cooled out of contact with air, or the bottles, after filling with beer, raised to a temperature which would destroy the ferments. His advice was followed by brewers, with such success that bottled-beer is now subjected, on an immense scale, to this process, which is known in the breweries, all over Europe and America, as "Pasteurization." The ardor with which the studies of the great chemist had been pursued in the silk-worm district brought on an attack of apoplexy. He was then only forty-six years old, and he recovered from the disease, but he was for two months entirely paralyzed, and never recovered the full use of his limbs. This mishap did not, however, interrupt seriously his noble career. As soon as he had strength for study, he began the investigation of the "chicken-cholera" disease, which he soon found to be produced by a microbe. This microbe he succeeded in isolating, and cultivating; and, in some way, it seems to have occurred to him that the cultivated microbe might be used for preventive inoculation, just as the small-pox virus, attenuated in certain ways, serves to protect against the original disease. His experiments were completely successful, and the attenuated cholera microbe, used for inoculation, protected the chickens

inoculated with it from subsequent infection, and even from the effects of inoculation with the virus of normal strength. It was, however, to men, not chickens, that Pasteur wished his work to be of service, and he soon began to apply the knowledge that he had gained with the chicken-cholera virus to one of the most terrible of all infectious diseases, the "carbuncle" of sheep, which not only decimates the flocks in certain localities, but infects and kills the shepherds. The microbe of the carbuncle was soon discovered, and cultivated and attenuated, as that of the chicken-disease had been, and used for inoculation in the same manner, and with similar results. During all this time, Pasteur's discoveries had been attacked and derided by various persons, and, whether by chance or design, the carbuncle investigation gave him an opportunity for a striking demonstration of the truth of his assertions. The Agricultural Society of Melun, which was greatly interested in his work, offered to supply him with material for a public trial, and he accepted. Fifty sheep and ten cows were placed at his disposal. Twenty-five of the sheep, and six of the cows, were twice vaccinated with the attenuated virus of carbuncle. About three weeks later, when the vaccination should have accomplished its work, all the sheep and cows were inoculated with the carbuncle virus in its full strength. Pasteur predicted that the vaccinated animals would not be affected by the inoculation, and that all the sheep which had not been vaccinated would die. Two days after the inoculation, more than two hundred people visited the farm, to see if the predictions had been fulfilled. They found, of the twenty-five unvaccinated sheep, twenty-two already dead with carbuncle, and two dying; the last died the same evening. The unvaccinated cows were all sick with an intense fever, and could not eat. All the animals that had been vaccinated were in perfect health, and peacefully feeding in their pasture. This experiment created great enthusiasm. A veterinary surgeon, who had doubted the reality of Pasteur's discoveries, insisted on having himself vaccinated for carbuncle; and many others of his profession, who had been incredulous, became warm advocates of the new treatment, so that, at present, hundreds of thousands of sheep and other animals are brought every year for vaccination. The next subject of Pasteur's investigations was hydrophobia, and every one knows the results to which his experiments led. He seems, himself, to have regarded his method of treating this disease as his most important work, and the "Institut Pasteur," in which the treatment is administered in Paris, became the scene of all his later labors, and is now, by his own desire, the place of his burial.

**D**R. SCHWEINFURTH writes to the *Zeitschrift für Aegyptische Sprache*, complaining of the reckless way in which exploration for antiquities is now carried on in Egypt. As he says, the country is being ransacked to find striking objects to attract visitors to the Gizeh Museum, while articles of modest appearance are thrown aside by the ignorant natives who are often employed to make the excavations, and who, it is needless to say, have not the faintest notion of the importance of keeping the articles discovered together, or of recording the positions and relations in which they are found. In this way, as he says, seeds of plants, and stones of fruits, found in the tombs, which might cast light on the early history and the commercial relations of the Egyptians, are irretrievably lost. It seems to be impossible to secure scientific supervision of operations carried on so extensively as are now the explorations in Egypt; and he thinks that the only way to prevent the loss of much valuable material is for the Gizeh Museum to stop excavating on its own account for the present, and devote itself to the supervision of the work carried on as a pecuniary speculation by dealers, and to the preservation of existing monuments.

**T**HE severe storm which visited Southeastern Massachusetts a week or two ago caused some damage to buildings. In Woonsocket, an old mill, built in 1840, and occupied by the Woonsocket Electric Machine and Power Company, was undermined by the overflow of the flume which ran through it, and a portion of the rear wall fell, causing a loss of about five thousand dollars. In Pawtucket, near by, a portion of an interior wall of the new High School, which had been carried up a story above the exterior walls, was blown down, causing a little damage.

THEATRES.<sup>1</sup>—XXII.

## EXETER THEATRE.



Plan of Exeter Theatre.

THE last great fatality in theatre fires which occurred in England was the historical Exeter fire. The architects who were selected to design the building to succeed the one thus destroyed were the firm of Messrs. Darbyshire & Smith of Manchester.

Mr. Alfred Darbyshire, F. S. A., F. R. I. B. A., of that firm, has placed at my disposal the drawings of this building and he has also furnished me with some notes of his upon theatre construction and planning. It is particularly interesting to follow the reasoning in the mind of the architect when examining and dealing with his designs. I shall therefore, prior to my detailed description of the Exeter Theatre, refer at some length to Mr. Darbyshire's own words.

After describing the particular circumstances which governed the planning of the theatres of the ancients, he points out that the pantomimes and dramas of those days did not require thousands of artificial lights and other dangerous and sensational aids of the modern stage, and that hence the safety of human life did not constitute an element in the construction of gladiatorial arenas or theatrical auditoria. It is patent to all that this class of building amongst the present generation of architects presents a problem with which the antique builder had not to grapple and the solution of which is only now receiving the anxious attention of theatre designers and of those public authorities in whose hands the future safety of the public lies.

Dramatic representation necessitates a building of two separate and distinct parts, one for the audience—the auditorium—and the other for the performers—the stage.

This division has existed from the earliest times of dramatic entertainment. It was found in the theatres of the Greeks, although the "Chorus" was located in the auditorium, and it was realized in the first theatre of the Romans built by Pompey, and in the Great

during conflagration. At Exeter the poor creatures sitting in the gallery never left their seats, for when the cloud of poison burst from the stage it instantly ascended, enveloped them and left them still sitting as at the play, but so many rows of ghastly corpses, instead of the merry human beings who had shortly before entered that theatre full of health and strength.

This awful episode in the Exeter fire has taught us many lessons; it has given us certain knowledge in theatre fires. The initial condition of theatre planning is that in the future these buildings must stand completely isolated from other property and if suitable sites cannot be obtained, then Mr. Darbyshire says, let us hope that the controlling authorities will prohibit the building. It will easily be seen that this condition of isolation will enable an audience to escape from all sides of an auditorium.

The second condition of importance, put forth by this authority, is that the stage shall be instantly isolated from the auditorium by the closing of the proscenium-opening. All fires originating on the stages must have their asphyxiating fumes confined to the place of their origin.

The third condition is that the highest point accessible by an audience should be as near to the streets as possible, and no seats should be higher than the proscenium-opening. This is only necessary in case the means of stage isolation should fail.

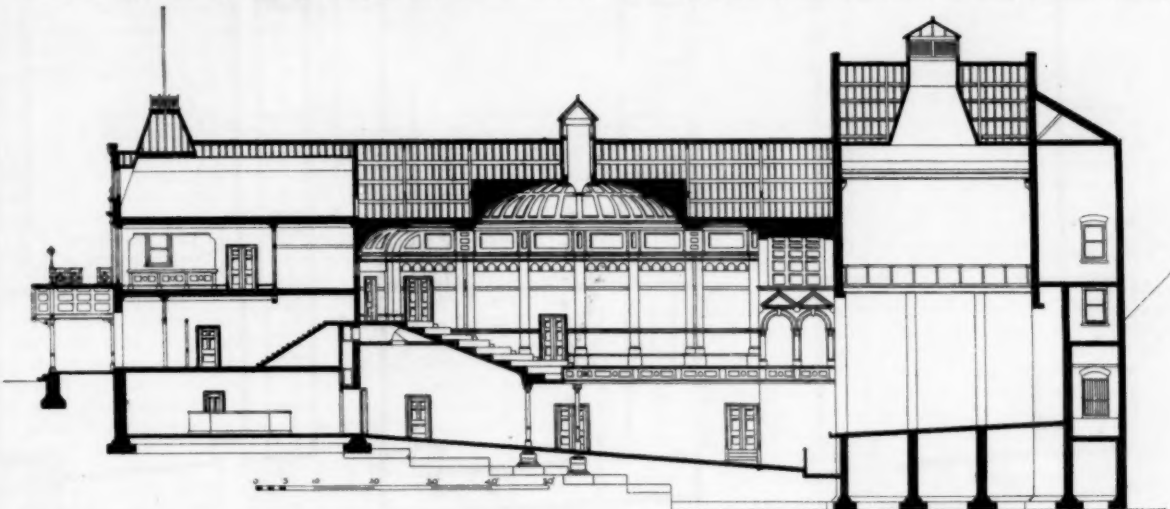
Fourthly, every part of the house should be provided with two exits, communicating separately and directly with the streets, and having no openings in them except at the top and bottom.

Mr. Darbyshire advocates, as a fifth condition, that a fireproof roof should be provided for the stage, with a large smoke-shaft glazed and louvred. In case of fire, the proscenium-opening being closed, both flame and smoke will at once make for this shaft.

The sixth condition is that every space upon which the human foot is planted in the auditorium and escape-staircases, must be absolutely fireproof and unburnable.

The foregoing conditions apply to the safety of the public, but it is quite possible to equally provide for the safety of the artists and persons employed in the theatre.

It is remarked by this architect that many persons will say that



Theatre of Marcellus, the ruins of which are still to be seen in the city of the Seven Hills.

The difference between the amphitheatre and the theatre must be borne in mind: in the former the performers occupied a central arena round which the seats for spectators rose, tier above tier; in the theatre the performers occupied one end, or side, of the edifice, the seats being raised as before, but in a semi-circle in order that the spectators might face the actors, and as it was necessary both to see the facial expression and to hear the voices of the performers, the theatre was of much smaller dimensions than the amphitheatre.

Now the planning of the ancient theatre, as far as regards the relative positions of stage and auditorium, has been carried out in modern theatres, the difference being that the audience are placed on several galleries, one above another, instead of on one continuous gallery. It is evident that by this arrangement the occupants of the second, third or fourth galleries are seated at a considerable height from the ground, hence the difficulty of escape from the theatre in case of fire, and hence the awful unrehearsed tragedy too often enacted in modern theatres.

The lamentable disasters which have happened both in Continental and English theatres have aroused a painful interest in this class of buildings, and much thought has been devoted to what may be called safety planning.

To many persons who have not looked into this matter, it may be a surprise, says Mr. Darbyshire, to be told that the loss of life in a fire panic is not owing to fire or to actual contact with flame, but to asphyxiation or suffocation by inhaling the poisonous gases given off

these conditions will constitute a mere and impracticable theory. To such an allegation he asserts that "They have now become actual facts. . . . When called in to rebuild the theatre, at Exeter," he goes on to say, "it was with some fear and trembling that I undertook the task. The grand old city had received a shock, and its inhabitants were still in mourning over a disaster which seemed destined to hang over them like the shadow of death. Thanks, however, to the determination and energy of those interested, I was permitted to carry out the safety plan, which I had worked out at the suggestion of my friend, Henry Irving, with the result that the good people of Exeter go to their theatre with the utmost confidence and with the certain knowledge that they cannot be destroyed."

It will be interesting, after these expressions of Mr. Darbyshire's views upon this subject, to follow Mr. Irving and Mr. Darbyshire's scheme for the safety theatre which has been mentioned above and which formed the model for the house which is the subject of my illustrations.

The plan for this scheme was formed upon the assumption that an isolated site could be obtained, but if circumstance made the acquisition of such a site impracticable, then the area devoted to the theatre proper would have to be reduced, so as to secure carriage-ways all around, or, at all events, ample room for the people to disperse when coming out of the house. External balconies over these avenues were contemplated, affording additional refuges for the occupants of the dress and upper circles.

The building would be only one-story high; the lofty gallery would disappear, and the people paying gallery prices be placed on the ground-floor behind the pit, in front of which would be the stalls. Although the gallery people would be thus placed at a distance from

<sup>1</sup> Continued from No. 1032, page 8.

the stage, they would view the scene without looking down upon the heads of the performers. This view would be obtained by raising the balcony sufficiently high to allow the persons at the back of the pit to be on a line of sight with the stage, so as to command from one to two-thirds of the proscenium-opening.

