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THE somewhat noted case of *Tolman vs. Phelps*, which, it will be remembered, involved the question of ownership of an architect's drawings, was decided on appeal in Washington early last month. In some remarks upon the subject last year we were under a misapprehension as to the facts which we are glad to have corrected, even at this late day, by an authoritative statement from the parties interested. Two different suits were brought, in one of which the architect was plaintiff, and in the other defendant. The latter suit was brought by the client for replevin of the plans of certain houses, which he claimed as his property. The architect did not, as the earlier accounts wrongly asserted, withhold the use of the drawings from his client, but offered them freely for all reasonable and usual purposes. This favor was however refused by his client, who declined to receive them unless with an acknowledgment that they were absolutely his; and upon the denial of this very unusual claim proceeded to seek satisfaction from the law. The architect, who had not been paid what he understood to be the agreed price for his services, brought his claim for payment before the court soon afterward. The suit for replevin and the suit for payment for services were argued together, and decided, and an appeal taken, and in both cases the decision of the court below was affirmed. The suit of the architect for payment was partially successful, a certain amount, though not the whole sum claimed, being awarded by the inferior court, and its judgment confirmed on appeal by the refusal of the superior court to grant a new trial. In the replevin case, in answer to the argument of the architect's counsel, that custom made the drawings the property of the architect, the superior court agreed with that below, that even after a building is completed the employer is entitled to the plans, and that "no custom to the contrary can be sustained." The owner of the house might, they said, wish to make alterations or repairs that would require the use of the original plans, and such a custom would defeat the owner's wishes, and subject him to inconvenience and expense; while, as they further contended, the owner, unless himself a professional builder, would naturally be unacquainted with the customs of architects, and could not therefore be bound by them.

THE reasoning by which these latter conclusions are arrived at seems to us a little obscure. It is true that an owner, wishing to alter or repair his house after its completion, might suffer inconvenience if he were deprived of the use of the plans of his building, and he ought therefore to have a right to inspect them, or if necessary obtain copies of them, paying the architect a suitable sum for making them. This would not, and could not reasonably be refused, but more than this he has no justification or excuse for demanding. On the contrary, not only the private interest of the architect, but his notions of duty toward his client, require him to keep the original drawings of his buildings with the utmost care, in such form as to be always accessible in case of subsequent question about valuations, boundaries, failures, repairs, or alterations, and he justly feels a summons to deliver them up to a client who can neither understand nor take care of them to be what in nearly all cases it is, a wanton attempt to inflict unexpected injury and annoyance upon him. We have before compared the original

plans and specifications of the architect to the notes of the physician, and the comparison appears to us to hold good from many points of view. As the physician, while making his prescriptions, ordering the regimen of the sick-room and paying his regular visits of examination, is glad to explain his diagnosis of the case to a patient intelligent enough to understand it, so the architect, anxious about a thousand details which none but a professional man can even conceive of, is yet never so much pleased as when his clients interest themselves in his design, and endeavor to understand the indications of the drawings. Like the physician, too, he is always ready to make abstracts of his notes, in the shape of small-scale sketches, for the pleasure or use of his clients, or even to copy them at length, at their request, if needed for consultation, and no one but those who would deprive their good doctor of his hard-earned fee would refuse to pay an architect for similar extra service. Beyond this our parallel necessarily fails us: the patient who would dream of demanding his physician's notes of his case, on the ground that he paid him for making them, is as yet unknown, although the loss of such notes would inflict less injury upon a medical man than the surrender of a set of original drawings would occasion to an architect, and the principle of law in relation to the obligation of professional customs upon laymen ignorant of them, which was laid down by the judges in the *Tolman-Phelps* case, is equally applicable to both. There is, however, in the case of the physician, a universal courtesy quite independent of custom, which would reprobate severely an attempt to extort unusual and unpaid service from them, or to humiliate them by demanding the original records of their practice, and it is not too much to hope that a similar recognition of the rights of architects may prevail in the society of the future.