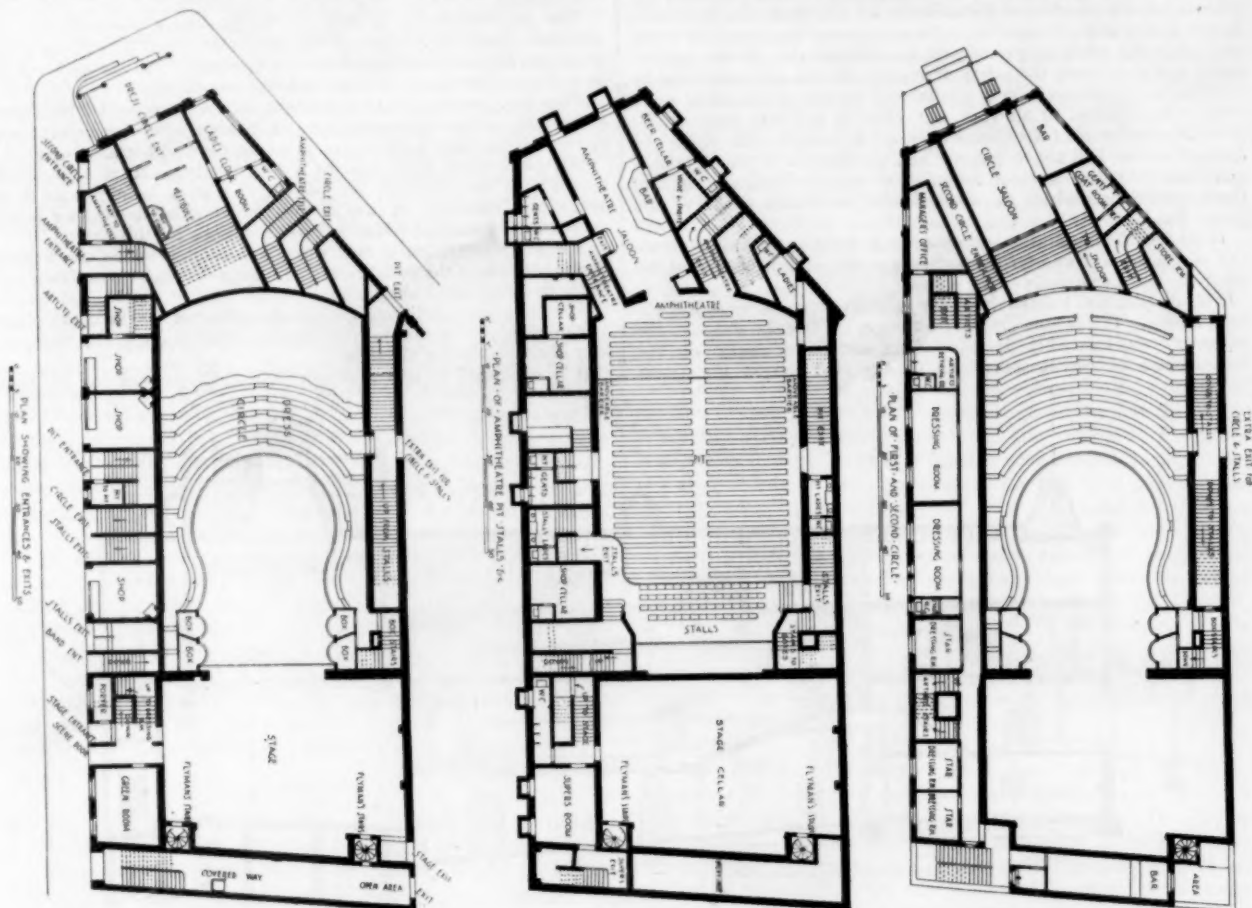
The single story of the theatre in this scheme would be devoted to the dress and upper circles, which would be reached by straight staircases communicating directly with the street, and attaining no more at their utmost height than twenty-four feet from the ground. The facility of access and egress that would be thus provided seems all that could be desired, both in extent and directness. There would be no openings in any staircase except the direct one from the auditorium.

The seats in the "safety" scheme would be all arranged on the segments of a circle and divided longitudinally and transversely by gangways three feet wide. The dress-circle and upper circle, which would be placed on the same tier behind the dress-circle, would each have an entrance and an exit staircase on opposite sides of the

opposite side of the auditory into the street. The pit has an entrance on one side, an exit on the other, while the back-pit, or amphitheatre, is similarly provided with means of ingress and egress. The upper circle entrance and the two separate exits are placed in the same manner in either of the side streets.

It seems a pity that in the side of the theatre facing Longbrooke Street, that part of the site has been taken up with shops, although ample exits appear to have been provided, yet, to dovetail shops in between such exits cannot be commended, for should a fire occur in any one of the shops, some of the smoke therefrom would be sure to find its way into the exit passages and staircases and perhaps cause alarm. A theatre is better when it is an entire building of itself, with no added risks whatever. It is the more surprising to find shops in this case when Mr. Darbyshire's views on theatre planning have been ascertained to be so well founded.

Over these shops and over the various exits extend for nearly the full length of Longbrooke Street, the dressing-rooms on the first floor. There are separate entrances for the stage, the musicians



building. Corresponding provision would be made for the occupants of the ground floor.

There would be no fireplaces, hot-air flues being used for warming purposes. The illuminating power would be solely by electricity, and the proscenium-opening would be closed by an asbestos curtain.

Having now seen what the architect proposes in theory, and having heard his views, let us examine what he has done in practice to carry out such theory and views in the rebuilding of the Exeter Theatre.

The Exeter Theatre is on an isolated site. The auditorium consists of one tier only above the pit, which latter is sunk below the level of the street, so that the highest seat in the house is only fourteen steps above the street-level, and the seats at the back of the pit are but ten feet below the pavement.

The seats on the area-level are divided in accordance with the Irving-Darbyshire scheme into stalls, pit and back-pit seats, or, as they are called on the plans, amphitheatre, while the tier consists of dress-circle and upper circle.

The circle comprises ten rows of seats, the back row being, as I have said, fourteen steps above the street, but the exit on one side is only five steps higher than the public thoroughfare. The stalls are entered from the main-entrance vestibule and approached by two flights of steps, the number of steps in the lower flight being rather many, but the same objection to a crowd rushing up stairs does not exist as that to a crowd going down stairs, for, in the latter case, they are more likely to fall and block up the exit with a human barrier. There is not the same risk in people ascending a staircase.

In addition to the stalls-entrance, there are two direct exits on the

and the scenery at the side of the stage, and an additional exit staircase from the dressing-rooms at the end farthest from the stage. The supers, the flymen and the scene-painters are all provided with means of escape by stairs at the far end of the building.

The saloon, offices, cloak-rooms, etc., are situated in the front over the entrance vestibule.

The following are some of the leading dimensions scaled from the drawings:

|                                                        |          |
|--------------------------------------------------------|----------|
| Width between walls of auditorium.....                 | 44 feet. |
| Depth from curtain line to back wall of auditorium.... | 82 "     |
| Depth from curtain line to circle front.....           | 48 "     |
| Height from pit floor to crown of dome.....            | 46 "     |
| Width of proscenium-opening.....                       | 25 "     |
| Height of proscenium-opening.....                      | 25 "     |
| Width between walls of stage.....                      | 52 "     |
| Depth of stage.....                                    | 37 "     |
| Height from stage to gridiron.....                     | 44 "     |

E. A. E. WOODROW.

[To be continued.]

ST. SAVIOR'S CHURCH, MOSCOW.—The Temple of St. Savior, completed in 1883, cost some ten millions of dollars, and holds seven thousand people. It has four belfries, each with a golden cupola, and over all a central dome ninety-eight feet in diameter. It stands in a great square with beautiful gardens of flowers on each side. It is entered by granite steps, under a porch supported by thirty marble columns, and over one of the bronzed doors, rich and elaborate, is the inscription, "God with us." The inside is far more light, airy and cheerful than St. Isaac's, its services equally if not more imposing, its priests, if possible, more gorgeously apparelled.—The Congregationalist.

RICHARD MORRIS HUNT.<sup>1</sup>

the request of those whose wishes I am bound to respect, the honorable duty of formally commemorating the life and professional career of our brother, Richard Morris Hunt, third President of the American Institute of Architects, has devolved,—unworthily, I fear,—upon me.

But, in fulfilling this duty, there is nothing to be condoned; there are no prejudices in your minds to be laboriously overcome, no facts to be ingeniously suppressed, nothing to be exaggerated or justified by the art of the rhetorician. The career which we are about to celebrate was one so open, so conspicuous, so fortunate and complete, the personality which made it possible was so candid, so vigorous, so gracious, so accomplished, that this Institute, identified with it from the beginning, is eager to welcome all that can be said in its praise. I submit to you, therefore, no perfunctory panegyric, but the unaffected impressions of a man, singularly representative of all the best qualities which can adorn an architect and a gentleman, a man to whom the profession in this country for its own sake owes a formal tribute of commemoration and acknowledgment, a man who not only won our respect and admiration for what he did, but our affection for what he was.

The Angel of Death cannot destroy a full and true life; rather does he preserve it. He confers upon it that symmetry, unity and completeness which remain with us always to quicken and inspire. He purges it of all accidental and unessential elements, and makes a visible and enduring monument of its virtues. The dread Architect has thus rounded off and made beautiful for us forever this large, brilliant and blameless career. But we, brothers in the craft which this career illustrated and adorned, heavy with a sense of a bereavement which seems irreparable, cannot but grieve that it has closed, and that the living man, whom we admired and loved, we shall no more see or hear. Irreparable, did I say? Not irreparable, so long as we continue to measure ourselves by the high standard of professional conduct which he established, so long as the spirit of serious and tranquil beauty which pervaded his works shall continue to exercise prolific power in the architecture of the New World. For it is the greatest felicity of the masters that what was best in them enjoys blessed immortality in their works and remains to keep alive the divine fire of art.

Those rare qualities in the master whom we now commemorate, which created that peculiar personal affection of which I have spoken, can hardly be made real to those who never came in contact with him; but the genius and training of the man, which expressed themselves in concrete form, can perhaps be so celebrated that those who follow us may, like ourselves, light their torches at his shrine. We, who have been near to Hunt, find it difficult to separate the man from his works. To us they together constitute a unity so full of distinction and character, so pervaded and inspired by art, that no history of the development of our architecture in the latter half of the nineteenth century would be possible without a recognition of it as one of its most potent factors.

One of the wisest of men has said that there is something even in the most obscure and humble life, which, if it could be revealed, would be of the utmost interest and value to all mankind. Surely, in the noble and conspicuous life which we are now considering it should not be difficult to uncover this precious germ.

I shall not here attempt a detailed biography of Richard Morris Hunt with all the dates, all the incidents, accidents, honors and accomplishments of his varied career, though the necessity for such a fulness of record is already keenly felt and doubtless will be duly satisfied while the memory of them is yet green and fragrant in the great household of his friends. In the brief time at my disposal I shall only try to account for those qualities in the man which made him dear to us, and which are necessary to be commemorated by this Institute as a part of the history of contemporary architecture.

He was born at Brattleboro, Vermont, October 31, 1828. He died at Newport, Rhode Island, July 31, 1895. In three months more the full measure of his life would have been sixty-seven years. He was the fourth of the five children of the Hon. Jonathan Hunt and of his wife, Jane Maria Leavitt, both descended from old New England stock. His father, a gentleman of ample means and high consideration in Vermont, represented that Commonwealth in Congress from 1827 to 1832, and died in Washington while in the public service. The education and training of the young children thus fell into the hands of the maternal grandmother, whose gentle influence was all for sweetness and light, and of the mother, who, fortunately for them, fortunately, indeed, for the future of art in America, was a woman of high spirit, great force of character, and of accomplishments far in advance of her time. She made her own ambitious ideals the standard for them; to their best culture she devoted herself with peculiar energy and sound discretion, and her old age was crowned with their success. She lived to see two of her sons, William and Richard, *par nobile fratrum*, recognized by the civilized world as the most conspicuous and most imposing forces in the development of our national art, the one in painting, the other in architecture, and both as the most lovable and most fascinating of men.

Richard's earliest training was mainly in a private school in New

Haven, and in the public schools of Boston. But he was only fifteen years of age when the family moved to Europe and took residence in Geneva, where, following that inborn instinct for art which responds so generously to culture, he studied architecture and drawing for five years in the atelier of Samuel Darier. This experience determined his career, and in 1848 Richard confirmed it by entering the École des Beaux Arts of Paris as an *élève* in the atelier of Hector Martin Lefuel, who thus became his patron. The influence by which he has been surrounded in those happy years of pupilage, the atmosphere of generous emulation which he breathed, the ardent friendships which he formed, apparently converted this spirited American lad into a Frenchman. But beneath the gay and impulsive exterior of the Parisian, the solid good sense of his New England stock held him steady and strengthened and confirmed his artistic conscience. This was enlarged and educated by extensive travel in the East and, indeed, throughout the whole world wherever art had left a mark. Never has travel borne richer fruits or inspired a more receptive or more eager mind.

There were six of these abundant years of study and travel for the brilliant young American, and when his patron, Lefuel, was appointed to succeed Visconti as architect of the new works on the Louvre, by which Napoleon III desired to make fitting monumental record of his reign, he procured for his favorite pupil a government appointment as Inspector-of-works, and in that capacity gave him supervision over the construction of the Pavillon de la Bibliothèque. He was only twenty-six years of age when he entered upon this important duty and he amply justified the singular confidence reposed in him. There is a certain picturesque surprise in the spectacle of a Yankee lad giving form and character to one of the imperial monuments of France. Lefuel, of course, was the responsible architect of this, as of all the other new works of the palace, but, while providing for the unity of the masses of buildings composing it and for the proper maintenance of the national traditions in this great historical monument, he knew how to use the abilities of his subordinates to the best advantage in developing the details. In a letter to Mrs. Hunt, written in 1867, he said: "My greatest work was done while dear Dick worked with me, and he can justly claim a great share of its success. I do not hide from you those circumstances of which his own modesty does not permit him to speak." This semi-independent position was the opportunity which the ambition of Hunt most needed and most ardently desired. It gave him practical experience in a work illustrating on a great scale just those qualities of academic architecture most congenial to him, and it is a pleasure for us, his pupils, his friends and countrymen, to observe that the part of the new Louvre most remarkable for elegant reserve and temperance of expression in the midst of the most seductive temptations to prodigality which the resources and traditions of the national architecture could present to an enthusiastic nature like that of Hunt, is certainly the Pavillon de la Bibliothèque.

In 1855, in his twenty-seventh year, after an education and training such as no American architect had before or, indeed, has since enjoyed, Hunt returned to his native land, accredited as an ambassador of art from the abounding wealth of the Old World to the infinite possibilities of the New. Desiring to become familiar with the methods of work prevailing at home, he immediately sought and obtained employment with Thomas U. Walter, afterwards the second president of this Institute, and then architect of the Capitol extensions at Washington. After six months of this service, he returned to New York and began the independent practice of his profession.

This beginning was, as usual with all beginnings, small, uncertain and beset with disappointments. The New World was not then hospitable to such high ideals, such noble enthusiasms; as this first American thoroughbred brought with him from the schools of Paris. He found himself an exile in his own country, and, if he had not been inspired by a patriotic ardor and hopefulness which possessed his whole heart to the end, he would more than once have been tempted to listen to the ardent entreaties of his old comrades in art, who, with sympathetic affection, were eager to welcome him back to the more congenial atmosphere of the Old World. There, doubtless, he could have made for himself a great career, for the architecture of France knew that it had lost in this young aspirant, one of the most vigorous and brilliant personalities which for many years had appeared in its schools. But his natural loyalty was unshaken, and he stayed because he loved his country and because he modestly believed that, sooner or later, he could do something to direct a part of its crude but tremendous energy to the service of beauty and truth in art.

At this point began my own association with Hunt, and I trust that what I have to reveal concerning this association, and what this association revealed to me, may be the excuse for the personal element which must now enter into this brief narration.

Those of us who were fortunate enough to be placed under the immediate influence of Hunt, as his pupils, will never forget either the wealth of his resources or the inspiring nature of his instruction. These resources were placed at our disposal with a most lavish hand, and, under the vehement and strenuous manner of the master we quickly discovered the truth and tenderness of his heart. The study of architecture at that time was pursued under the most discouraging conditions. The art was ill-understood and, indeed, hardly respected by the public. There were no schools in which it was

<sup>1</sup>A Memorial Address by Mr. Henry Van Brunt, F.A.I.A., of Kansas City, Mo., delivered at the Twenty-ninth Convention of the American Institute of Architects, at St. Louis, Mo., October 15-17, 1895.

recognized as a desirable subject for study. There were but few books available and our traditions were eminently provincial. Examples of good work were so rare that our ideals of perfection were incoherent and doubtful, and were swayed, now in one direction and now in another, by the literary warfare then prevailing between Gothic and Classic camps. Medievalism was sustaining itself by the religious ardor of Pugin and the brilliant rhetoric and poetic imagery of Ruskin. Sentiment was keenly aroused, but discipline was silent. But, though the atmosphere was thick with prejudice and controversy, there was an intellectual movement in the midst of it exceedingly attractive to young men of education and artistic instincts.

In the autumn of 1858, three earnest aspirants for architectural knowledge applied to Hunt, who had then just completed the Tenth Street Studio Building in New York, to take one of the studios himself and install them there as his pupils. One of these applicants, our present honored vice-president, Geo. B. Post, had just graduated from the Engineering School of the New York University; the other two were Charles D. Gambrill and myself, who, since their graduation at Harvard four years before, had been pursuing the study of architecture under the somewhat discouraging conditions which then prevailed.

It is due to our dear comrade Gambrill to state here, as a part of this story, that subsequently he entered into two successive partnerships, one with Post and one with Richardson, and that his untimely death, interrupting a career of singular promise, was a loss, not to his friends only, but to the architecture of America.

With the noble generosity of the true artist, Hunt granted our request and equipped one of the studios for our use. Early in the following year we were joined by Wm. R. Ware, now one of the most honored and best beloved names in the history of American architecture, and subsequently by Frank Furness, our comrade from Philadelphia, and by Edmund Quincy and E. L. Hyde, who never practised our art. Thus we together entered upon an era so rich, so full of surprise and delight that it seems as we look back upon it, as if once more in the world the joy of the Renaissance, the white light of knowledge, had broken in upon the superstitions of romance. To us it was a revelation and an enlargement of vision so sudden and complete that the few years spent by us in that stimulating atmosphere were the most memorable and eventful in life. But it the disciples were glad to learn, the master was generous to teach.

His own studio and home at that time were in the old University Building, on Washington Square. Here he lived as bachelor in spacious and lofty apartments, filled with the spoils of foreign travel. Here were carved antique cabinets, filled with bronzes, medallions, precious glass of Venice and curiosities of fine handiwork in all the arts. The walls were rich with hangings, old panels, sculptured or painted, and modern studies from the studios of Paris. These, together with medieval missals and embroideries, instruments of music, masterpieces of forged and wrought metal work and of faience, strange and costly toys of every era of civilization, brought into the great chamber the mellow atmosphere of the Old World. More than all this to us was Hunt's noble and inexhaustible library, by far the richest, most comprehensive and most curious collection of books on architecture and the other fine arts which at that time had been brought together in the New World. I doubt if even now this precious library is exceeded in some respects by any of the more modern public collections.

To these treasures the fortunate pupils were welcomed with boundless hospitality. Indeed, Hunt's attitude sometimes made us feel that he considered the labor and cost of bringing them together justified in the light which they shed upon us. For myself I can truly say that the hours spent in the gracious seclusion of that dim chamber were the most fruitful in my life. The aspect of every page, the emotions of every revelation of the world of art come back to my memory clear and distinct as I speak in gratitude and affection.

Our own workshop in the Studio Building was hung with cartoons in colors, and furnished with casts of architectural and decorative detail. Even that working-place was not without its ancient carved chimney-piece and its cabinets of tarnished gilding. Here we lived in the midst of a congenial and sympathetic brotherhood of painters and sculptors from the neighboring studios, happy Bohemians, free to come and go as we pleased. Our system of study and practice was based upon that of the *École des Beaux-Arts*, and under the powerful stimulus of the master's criticisms and under the inspiration of the atmosphere which he had created for us, our work was carried on with enthusiastic loyalty. If outside of our boundaries there seemed to be little or no recognition of architecture as a fine art, within it was not only illustrated by all the wealth of the Old World, but made living to us by the almost tempestuous zeal of the master. In such a place the most unimaginative mind could not fail to be kindled. Whatever latent powers of expression in art we might have were aroused to vigorous action. In that beautiful chamber where he lived we traversed every corner of the world of art and filled our sketch-books with the fruits of enchanted travel. But amidst all this excitement and enthusiasm, Hunt ever insisted upon the preëminent importance of academical discipline and order in design. He was most concerned that the substructure of our knowledge should be serious, sane and solid. We were instructed to make our plans on rigidly scholastic lines, and the vertical developments in the elevations we were taught to study in strict Classic

form according to the method of the French School. Respect for authority and discipline was thus inculcated, and we unlearned much of the romantic license which at that time tended to turn the practice of architecture into the hands of amateurs and virtuosos. But while he insisted on the preservation of the Classic formulas for the sake of the training of mind and hand, he heartily encouraged the study of every style in which the thought of man had expressed itself in beauty or power. His photographs, books and prints, his own drawings, gave us a large view over the whole historical field. Academic prejudices never affected the large catholicity of his mind. His criticisms of our poor attempts were pungent and severe, but so genial and picturesque that every visit left behind it not only an enduring inspiration, but an atmosphere quickened by his energy and illuminated by his inexhaustible humor. For he was as much a comrade as a master. In short, our experience was a liberal education in the fullest sense, and when we left him with our imaginations no longer sterilized by prejudice and partisanship, but enlarged and enlightened by his influence, his warm interest in our personal and professional welfare never ceased. For myself, at least, in the years that have since gone by, the fine impulse which he first gave to my life has been revived by countless unexpected offices of kindness and solicitude. Through all the vicissitudes of time and space I have felt the warmth of his generous heart.

When, more than thirty years afterwards, in 1893, several of us were summoned to act together again with him on the great national arena at Chicago, the natural dominance of the master again asserted itself without pretension and we once more became his willing and happy pupils. To this instinct of family loyalty in art, through which all the trained intelligences then called together became close kindred, to this ideal relationship of mutual interest and affection, may be attributed in no small measure the majestic unity of the Court of Honor.

When, therefore, the Royal Institute of British Architects gave to Hunt its gold medal of 1893, it honored the man, who, more than any other, had by personal force and high training secured for the architecture of our time and country a standing adequate at last to represent our civilization in terms of art. We recognize the justice of this great distinction less because of any single achievement of his than because we feel and know that our profession has worked upon a higher plane of endeavor and has received from the public a greater respect and consideration since this man began his noble career among us. The American Institute of Architects and, indeed, the whole profession, were honored in the honor conferred upon him. For the vitalizing and enchanting personality which impressed itself upon his immediate pupils and, through them, upon his pupils' pupils in ever widening circles of beneficent influence, invigorated and enlivened also the first years of this Institute. The battle of the styles was then, as I have already intimated, waged all over the architectural field, and it must be confessed, the earliest discussions of this Institute were ensanguined by the great dispute. Hunt, with all the martial gallantry of his nature, inspired the Classic camp with ardor. The Gothic side was championed by the strongest and best equipped men in the profession. The whole historic arsenal was ransacked for weapons on both sides, and the controversy was carried on with such heat and was so engrossing that finally a vote was passed (I think it will be found in the archives) excluding this dangerous subject from the discussions of the Institute. It will be readily understood that in these animated disputes the pupils of Hunt, whose names you will see on the first lists of the Institute, where they were written thirty-seven long years ago as associates, followed the white plume of Navarre, and, inspired by him, with rash zeal dared to measure their maiden weapons with those of the oldest and most experienced warriors on the other side, men who were doing work, which, though our art has since immensely enlarged its scope and exalted its ideals, still holds a high place and has already become, if not venerable, at least historic. But when the smoke of battle cleared away, it would be found that the wounds were not deep and that good fellowship had suffered but little strain.

Indeed, in this respect, it would be difficult to exaggerate the change immediately effected by the establishment of the Institute in the personal and professional relationships of its members; and in this beneficent work Hunt's influence was preëminent. Before this establishment community of thought, mutual friendship hardly existed among architects. The hand of each was turned with jealousy and suspicion against his brother. His processes of design and his business methods were personal secrets. Each concealed his drawings from the rest as if they were pages of a private diary. Even books and prints were carefully secluded from inspection by any rival. Pupils were apprentices, and, as in my own case, often looked with eager and unsatisfied eyes through the glass of their master's locked bookcases. There were no ethics of practice, no common ground of mutual protection, no unity of action or thought, no national literature of architecture. The current professional periodicals of England and Germany furnished the sole inspiration of nearly every architectural office in the land. Our work was a dim reflection of the fashions of our British contemporaries, and, in our architecture we still remained a dependent province of the mother country. Every conspicuous note which was blown on the other side of the Atlantic had futile and barren echoes in our own land.

When the first American graduate of the French School of Fine Arts appeared upon this scene of narrow architectural subservency,

of professional confusion and doubt, the conditions were ripe for change. The formation of the American Institute of Architects was not intentionally but practically a new Declaration of Independence, in which the ardor of Hunt, crowned as he was with the approval of the highest architectural authority in the Old World, played the part of the big signature of John Hancock. I trust I do not underrate whatever other conditions conduced to this most memorable emancipation, but, in my own mind, among them all, Hunt's influence was the most potent. I feel sure that the union and brotherhood of professional interests which then manifested itself for the first time on this continent, and the strength which came from that union and brotherhood—the strength with which you now, my brothers, are strong and independent, the strength which has made you Americans in art as in politics—may in no small degree be attributed to the man, who, at the most critical moment in the development of our national architecture, proved by his example that the most rigid discipline and highest culture which could be furnished by the Old World was not inconsistent with the most aggressive and uncompromising patriotism. He brought back from the School of Fine Arts in Paris, not merely a collection of venerable formulas and academic prejudices to make us still more dependent, but a spirit enlarged, enlightened, cosmopolitan. Under this vigorous and wholesome influence, his children in art and his children's children, who in prolific generation have multiplied so as to constitute, I verily believe, the representative majority of this Institute, ceased to be provincial and became national. Thus in respect and affection we are celebrating the career and services of one who, though but little older in years than some of us, has proved his right to be called one of the fathers of American architecture.