As usual after a few days of very cold weather, accounts come in from all quarters of damage done by "defective flues." The worst of these occurrences during the past week seems to have been the total destruction of the Hartford High School building, involving a loss of one hundred and twenty thousand dollars. It is true that accounts disagree as to whether the catastrophe should be attributed to a "defective flue" or an "overheated furnace," but in point of fact these expressions mean the same thing, and if they really indicate the origin of the fire, either of them simply means that through the ignorance or neglect of some one, wood-work was placed in the construction in dangerous proximity to apparatus for containing and conveying burning fuel, gas, and heated air; and on its temperature being raised to a degree somewhat higher than usual, on account of the necessary urging of the neighboring fire, it obeyed the natural law provided for it, and entered into combustion. There is nothing new or surprising about this; and the needful thickness of the walls of flues, the necessary distance of wood-work from them and from heated furnaces or pipes, and the proper means of protecting exposed surfaces, are all well known: so that the explanation of the destruction of such a structure by the theory of overheated furnaces or defective flues always, to the professional mind, casts a serious imputation on those who had the care of building it. The architect may not be, and very probably is not at fault; indeed in such cases he is usually the one who pleads for safe and solid construction, to be overruled by his committee, who decline to sanction any departure from the common modes of building; but such matters should no longer be left to chance or caprice. Let school committees and school architects build for themselves what they will, they have no right, and should be forcibly prevented from trifling with the lives of the children whose safety is entrusted to their care. It is humiliating to reflect that school-houses, even the most costly ones, are considered by underwriters to be among the more hazardous of ordinary buildings, and this quite independent of the planning, which is such that the burning of one during school hours is almost always attended with serious or fatal casualties. There is in England a certain society for promoting the erection of churches, which employs its large income in assisting poor parishes to provide themselves with houses of worship. In the exercise of this charity it has acquired a very great and beneficial influence over ecclesiastical architecture, by publishing a set of rules for convenient and suitable planning, and strong and sincere construction, which must be observed by those who

apply for its aid. These rules are strictly enforced by the simple means of refusing any grant whatever to a church not built in accordance with them. It would not perhaps be amiss to provide for imposing similar care upon the builders of school-houses, by prohibiting the expenditure of public funds on any in which such an accident as that at Hartford would be possible. If architect, contractor, and committee knew that their only chance for obtaining money to pay for such a building depended upon the certificate of disinterested experts that under no circumstances could the children who were to occupy it be burned, suffocated, trampled to death, or even seriously frightened, or injured on account of fire, the standard of school-house construction would soon be materially raised.

THE Boston *Herald* appears to be inclined to renew its good offices in calling public attention to the defective condition not only of the fire-escapes and other appliances for guarding the lives of factory employes, but of the laws relating to such matters. The report of the Chief of the State Police represents that under the present statutes there is no means whatever of enforcing the application to manufacturing establishments of practicable fire-escapes. Laws have been enacted requiring that fire-escapes should be provided, but without assigning any penalty for their violation, while the merest apology for a means of retreat from a conflagration is accepted as a satisfaction of the statute. Mr. Wade pertinently asks, if an easy staircase seven or eight feet wide is considered to be a barely sufficient means of egress from a public hall containing five hundred persons under ordinary circumstances, what can be said of the usual provision in these buildings and in factories in case of fire, where the same persons, frantic with terror, and pursued closely by the flames, are expected to clamber one by one over a high window-sill and down a vertical iron ladder, with rounds at an inordinate distance apart, to drop ten or fifteen feet from the lowest round to the sidewalk? Under the most favorable circumstances, it would be hours before any considerable number of men, to say nothing of frightened women, could make their way down such a ladder, while smoke and fire need only minutes to do their work. The lesson of the Madison Street tenement-house should teach us the inadequacy of our present appliances, and we hope that the efforts of the *Herald* will serve to promote a radical change for the better in the legislation on that, as well as kindred subjects.