It is needless to repeat here the long and brilliant list of his works, which include some of the most interesting monuments of our time. We all know them well, and all of us more or less consciously have gathered strength and inspiration from them. But we cannot cease to regret that the noble powers, so admirably fitted for the expression of the grandiose, the magnificent in our art, should have had their principal field, not in our national monuments, which his hand would have made worthy of our civilization, and a quickening impulse in our national art, but in decorating the superb privacies of the Vanderbilts and Goeleys, the Marquands and Astors, the Belmonts and the Gerrys. Concealed behind the guarded hospitalities of these generous patrons of architecture, the studied proportion, the lovely details, the monumental beauty of Hunt's interior work are doing profitable service in the cause of a higher culture and a nobler civilization. But private work cannot be recognized as expressive of national refinement and national progress. Hunt's latest years, as you all know, when he was suffering from cruel bodily distress, were largely spent in aiding the Institute in its patriotic endeavor to bring our government to a realizing sense of its responsibilities to art. To this noble effort he devoted himself with loyal energy, and much that our cause has already won in Washington is due to his personal influence and to the magnetic charm of his sincerity and zeal. Hearts, most inaccessible to the silent appeals of beauty and grace in art, were won at last to respect the cause which had for its advocate a man so irresistible in his vitality and so unique and charming in his presence.

But while, with the exception of two buildings at West Point and the National Observatory at Washington, no commissions of national importance and no official honors came to him from the government of his native land, he received from foreign countries recognition such as no other American has enjoyed.

On the 25th of November, 1882, he was made Honorary and Corresponding Member of the Académie des Beaux-Arts of the Institute of France.

On the 29th of July, 1884, he was decorated as Chevalier of the Legion of Honor, the "demande" being supported by such great names as Baudry, Bouguereau, Ambroise Thomas, Ch. Garnier, Ballu, Bonnat and Falguière.

On the 26th of January, 1886, he was made member of the Société Centrale des Architectes Française.

On the 1st of February, 1886, he became honorary and corresponding member of the Royal Institute of British Architects.

On the 12th of April, 1887, he received similar recognition from the Society of Engineers and Architects in Vienna.

On the 29th of June, 1892, he received the degree of LL. D. from Harvard University, the first honor of the kind ever bestowed on an architect, and one which he especially cherished as coming from his native land.

On July 13, 1892, he became an academician of the Society of St. Luke, in Rome, the oldest institution devoted to art in the world.

In 1893 he received the royal gold medal of that year from the Royal Institute of British Architects, the first American thus honored.

In the same year he received, perhaps, the most distinguished honor of all in his election to fill a vacancy as associate member of the Institute of France, Franklin, I believe, being the only other American so distinguished.

And it is a pleasure to us to remember that in electing him third President of the American Institute of Architects in 1888, we also did him honor, while he, in that capacity, added to the obligations which all architects in this country are glad to acknowledge.

It is not improbable, indeed, that Hunt's professional accomplishments were even more highly appreciated abroad than at home. But the modesty of the man was so sincere, and his heart was so simple, that all these honorable distinctions, most of which, perhaps, you now hear for the first time, were received and held by him in trust as recognitions of the progress of our national art. He did not and could not associate them with his own merits. He practised his art, not for what it would return to him, but because he loved it, and "he blushed to find it fame."

The personal attributes of Hunt gave to his professional character a captivating animation, a frank sincerity, and these qualities, combined with the dignity of his bearing and his manly beauty, made him a notable individuality wherever he moved. His artistic conscience was not a mere instrument of service to be laid aside when not in use, but an active and animating principle of his life. And so he wore it with a peculiar gallantry of manner, not before his professional comrades only, but before the world. But if his manner was sometimes extravagant and impetuous when he was charged with the enthusiasm of his heart, he more often won his audience by a touch of irresistible humor, by a gaiety and *bonhomie*, which betrayed the fundamental sweetness of his nature. He loved to talk of his art among his friends, and no one was ever so prompt as he to uphold the dignity of his profession, none so generous in protecting and publishing the good work of his brethren, none so gentle and so just in criticism. But he never spared any form of vulgar pretense which threatened to debase that high ordeal which he sought to establish for our art in America, and he hated sham. Indeed, in the social world, where, because of his accomplishments he was admired, because of his honest and manly heart he was beloved, he was the knight-errant of architecture, turning indifference into respect and doubt into honor for the supreme beauty and dignity of his mistress.

As to Hunt's professional achievements, an architect in the presence of architects cannot indulge in criticisms with the freedom and confidence of judgment which are displayed by those without professional responsibilities and convictions. We are all of us too deeply committed by practice, too deeply engrossed in the evolution of our own ideals to judge them without sympathy too warm for truth, or, perhaps, without bias too strong for justice. But the practice of architecture is now no longer a bitter conflict between opposing schools, each striving for preëminence at the expense of the rest, rather a generous emulation carried on upon lines, not parallel indeed, but all tending, as we hope, towards the establishment of a consistent style adequate for our vast and complicated civilization. I venture to say that no one here will question that our late illustrious comrades, Hunt and Richardson, were the most conspicuous leaders in this large and liberal movement. They brought from the French School all its discipline, all its wholesome respect for Classic authority and academic principles, but in practice they expressed themselves with a freedom from classical restraint and scholastic subserviency, which, as it would have been well-nigh impracticable in France, must, it would seem, be accepted as the result of new conditions of life acting upon trained but receptive minds. We can already recognize the service which these minds, so influenced, are exerting in the evolution of these new local types of architecture, which, through much tribulation and infinite errors, must slowly but surely be taking shape among us. The monuments which they left behind them have been powerful agents in preventing the dangerous liberty of our art in America from degenerating into license. Unlike Richardson, Hunt did not leave upon his own work an impression of strong personality, and for that reason his leadership, though far less evident and picturesque, is far safer against the dangers of aberration among his followers. No one can follow Hunt and go far afield. He did not pretend to be inventive, or desire to be original, and the impulsive individuality, so prompt to assert itself under all other conditions, nearly disappeared behind the historic types which he used in design. He respected them too much to use them consciously as a vehicle of his own temporary moods. Only once, when captivated by the phenomenal Graeco-Romantic movement in France under Labrousse, which promised at one time to turn the whole tide of French Renaissance into new channels, did his natural vivacity of temperament betray him. This was an interesting incident in his career, and, by its singularity, it accentuates his prevailing mood of aristocratic reserve. His pencil in hand was a magic wand, which chastened the buoyancy of his imagination and made him a scholar. Thus he founded no new school. He prevailed, not as an irrepressible genius who breaks traditions, but as a guardian who respects them with the spirit not of an antiquarian but of an artist. His admiration for the great works of the past was based, not upon emotion and sentiment alone, but upon knowledge and solid conviction. He had no ingenious theories concerning the development of modern art; his methods of thought in design were not at all speculative or inventive, as would seem to be most natural to a mind so animated, a spirit so quick and eager; rather were they exact, reserved, business-like. These underlying qualities preserved him from eccentricities or experiments in architectural expression and extended to the conduct of his affairs and the discipline of his office.

He worked with great ease and pleasure to himself in modern French Renaissance, purified and chastened by Greek influence. This, as it were, was his native tongue. In his hands this style was

flexible to all the new conditions of material and use in the New World, but his characteristic use of it was rather serious and restrained than playful or expansive. It is in this respect, I believe, that his example is most valuable in the development of national style. But he left behind him also, in proof of the versatility and liberality of his mind, a series of conspicuous works, based upon the architectural expressions of an era when the art of the Middle Ages was adjusting itself with astonishing felicity to the exactions of the higher civilization and of the more refined domestic ideals of the sixteenth century. As Richardson found in the vigorous promise of the Romanesque of Auvergne a language of art, agreeable to the robust nature of his genius, and capable of new developments in the service of modern life, Hunt discovered the prolific germs of new life in the lovely domestic Gothic of Touraine, whose progress was checked by the revival of learning in the sixteenth century in France. In the luxurious and flamboyant delicacy of this style, in its elasticity and bright exuberance, in its poetic beauty and cheerfulness, he seemed to find a medium of architectural expression, congenial to his own indomitable youthfulness of heart and not inconsistent with the dignity and order of his cherished ideals.

Among his latest works the superb house of the Goelets and the interior of the beautiful pavilions of Belcourt at Newport, and, above all, the château of Biltmore in North Carolina, bear witness not only to his profound respect for authority and to his command of precedent, but to his pliability of mind, which enabled him to accommodate all the complicated conditions of modern living within the reasonable compass of the Gothic of Chambord or of Pierrefonds. Indeed, in these works, he carried the style a step further in natural development without any conscious attempt to express in it his own insistent individuality. No one who studies these beautiful compositions in plan or elevation, without or within, can fail to be impressed by the patient and conscientious elaboration of their delicate detail, and by the constant evidence of wise self-repression and reserved force.

When Hunt began his career in America, the English Gothic revival had full possession of the field, and architecture seemed to be in the hands rather of archaeological pedants than of creative artists. There was no life in it; it was never happily adjusted to modern conditions and it came to nothing. It now only survives under the protection of the English Church. But the rehabilitations which we are now considering were in the hands of intelligences, disciplined by classical studies, yet open to all the inspirations of a new life in a new world. If they were romantic in form, they were modern, they were American, in feeling. No service of the life of to-day was inconvenient or embarrassed for the sake of archaeological conformity. Hunt's experiments in romantic style, therefore, promise, if rightly used, to serve as enlargements and enrichments of the language of American architecture; they are surely not obstacles to its natural development and will not be set down as barren events in the history of our art.

His ardent solicitude for every detail and process of artisanship which contributed to the architectural symphony brought him into close contact with contractors and skilled mechanics of every calling and grade. Between the master and the workmen there arose a warm feeling of mutual respect and consideration which is the strongest possible testimony of the unaffected simplicity and sincerity of his heart, and of his ability to teach without condescension and to correct without offence. It was in affectionate recognition of these rare and gentle qualities of the master that, in completing the W. K. Vanderbilt house in New York, that delicate casket of precious architecture, the workmen, using a wisely given liberty of design in carving the finial of the highest gable, placed there the life-sized portrait figure of the architect in the garb of a fellow-workman with mallet and chisel in hand. In this way he was elected into a companionship of honorable toil, and, when he died, the family received many touching tributes of respectful sympathy from the master workmen who had enjoyed the privilege of his friendship. Among these expressions there was one from the workmen of Biltmore, embodied in a series of resolutions so significant that I venture to repeat their words:

*Whereas*, The great Architect of the Universe has in His wisdom removed our fellow-laborer, Richard M. Hunt, from this earthly mansion to a building of God, a house not made with hands, eternal in the heavens; and

*Whereas*, His fame as an artist and his devotion to and his accomplishments in his profession are known to the world, but his generosity, sympathy, and services in behalf of the worthy laboring men of all classes are only known to those whose good fortune it was to be under his immediate supervision;

*Therefore*, We who have worked under him, deeming it fitting that we record our love for and appreciation of him, have

*Resolved*, That in his death our country has lost its greatest architect, and our skilled workmen, artists and sculptors have lost a kind, considerate and constant friend; for neither his great fame nor his wealth ever caused him to be forgetful, indifferent, or careless of the rights and feelings of his fellowmen and laborers, who were aiding in an humbler way in erecting these beautiful buildings, which only marvellous genius could have imagined and planned;

*Resolved*, That to him more than any other man of our time all the representative workmen of this country are indebted for the elevation of their trades and arts to the position which they now hold in the ranks of the great army of skilled workmen.

*Resolved*, That we tender his afflicted family our deepest sympathy and that a copy of these Resolutions be sent to his widow.

Dated at Biltmore, N. C., August 1, 1895.

B. WORTH, for the Carpenters.  
J. O'NEILL, for the Bricklayers.  
G. BARTIGATE, for the Stone-cutters.  
S. J. McKEON, for the Plumbers.  
R. J. MILLER, for the Marble-cutters.  
S. C. GLADWYN, for the Wood-carvers.  
J. MORTIMER, for the Plasterers.

J. MILLER, for the Stone-carvers.  
J. C. THOMPSON, for the Painters.  
L. BOWEN, for the Electricians.  
E. D. HOLT, for the Tile-layers.  
P. F. JONES, for the Copper-smiths and Slaters.  
P. McNIVEN, for the Stone-setters.

Committee.

GEORGE BARTIGATE, *Chairman*.

S. C. GLADWYN, *Secretary*.

Surely such a testimonial as this is a precious and inspiring inheritance to those who bear the responsibilities of his name — no less inspiring, no less precious than the tender and loving tributes of the master of that great estate. The principal decorations of the great hall are two life-size portraits by Sargent, one of Hunt and the other of Olmsted, who on this splendid field, as elsewhere, worked in most fortunate sympathy to the glory of art in America.

In the opening of this discourse I ventured to intimate that the life which we are commemorating was full, fortunate and complete beyond the common lot of mankind. I hesitate to speak of the element most essential to this almost ideal condition of felicity and success which was furnished in Hunt's marriage in 1861 to Catherine Howland, daughter of the senior member of the old and famous firm of Howland & Aspinwall, of New York. To this alliance he was indebted for a high companionship of the soul, a solace of perfect appreciation, a constant service of sympathy, consecrating all the most productive years of his life. His children, three boys and two girls, surrounded him with respect and devotion, and grandchildren came to make new demands on his inexhaustible capacity of love. Of the two older boys, one, as you know, was associated with him in business, and the other has now begun his second year at the Ecole in Paris. May they carry through another generation in triumph the illustrious name they bear!

In this atmosphere of peace and material prosperity, his fame increasing, his opportunities multiplying, compassed by a cloud of witnesses who admired and praised him, the love of his art possessed him with an ever-increasing passion. In his last years, when pain and serious disabilities came upon him, this indomitable love was his comfort and consolation. Even in his last and darkest days the desire of creating filled his still active mind with a fair imagery, which, we may truly believe, though here unexpressed in form, was not a vain dreaming. Even in his ashes live his wonted fires. Upon his death-bed he was seen to raise his hand and, with the fine gesture of the artist, to trace as with a pencil in the air a line of beauty, delicately but firmly fitting the act of grace to the unconscious study of his imagination. And so, a few moments later, with insensible transition, bearing with him the divine creative gift, unsullied, undiminished, immortal, he passed over into the larger life.

And doubtless unto him is given  
A life that bears immortal fruit,  
In such great offices as suit  
The full-grown energies of Heaven.

#### CO-OPERATION VERSUS COMPETITION.<sup>1</sup>

MY friend, the political economist, has a theory that all the evils of competition in the industrial world are to be cured by the one panacea of coöperation.

I call you all to witness that we have evils enough from competition and especially from "competitions" in our profession; but I do not mean by the title to this paper to intimate that coöperation can ever annihilate competition between architects. No! competitions are always with us and probably always will be. We are all tired of hearing others talk on the subject and are almost tired of talking ourselves. It is this weariness that has impelled me to suggest another topic for the consideration of this Convention, and I have set up "coöperation" against competition, not to oust it entirely from the profession, but to supplant it for a while in our discussions, to make it our latest "fad," if you please. We have tested the possibilities of competition, let us give a fair trial to coöperation.

There is reason enough to exalt coöperation, from the fact that the whole idea of this Institute is based upon it. In all our transactions we are coöperating for the good of the profession, and what I would have you consider is whether we can, with advantage, extend the field of our coöperation further than we have done. By this I mean more than adding to the list of topics to be discussed by our conventions or investigated by our committees. I mean to suggest a new motive for coöperation.

Our Convention topics and Chapter discussions usually concern themselves with the regulation of professional fees, of competitions and other questions of interest to ourselves. Once in a while something new turns up, such as the idea of getting the Government work away from the Supervising Architect and dividing it up between us. When we go to a meeting we expect to get some immediate benefit therefrom, and if we fail to get that benefit, we stay away from the next meeting. In fact, we coöperate purely for our own benefit. We do not expect nor intend to help any one outside of our profession.

Of course, what makes better architects helps the community and

<sup>1</sup> A paper by Mr. Normand S. Patton, F. A. I. A., of Chicago, Ill., read at the Twenty-ninth Annual Convention of the American Institute of Architects, held at St. Louis, Mo., October 15-17, 1895.

in this indirect manner we serve the public. Occasionally we venture a little farther in an altruistic direction. We believe that if we are given a chance to plan the Government buildings, that the public will be the gainer. In so far we will do the public a service by laying hold of this work, and we need not hesitate to claim that we are working for the public in this agitation.

When our Chapters help form and revise building regulations for our cities, they undoubtedly are doing a greater service to the public than to the profession of architecture directly.

You, doubtless, see the point to which I am coming. While our main object may properly be the good of our profession, should we not add to this the avowed purpose of cooperating through this Institute and its Chapters for the public good.

To express the idea differently, let us put some of the missionary spirit into our work. Why should we do this?

First: The community needs it. The public always needs leaders and these leaders must naturally be drawn from among those qualified for the position. If those who are qualified shirk the responsibility, then the public will be misled by the incompetent. It is the duty of every citizen to contribute to the public welfare according to his ability.

The wealthy owe it to the public to devote a portion of their means to the public welfare. The physicians are called upon to step beyond the taking of fees from their patients, to assume the leadership in guarding the public against the spread of disease. When we need a revision of our statutes we have a right to call upon the legal profession to bring this about, not in the interest of their own fees, but of the public good.

Has the public no need of leaders in the domain of architecture? Individually, I trust that we are all missionaries in advocating the best art that we are able to produce; but is there not some service that the public needs of us collectively? something that the individual cannot do. I believe there will be no lack of opportunities to serve the public, if we set about to look for them.

My proposition is that this Institute and its Chapters assume the leadership in all those branches of art that are embraced under the head of architecture. Let us be on the lookout to see what the public needs and then help the public to get it. This may seem too vague a task to have any meaning, but if we apply it to the local Chapters or to the architects in any one city or town, it becomes more definite. I can best illustrate my meaning by a reference to a movement now being carried on by the Illinois Chapter.

Those of you who are familiar with Chicago know that we have not much whereof to boast in the beauty of the business district. There is no public square or park in the heart of the city, and consequently no opportunity for the display of fine architecture. What was once a court-house square has been nearly obliterated by the combined county court-house and city-hall, but there is a difference between this square and those adjoining, because the building does not entirely cover the lot. About a year ago a proposition was made to the county to pull down its half of the building, and erect a structure sixteen stories high, built out to the street-line.

This proposition developed a vigorous protest from the Chapter of architects, which was taken up by the Real-estate Board and other organizations and secured the defeat of the project.

The Chapter thought it wise not to stop with a protest against a disgraceful scheme but to lead the way to the adoption of a better one. It therefore appointed a Standing Committee on Public Buildings and Grounds to suggest a proper location for the public buildings in the heart of the city and having in mind specifically the development of the Lake-front so as to give the city at once a park and a location for such buildings as a city-hall, library, museum, exposition building, armories, etc.

The Committee on Public Buildings and Grounds thought that other professions would like to join in this movement, and to this end invited to a conference the engineers, artists, real-estate dealers, builders and the Civic Federation. Out of this conference grew the Chicago Municipal Improvement League, which consists of Committees of three each appointed by the following organizations: The Illinois Chapter of the American Institute of Architects, The Western Society of Engineers, The Chicago Society of Artists, The Chicago Real-estate Board, The Chicago Builders' and Traders' Exchange, and the Civic Federation.

It is too early to speak of results accomplished by this League, but it has helped bring the Lake Park improvement before the public until the matter has been taken up by the city authorities in a manner to promise a speedy commencement of work.

The Committee of Architects has prepared a plan showing the arrangement of building sites and the general park features. This plan was submitted to the League at its August meeting, and at the following meeting was formally adopted. The Illinois Chapter has given a ready support to its Committee in this work, and on Monday evening of this week endorsed by a formal vote the work of its Committee.

On the same evening, the writer, by invitation of the President of the Chicago Real-estate Board, addressed that body on the subject of the "Opportunities of the Lake-front," showing Chicago's lack of beauty in the centre of the city as compared with foreign and other American cities and pointing the way to redeem the city by a development of the Lake-front as the location for public buildings.

At the next meeting of the Chapter the Committee expects to propose a plan by which a large number of members shall contribute

to the solution of the problem of the Lake Park and its buildings. Meanwhile the public is not distracted by schemes of rival architects, for the Chapter has referred the whole matter to its Committee.

If any of you shall see, on a future visit to Chicago, a group of handsome public buildings on the Lake-front, it will be safe to give the credit to the Illinois Chapter of this Institute.

There must be opportunities in all our cities for the architects to lead the public in some work of permanent value. This is the kind of cooperation to which I would lead the Chapters of this Institute. If we are to place the architecture of our times on a high level, we must supplement the efforts of individuals by the cooperation of all the members of the profession, and this with the distinct purpose of serving the public.

In the second place, we need to take up this work for its effect on ourselves. There is often a stronger bond in altruism than in egoism, and it would be no surprise to me to see members who will not attend meetings for what they can get out of them, coming to give their share to the work for the public. It will give a higher motive to this Institute that cannot but be helpful to all our proceedings. Let us come to these Conventions, not only to get something, but to do something.

Lastly, this work will not be without its reward. A good conscience and the sense of having helped our fellow-men ought to be enough. We will have these and more, for we will have set our profession on a higher plane in the sight of the public. The name "architect" will mean something more and higher than it did.

I see by the programme that the next speaker proposes to make some suggestions for the "Elevating of the Profession before the Public." I know not what these suggestions are to be, but I venture to affirm that nothing will do more to elevate us in the public esteem than taking up such work as I have outlined.

A recent experience will illustrate the point. The Chicago Real-estate Board has been conducting suits against the Illinois Central Railroad to dispossess the railroad property filled-in on the Lake-front, and which rightfully belongs to the State of Illinois. The committee in charge of these suits jointly with the Real-estate Board's Committee of the Municipal Improvement League held a session to consider an ordinance now before the Common Council for the depression of the tracks of the Illinois Central Railroad. When I saw the prominent members of the Real-estate Board who attended that meeting, the Mayor of Chicago and the Commissioner of Public Works who came to explain their plans, I felt an increased respect for the real-estate dealers of Chicago; for I doubt whether we could get the Mayor of Chicago to attend a committee-meeting of our Chapter.

Later, when speaking to a member of the real-estate committee on this subject he remarked, "I have often thought about your society of architects, how little the public hears of you." Why should the public hear of us or care anything about us when we never say or do anything that interests the public? As long as we are busied about our own petty affairs, we never will be heard of. If the Illinois Chapter shall take up the work which I propose to lay before it at its next meeting, I guarantee that it will be heard of, and the public of Chicago will know that there is such an organization as the American Institute of Architects, and that it has a Chapter in Chicago.

This "elevating of the profession before the public," is not an empty phrase nor a useless honor. If the public value us higher, it will pay us better; and now I have touched a motive understood and appreciated by all.

Our profession is poorly paid for the responsibility laid upon it. The compensation of individuals is always affected by that of the multitude. If we raise the profession in the eyes of the people, we help every member of it to secure a proper recognition of himself individually.

Again, if we pull together for the good we can do, we will gain an appreciation of each other and develop a fraternal interest in each other that will go far to solve questions of professional ethics and ameliorate the evils of competitions when such must be.

Our daily practice is sufficiently filled with labor for ourselves. When we come together as brothers, let it be to give rather than to get. There is such eminent authority for the doctrine that "It is more blessed to give than to receive" that we run no risk in making a fair trial of its efficiency.

I have written this paper under the impression that this Institute is a working organization with certain objects to be promoted and it is my purpose to secure an enlargement of its field of operations. Article II of the Constitution reads:

"The objects of this Institute are: To unite in fellowship the architects of this continent and to combine their efforts so as to promote the artistic, scientific and practical efficiency of the profession"—and I would suggest the addition of some such words as these, "and the welfare of the community in those lines in which our profession can be of special service."

During yesterday's session views were expressed (by Mr. Gilbert), which seemed to meet with general approval, setting forth an entirely different theory of the purpose of this Institute from that expressed in the Constitution. According to this theory the Institute should not exist "to unite in fellowship the architects of this continent," but only to unite a small, self-elected aristocracy. Our effort should be to decrease, rather than to increase our membership. Our efforts are to be combined, not to promote the efficiency of the profession nor even the efficiency of our own members; but

the main purpose is the creation of a very select club, election to which shall be the highest honor for which a member of our profession can strive.

It is hardly necessary to remark that this theory is entirely antagonistic to that upon which our Constitution was based. These two purposes cannot be made to work together in the same society. It is the existence of these opposite ideas that has thrown us into such dire confusion in the matter of the relationship of the Chapters to the Institute.

If the aristocratic theory be adopted, we have no use for Chapters, all we want is the title of "Fellow of the A. I. A."

If the other theory prevails, and we need the Chapters as local working bodies, then we must revise and reverse our whole Constitution, for we have got the cart before the horse. The only working basis for Institute and Chapters is for the Chapters to rule the Institute.

Suppose there had never been any organization of our profession, how would we naturally create such an organization?

First, by the formation of local bodies, then by the union of these in State associations, and thirdly by the election of delegates by these associations to a national association.

We will never have any harmony in our workings until we adopt one or the other policy I have outlined. If it be worth while to form such a select coterie as has been advocated, then let us vote ourselves to be such at once, and proceed by all legitimate means to reduce our numbers until by the "survival of the fittest" those who remain will be truly distinguished.

Do not understand me as opposed to this movement; indeed, if I can be guaranteed a place among the survivors, you may count me in; but if this Institute shall yield its position as the representative of the whole profession, it will not be long before the Chapters organize a truly national association.

Before the formation of the Western Association of Architects, the Institute was run on the theory that it represented the *élite* of the profession. The Western Association was organized on a more democratic basis, with the result that in a few years it outnumbered the Institute and extended its State associations as far east as New York State. Had the consolidation not occurred, the next move would have been the change of name to the American Association of Architects, with the probability that it would have increased and the Institute have decreased. Thus would have been obtained the result sought for, to make the Institute very small and select. It may be that we need two associations, one for work and one for honor, in which case I will be in the first at any rate and in the second if I can get in.

If there shall be only one association, let it be for work and, coming back to my theme, let it be to work for others as well as ourselves; indeed, let it be first for the public and second for our profession.



JOHNS HOPKINS UNIVERSITY, BALTIMORE. — LECTURES ON ARCHITECTURE.

BY the liberality of J. B. Noel Wyatt, Esq., of Baltimore, the Trustees of the Johns Hopkins University are enabled to announce a course of three lectures upon the History of Architecture, to be delivered before the University during the month of November, 1895.

The first lecture will be delivered on Monday, November 4th, by Mr. Henry Van Brunt, of Kansas City, on "Classical Architecture"; the second, on Monday, November 11th, by Professor William R. Ware, of Columbia College, on "Gothic Architecture"; the third, on Monday, November 18th, by Mr. C. Howard Walker, of Boston, on "The Renaissance."

The lectures will be given in McCoy Hall on successive Monday afternoons at five o'clock.

Seats will be reserved for members of the University, who signify in advance their desire to attend the course. Cards of admission will be issued to other persons, on application, by mail, to the Johns Hopkins University.



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

SMOKING-ROOM IN THE UNIVERSITY CLUB-HOUSE, WALNUT ST., PHILADELPHIA, PA. MR. WILSON EYRE, JR., ARCHITECT, PHILADELPHIA, PA.

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

An exterior view of this building was published in the *American*

*Architect* for December 13, 1890, No. 781, and a view of the doorway in the *American Architect* for June 20, 1891, No. 808.



Dining-room Fireplace in University Club-house.



Staircase in University Club-house.

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[Additional Illustrations in the International Edition.]

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[Gelatine Print.]

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[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.]

### A CASE UNDER THE CALIFORNIA STATUTE OF LIMITATIONS.

LOS ANGELES, CAL., October 22, 1895.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—I would be glad to have the opinion of some reader of the *American Architect* on the following legal question:

A City School Board accepts plans for school buildings and a minute of said acceptance is recorded and approved. The Board did not have the money to build, and requested the Common Council to build or to advance the money to build with. The Council did not have the money either, so the building question was left in abeyance. Now bonds have been voted and school-houses are to be built, but the improvements for which the above plans were prepared will not be included in said buildings. I have furnished my bill at 2½% for drawings and specifications, but payment has been denied. The present School Board, or at least some of them, say, as they did not incur the debt they ought not to be asked to liquidate it, while others claim the Statute of Limitations. Our State laws bar an oral contract or running account of two year's standing, and a written contract of four years.

My pleading would be, first, the Board's minutes are equal to a contract, hence the Statute of Limitations does not reach the case. Plans, etc., were accepted November, 1892. Should that pleading fail, then another which would be according to the practice of the Institute of American Architects—first payment is expected when contract is let, or when work is abandoned. I could not ask payment, since the contract has not been let, and the Board has not yet resolved to abandon the work, but I can only infer it will, since no appropriation for this particular item has been made in its estimate before voting bonds, and now contracts have been let which will absorb all available money from the bonds sold. The question is, can I recover at law on one or the other of the above pleadings, or must I consider the case barred by the Statute of Limitations?

A citation of cases decided would also be appreciated by

Yours, "EQUITY."

[We think, with "Equity," that the entering of a minute of the acceptance of his plans on the records of the School Board would be sufficient to take his claim out of the Statute of Limitations; and that he would also have a good case under the custom of architects, by which the first payment on account of their fees is considered due when the contract is signed, unless the work is abandoned. Cases under statutes of limitations, however, depend on the wording of the statute, and it is hazardous to infer from a decision in one State what the courts might say in another. It seems to us that the most important element in the matter is to ascertain whether the original School Board was duly authorized to employ an architect, or to accept plans, which would probably be interpreted as meaning about the same thing. Boards and committees are so apt to pass votes, and take action in various ways, without authority, to the injury of people who trust them, that an inquiry into this point should be the preliminary to any further action. If the Board was not authorized in due form to incur a debt to the architect in behalf of the community, it is doubtful whether any of the individual members could be held liable. In some States, apparently, they could be so held; in others, not. We should be glad to furnish citations as requested, but the field to be covered is so large that we would suggest to "Equity" to refer to such chapters as suit his case in "Architect, Owner and Builder Before the Law," and, with the assistance of these, to make, if he wishes, more particular inquiries later.—EDS. AMERICAN ARCHITECT.]

### THE ORIGIN OF THE POINTED ARCH.

BOSTON, MASS., October 15, 1895.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—The uncertainty of the constructive origin of the pointed arch leads one to think that if it had been known to the Assyrians or Chaldeans as being beautiful, they would have used it more in their masonry. It may be *apropos* to suggest that a timber-building people first appreciated its beauty of form as a roof-support by observing the shadows of the columns thrown on the ceilings by the light from the roof-windows of their basilican churches. In a small church, in Dorchester, whose roof is supported by columns, the shadows of them on the flat ceiling coincide with what would be the lines of groined vaults necessary to support it.

Yours truly, PATRICK A. TRACY.

[The origin of the Gothic vaulting was hardly so simple as this. Whatever may be said of the acquaintance of the Egyptians and Assyrians with the form of the pointed arch, there can be no doubt that, as the basis of a system of construction, it was first employed by the French and German in the twelfth and thirteenth centuries; and although the French and Germans were, to a certain extent, a wood-building people, their groined vaulting was a development, not of a flat ceiling with shadows on it, but of the Roman groined vaulting, modified, in some cases, by the influence of the practice of covering long, narrow rooms with simple cradle vaulting, which had been for centuries habitual with the mediæval masons.—EDS. AMERICAN ARCHITECT.]

### THE ROTCH TRAVELLING SCHOLARSHIP EXHIBITION.

BOSTON, MASS., Oct. 29, 1895.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Will you kindly announce that an exhibition of the work of Mr. Walter H. Kilham, tenth holder of the Rotch Travelling Scholarship, is to be held at Doll & Richard's Gallery, Park St., November 5th to November 9th inclusive. It is hoped that all who are interested in the Scholarship will take the opportunity of seeing the excellent work which Mr. Kilham has brought back with him.

Yours very truly, C. H. BLACKALL, Secretary.



ATLANTA, GA.—Cotton States and International Exposition: September 18 to December 31.

BOSTON, MASS.—Summer Loan Exhibition; Gobelin Tapestries; Japanese Paintings; Line Engravings, Mezzotints and Etchings by Rembrandt: at the Museum of Fine Arts.

Triennial Exhibition of the Massachusetts Charitable Mechanic Association, including Art Exhibition and Special Poster Show: October 2 to November 30.

Paintings from the Paris Salons of 1895: at the Jordan Art Gallery, 450 Washington St. opened October 14.

Exhibition of Water-colors: at the St. Botolph Club, October 28 to November 16.

Exhibition of the Work of Walter H. Kilham, Tenth Holder of the Rotch Travelling Scholarship: at the Gallery of Doll & Richards, 2 Park St., November 5 to 9.

Exhibition of Work by A. M. Cobb, T. B. Metegard and H. L. Todd: at the Cowlee Art School, 145 Dartmouth St., November 1 to 9.

BRIDGEPORT, CONN.—Exhibition of Artistic Posters: at the Public Library, November 9 to 30.

CHICAGO, ILL.—Eighth Annual Exhibition of Oil-paintings and Sculpture: at the Art Institute, October 22 to December 8.

CINCINNATI, O.—Fifth Annual Exhibition of the Cincinnati Art Club: at Closson's Gallery, October 21 to November 2. At the same Gallery the Woman's Art Club will open an Exhibition on November 4.

NEW YORK, N. Y.—Twenty-eighth Semi-annual Exhibition: at the Metropolitan Museum of Art.

Turner's "St. Mark's Place, Venice," also, Paintings by other English Artists: at the Avery Galleries, 308 Fifth Ave.

Portraits of Bismarck by Walter Petersen: at Knoedler's Galleries.

Loan Exhibition of Portraits of Women: at the National Academy of Design, October 30 to December 4.

Drawings by C. D. Gibson: at F. Keppel & Co.'s Gallery, 20 East 16th St., October 23 to November 7.

Sixth Annual Exhibition of the New York Water-color Club: at the Galleries of the American Fine-Arts Society, 215 West 57th St., November 11 to 23.

Exhibition of Competition Drawings of the Society of Beaux-Arts Architects: at same Building, November 7 to 9.

PHILADELPHIA, PA.—Autumn Exhibition of the Philadelphia Art Club: opens November 18.



PITTSBURGH SQUATTERS IN JOBOATS.—After years of unquestioned observance of the rights of squatter sovereignty, the occupants of the river-front "joboats" have yielded to the inevitable. The amphibious structures have clung to the shores of the three rivers like great barnacles. Their owners and occupants were free from the tax-gatherer, and to live in a joboat implied an extremely light drain on the purse. It is true that there existed a fluvial tax, represented in the trouble given the joboat by the river, but that was more than offset by the advantages possessed. By taking advantage of a big river, the joboater secured a position well out of the stream, and occasionally far from its margin. There he became part of his surroundings, and in due time the boat lost many of its characteristics as such, and became a house. Trees shaded its flat roof, and vines clambered about its doors and windows. This lasted until a rise greater than the one which placed it among houses took place. Then damp trouble came. The cellar of the joboat was certain to leak like a basket after its months of remoteness from water, and the river invaded this part of the boat, and forced the occupants above to abandon their home. This trouble over, the craft settled again upon its firm supports, and gave shelter to its owner and his generally numerous family.—Pittsburgh (Penn.) Bulletin.

**PAINTING IRONWORK.**—Considering the immense quantity of steel work now erected, the question of the best paint, and the best method of applying the same, is one of very great importance. In this country the choice usually lies between an iron oxide or a lead paint, both having a good record. Some links in the anchorage of the old Hammer-smith suspension bridge were found in a perfect state of preservation when removed to the Forth Bridge, where they were employed for some of the temporary work. The pigment in this case was white lead, though ordinarily this has a bad reputation for this class of work. In America, so called asphaltum paints have also come largely into use, and in a recent communication to the American Society of Civil Engineers, Mr. E. Gerber gives the results of a careful investigation into the present state of a number of bridges which had been painted with one of the above three classes of paint. In all cases rust was found to a greater or less extent, occurring always in spots in the centre of clean metal. Most of this, however, was thin, and was as bad in new structures as in old. It was, however, found that the iron oxide paints adhered more firmly to the metal than the lead paints, only one case being found in which the latter adhered well and was tough. It is, however, suggested that much of this brittleness was due to adulteration of the oil by turpentine, benzine, or other petroleum products. There is more likelihood of such adulteration with lead paints than with iron, as they are more difficult to spread, and there is thus more temptation to dilute the oil. In some cases, bridges coated with iron oxide 11 or 12 years ago were still in good condition, without having been repainted. Only two of the bridges examined had been painted with carbon or asphaltum paints, but the condition of things in these two cases was found to be not altogether satisfactory, as in neither case was the coating tough and adherent. The metal had, however, been protected by them. Mr. Gerber considers that too little attention has, in the past, been paid to thoroughly cleaning the metal before the first coat of paint is applied. Most of the rust spots found had apparently been there from the outset, and had done no harm so long as not too far advanced. The best plan of securing clean surfaces, in Mr. Gerber's opinion, would be to coat the metal with linseed oil as it left the rolls. — *Engineering.*

**THE GOBERT FREEZING PROCESS FOR SHAFT SINKING.**—A paper by M. A. Gobert, of Brussels, on "The Gobert Freezing Process for Shaft Sinking and Tunnelling under Rivers," was read last month at the meeting of the British Association at Ipswich by the Recorder of the section, Professor T. Hudson Beare. By this process the water-bearing strata and running sands are frozen by means of liquid ammonia poured into the freezing pipes, which are sunk vertically into the ground to be frozen. The liquid ammonia, changing into gas in the freezing pipes, produces a more intense cold than that obtained by unfreezable liquids, which are themselves rendered cold by the evaporation of ammonia. By adopting direct evaporation, the danger is avoided of rendering the ground unfreezable in the event of the escape of the unfreezable liquid; the cost of the installation is reduced by dispensing with the unfreezable liquid, and with the apparatus used for rendering it cold; and the power of the refrigerating machine is much better utilized. The process possesses the advantage of being able to freeze the bottom without freezing the upper layers. Thus, when it is necessary to deepen the lined shaft of a mine which has been flooded, the freezing pipes can be placed inside the lining, without any risk of bursting the lining by the freezing of the water which is inside it. In the case of tunnelling under a river, as the evaporation of the ammonia takes place below the water-level, hardly any of the cold is lost in the contact of the pipes with the water, whereas a great quantity would be lost in employing an unfreezable liquid.

**BUFFALO AND THE NIAGARA FALLS POWER COMPANY.**—An interesting state of affairs is developing at Buffalo, which seems to prove that too little haste may be as impolitic as too much. It will be remembered that the Buffalo municipal authorities were originally disposed to insist on several somewhat arbitrary conditions in negotiating an arrangement with the Niagara Falls Power Company for the supply of current to Buffalo. The negotiations, moreover, were conducted by the city authorities very leisurely, on the assumption that the power company could not well do without them. Presently, however, the new town of Depew, a few miles from Buffalo, made a large bid for Niagara current, and before long it became evident that the whole of the electricity that can be generated by the present Niagara Falls plant could be disposed of entirely outside of Buffalo. So that that city, in which many large real-estate and other deals have been based on the assumption that electricity from Niagara would be available for light and power purposes, is now waiting on the power company. The franchise proposed by the city has been blankly refused by the power company on the terms which the city offer. The company objects to the manner in which the city wishes it to erect its poles, string its wires and build its conduits. It objects to the proposed tax of 5 per cent upon the receipts of the company; and it objects to the limiting of the grant to twenty-five years, and also to the penalties of violation. If an agreement is arrived at, it will be on different terms. — *N. Y. Times.*

**MOLASSES ROADWAYS IN SALT LAKE CITY.**—It is not generally known, but the Utah Sugar Company has begun a novel use for the waste product from the works at Lehi, known as by-product, or molasses. Roads are actually being constructed with the syrups, which are valueless as sugar producers, the life having been extracted. The molasses is used as a cement, the body of the road material being made up of fine gravel. This new method was first used on the road leading from the country road to the sugar factory, and the travel over this thoroughfare since the opening of the sugar season has demonstrated the value of the syrups and gravel as materials for the improving of roads. The piece of road that has been so improved is as hard as the best of macadam, and even the heaviest loaded wagons do not cut it up. The syrups are first poured over the roadway to be improved, and then a layer of gravel is sprinkled on. More syrups and gravel follow in their turns, until the road is in perfect condition. There seems to

be just sufficient potash salts in the molasses to give it the necessary cementing qualities. This making of roads and walks with refuse syrups from sugar factories has also been successfully tried in California. It is not at all unlikely that at the end of the present season the company will make more improvements on the roads leading to the factory. At first the molasses showed a tendency to ooze up through the gravel, but the application of an extra coating of gravel remedied this, and made the road as smooth as a floor, and as hard as pavement. — *The Salt Lake (Utah) Herald.*

**THE HOUSE IN WARSAW WHICH NAPOLEON ONCE OCCUPIED.**—The French representative at Warsaw has just received a curious petition from a Polish peasant, who asks that his house should be rebuilt at the expense of the French Government. The ground for the request is that the building in question is really a most interesting monument of the first Napoleon, which ought to be preserved. The cottage is about five versts from the fortress of Novogeorgievsk, in Russian Poland, and it is asserted that, in 1806, the Emperor passed an entire day and night within its walls, while supervising the passage of the Narev by his army. Napoleon, in fact, made the house his headquarters. At that time it was owned by a Polish peasant, named Afek, of whom the present occupant—known by the villagers as "Afek-Napoleon"—claims to be the great-grandson. Above the entrance the following inscription has been cut: "*Palais de l'Empereur, 23 Decembre, 1806.*" Inside, on a block of black marble, is another inscription in Latin: "*Napoleo M. Imperator Rex Hostes persequens. Hic hostem exit 23 Xbris, 1806 in Okusin.*" The origin of these inscriptions does not appear to be known, but the tradition of the Emperor's stay has always been piously preserved in the Polish peasant's family. — *Boston Herald.*

**THE OWNER NOT LIABLE FOR ACCIDENTS TO FIREMEN.**—How far the owner of a building is liable for injuries to firemen who fall into an elevator-well when entering the building to extinguish a fire has been settled by two decisions from two courts in different States. In one—a recent case—that of *Beehler vs. Daniels*, Rhode Island, 27 D. R. A. 512, the liability of the owner is denied, the ground of the denial being that, as the owner did not invite the firemen to enter the burning building, the latter, doing so under a license conferred by law, are in consequence mere licensees. A decision of like tenor was given in the case of *Woodruff vs. Cowen*, 22 L. R. A. 198—an Indiana decision. We do not know of any other decisions that bear upon the duties and liabilities of the owners of buildings to guard against the possibility of firemen and others charged with the duty of extinguishing fires or protecting property in a burning factory, store, or house, but we may safely infer that these decisions will serve as a precedent in any other cases that may occur. At the same time it would seem as if the least the owners or occupants of buildings in which such traps exist could do would be to see that, in the event of a fire breaking out on their premises—which may occur at any moment, the firemen be not exposed through the occupant's thoughtlessness to any more risks than those with which he is always likely to meet in the performance of his dangerous duties. — *Fire and Water.*

**THE LEGEND OF ST. URSULA AND HER VIRGINS.**—This number of eleven thousand is an evident exaggeration. We can with difficulty understand how a tyrant, no matter how cruel, would dare to commit such a massacre, even supposing that the city where Ursula lived contained such a number of maidens. It is simply stated in the martyrology that St. Ursula was put to death with her companions, no number being given. How has this legend established itself? How have the "some companions" become eleven thousand? Opinions differ regarding this singular tradition. According to the most widely spread idea, the companions of Ursula numbered eleven. Their massacre was commemorated in an inscription running thus:

.....  
: VRSVLA ET XI MM VV :  
: Ursula et undecim martyres virgines, :  
.....

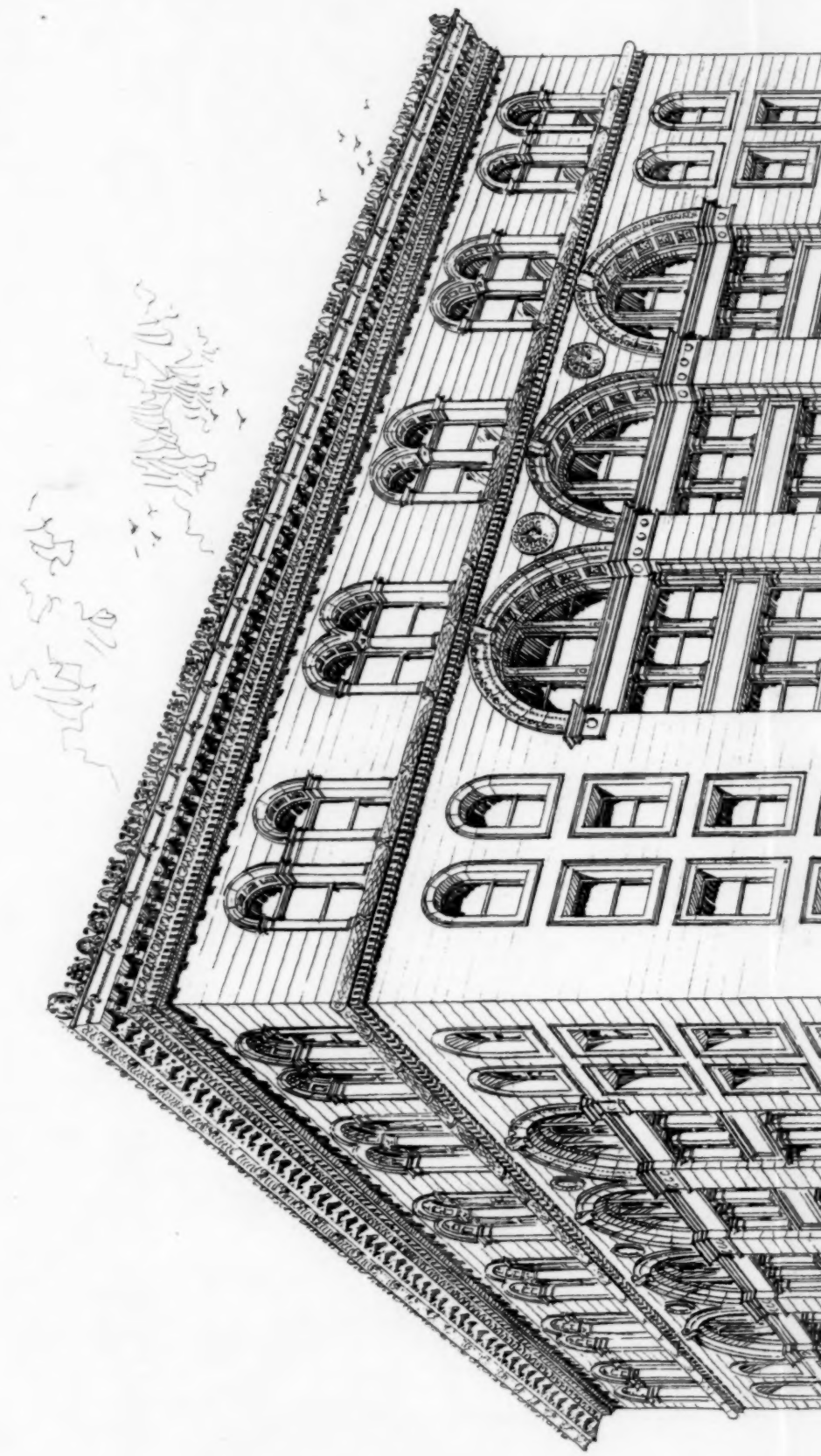
which signifies "Ursula and eleven virgin martyrs." An ignorant translator read *millia* instead of *martyres*, and so multiplied by one thousand the number of victims. This explanation is very simple and appears quite probable. Nothing prevents the characters "MM" from meaning *millia* (thousands) instead of *martyres* (martyrs). Nevertheless a doubt occurs to us. Does the inscription just quoted actually exist? Where is it? From what epoch does it date? No one tells us! So we are disposed to consider it as apocryphal, and as created solely for the purpose of assigning a cause. It is then elsewhere than in this hypothetical inscription that we seek the tradition of "the eleven thousand virgins." It was once the custom—or, at least, it was a frequent usage—when the family was numerous, to give to the children a name that should denote the order of their birth. The first was thus called *Primus*, the second *Secundus*, and so on. Two of these prenomena have survived. To this day the names of *Septimus* and *Octavius* are not rare. Now *Septimus* means "seventh" and *Octavius* "eighth." The eleventh child would then take the name *Undecimus*, and if it was a girl, the form would be *Undecima*. If families of eleven children were sufficiently frequent in that age, when the depopulation of France was an unheard-of subject, the eleventh child might be regarded as the pet of the house—the "baby." *Undecima* then would become *Undecimilla*, a diminutive form to the name more of grace. St. Ursula might have had for a companion a young girl of this name. Now, in place of *Ursula et Undecimilla*, it would have been easy to read *Ursula et Undecimillia* (eleven thousand), whence the legend of eleven thousand virgins could have arisen. As letters were never doubled in writing, the error is easily explained; it becomes altogether probable, if the story of the martyr Ursula was handed down by tradition. It would suffice that the narrator, or even the writer, was ignorant of this name of *Undecimilla*, which was, perhaps, very rare, and so transformed it into *undecimillia*. — *Magasin Pittoresque.*

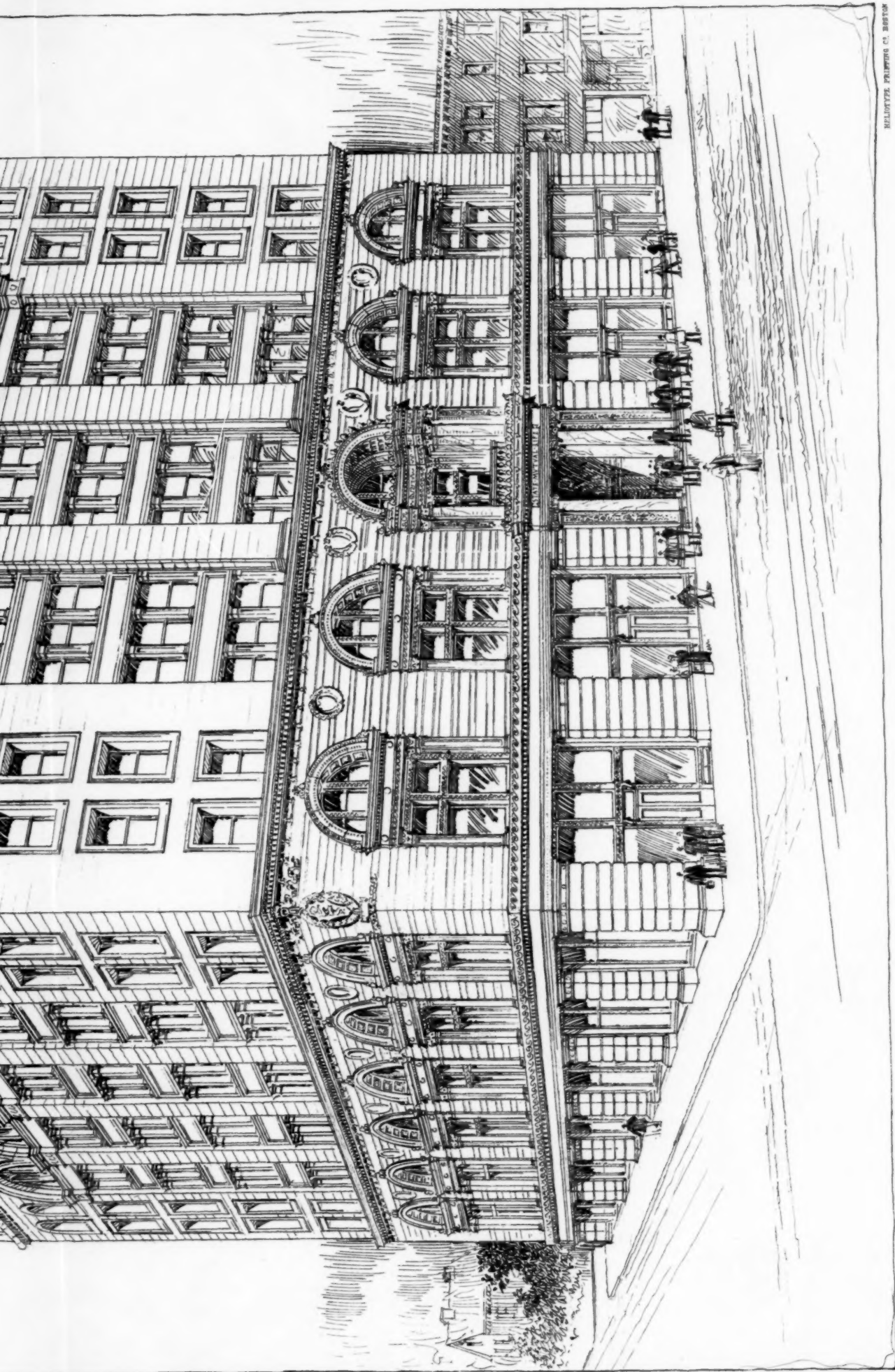
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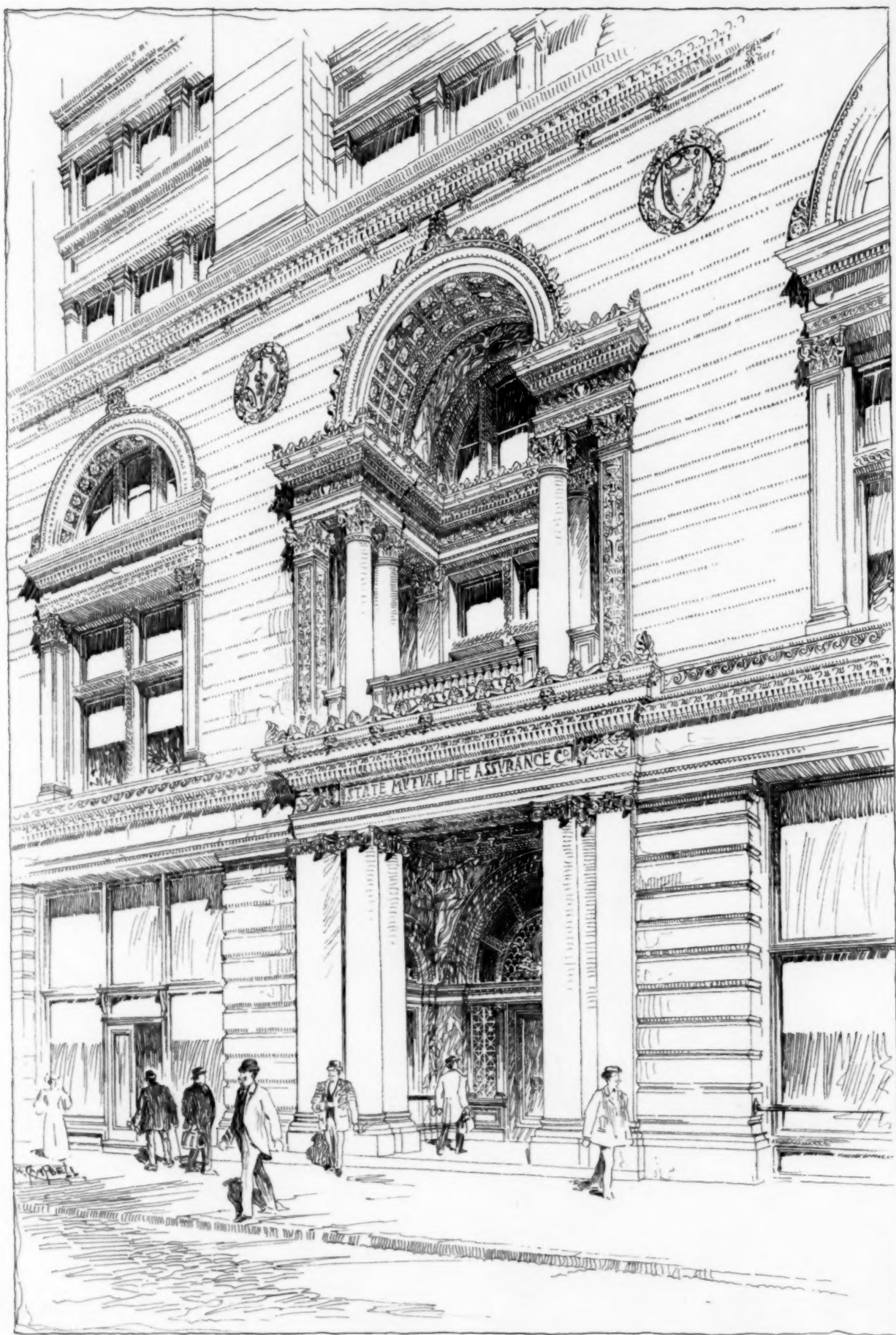
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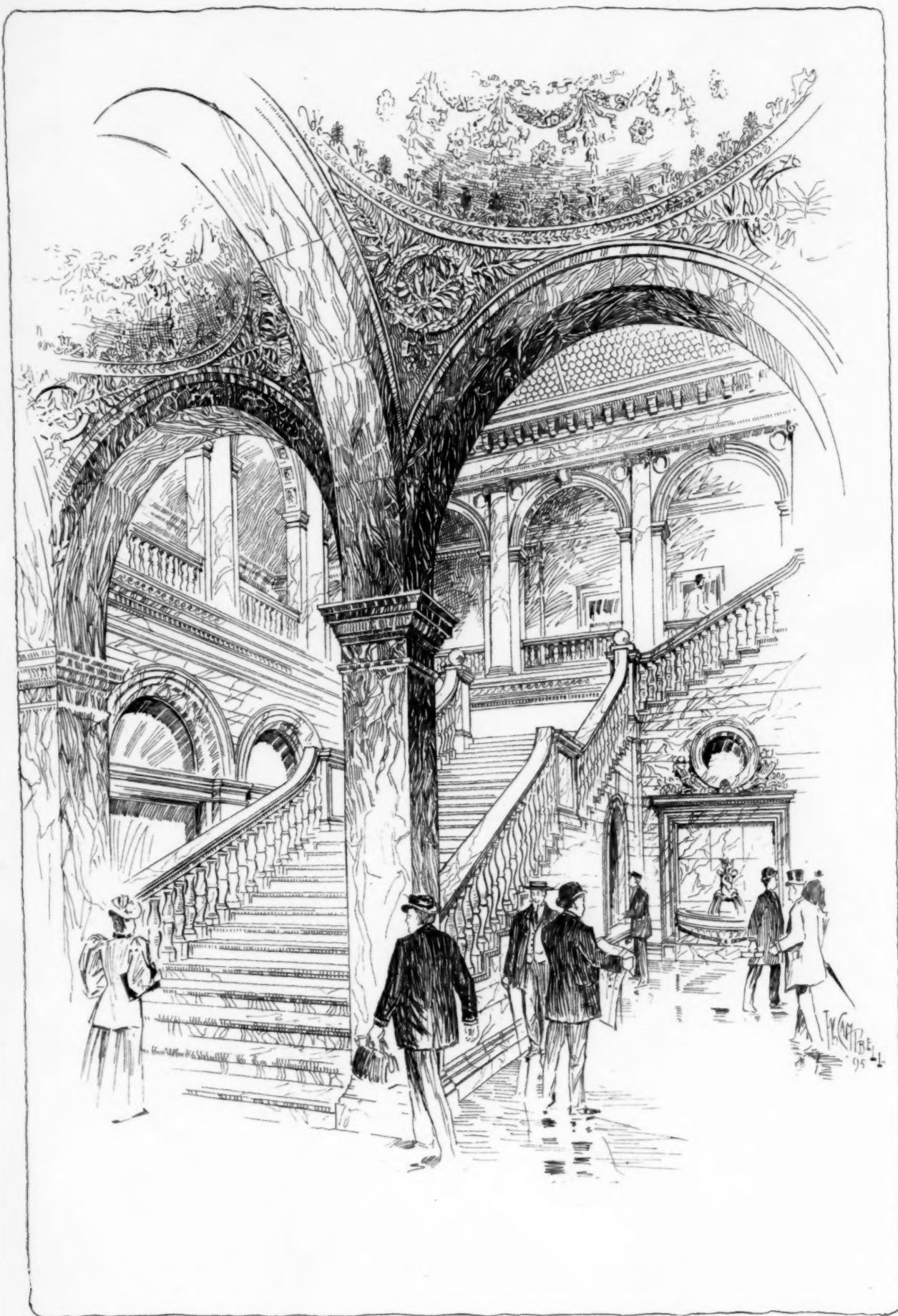


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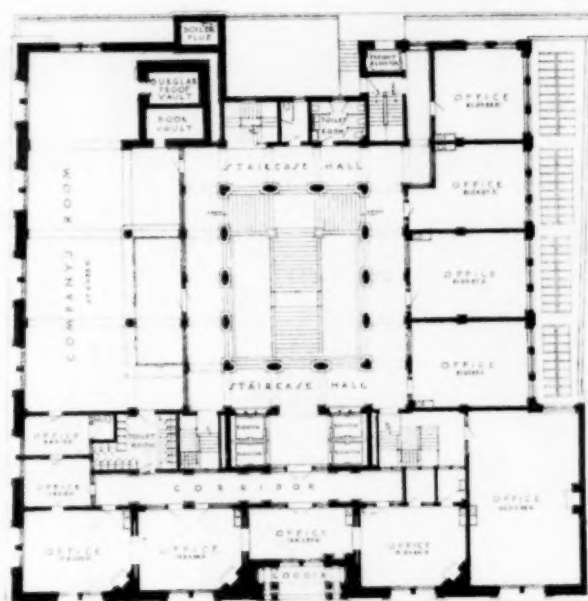


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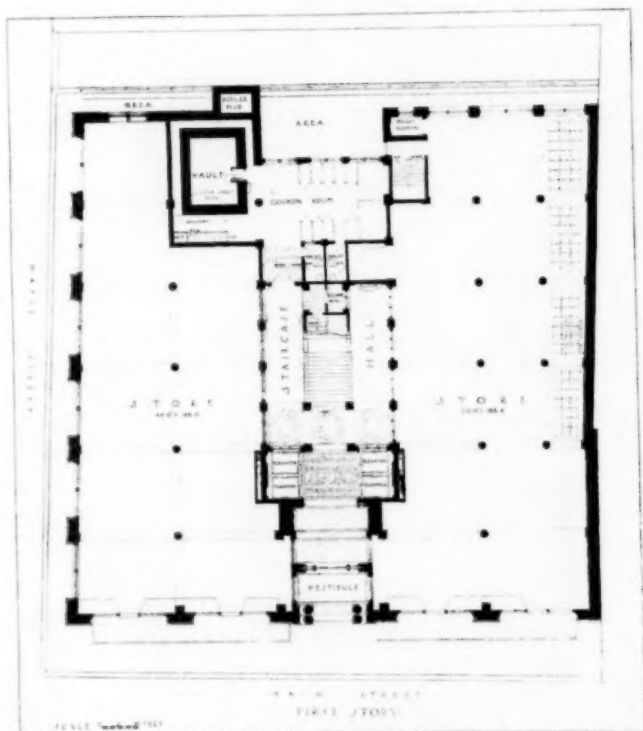


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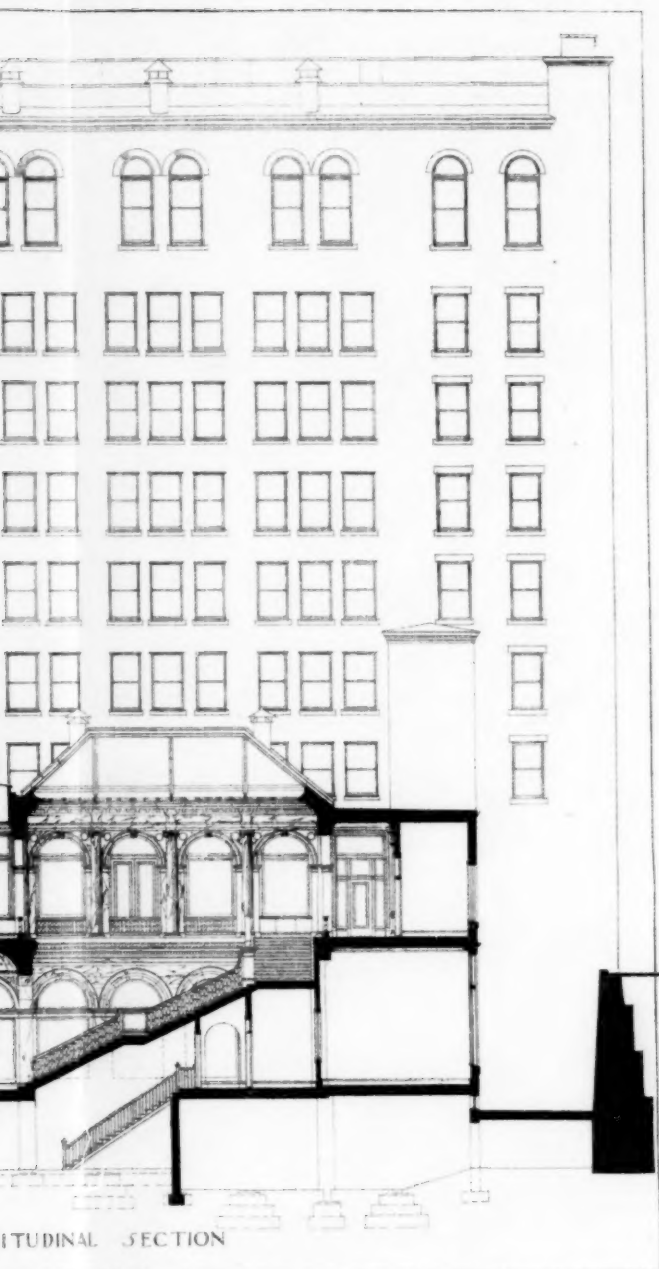


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