THE Cincinnati *Commercial* describes a trick played by the proprietors of a distillery in that city for securing a supply of city water without paying for it. As in many other places, large consumers of water are obliged to put in meters, and pay for the quantity of water delivered as shown by the meter. The distillery in question, although producing as much raw spirit as others in the neighborhood, paid in water rates only about a third of the average charge, and as it possessed no artesian wells or cisterns the inspectors of the Department concluded that some fraudulent means had been employed for obtaining city water by some other way than through the regular service-pipe and meter. An investigation was ordered, and a loop of pipe was discovered passing around the meter, and connected at each end with the service-pipe. Through this unobstructed channel flowed the principal part of the supply, a small portion only passing through the meter. It is intended to prosecute the proprietors of the distillery under a special law, which provides a penalty for attempt at evasion of water dues. At Brookline, near Boston, a somewhat similar case occurred about a year ago. A man of eccentric habits, occupying a small house in the village, neglected to pay his gas bills, and the gas was accordingly cut off. Some three years afterward information was brought to the company that its delinquent customer used gas in his house in a very lavish manner, not only keeping the rooms brilliantly lighted at night, but employing it for cooking and other purposes. Startled by this, a search was made, and a surreptitious service-pipe was found leading from the main into the house. It was estimated that a million feet of gas had been thus abstracted since the payment of the last bill, and a new account amounting to something like three thousand dollars was presented, and energetic measures taken to obtain payment, whether with success or not we do not know.

THE project of establishing a standard of time for the whole civilized world is seriously entertained among scientific men, and according to a report in the *New York World*, a definite plan, presented at the annual meeting of the Society of Civil

Engineers in that city by Mr. Sandford Fleming, of Ottawa, Canada, was unanimously adopted by that body, and may be the basis of the desired reform. The subject was discussed at the meeting of the Society at Montreal in June of last year, and referred to a committee of which Mr. Fleming was chairman, so that his paper took the form of a report of his committee. In brief, the scheme provides for the establishment of an absolute meridian, to be situated in the Pacific Ocean, from which "cosmic," or "cosmopolitan" time is to be reckoned. The hours of the cosmic day would be denoted, not by numbers, but by the letters of the alphabet, omitting J and V, and all astrological and meteorological phenomena would be referred to this universal time. It has already been remarked that the confusion of local standards of time diminishes seriously the value of the observations made for the Signal Service Bureau, and the introduction of a scientific mode of reckoning would be of immediate benefit to all classes of persons. Besides the cosmic or astronomical time it would obviously be necessary to provide a certain number of local standards, and Mr. Fleming proposes to establish twenty-four subordinate meridians, at equal intervals around the globe, lettering these to correspond with the letters of the cosmic hours. Thus Z representing the chief meridian, or zero, A would be the first subordinate meridian, about a thousand miles west of the zero, the noon hour of which would correspond with the first hour in the afternoon, or A, of the cosmic day. In the same way the noon at each meridian would fall exactly at the hour of the cosmic day denominated by its own letter, and by starting from this letter as the local noon, the letter time all over the world would be the same, whatever might be the variation in the time designated by numerals.

THE Hudson River tunnel is now making steady progress, and operations have begun on the New York side by the sinking of a caisson similar to that employed in commencing the work from the New Jersey shore. The ground near the New York shore is unfavorable, consisting partly of loose stones and sand, more difficult to handle, as well as less easily controlled by the force of compressed air, than the silt and clay through which the western portion has been driven. At present the headings from the New Jersey side are two hundred and fifty or three hundred feet beyond the air-locks, in a bed of heavy clay, which, sustained by the pressure from within, is perfectly effective in keeping out the water. The tunnel is double, and the two parallel headings are pushed as nearly as possible at the same rate, which is now about five feet per day. Work goes on without interruption, day and night, and when operations are fairly begun at the eastern end the speed with which the great undertaking nears completion will be doubled.

ACCORDING to a correspondent of the *Pall Mall Gazette* some interesting discoveries have recently been made at Pompeii. Until very recently, all the valuable or curious objects found in the excavations have been removed to the Museum at Naples, or else, it is said, destroyed, for fear that foreigners might get possession of them; but so many things are now continually brought to light that the sensible course has lately been taken of leaving them in their original places. Apparently, a street or district inhabited by the richer class of citizens has now been reached, and wall-paintings are every day exhumed of a character much superior to those hitherto known. A dining-room, or triclinium, found a few weeks ago, exhibited walls divided in height as usual, into three parts, of which the lower represented scenes in the sea; an eel struggling with an octopus, a shark chasing its prey, and in another part a shoal of small fish, with the sunshine glittering on their scales. The middle portion was filled with birds and wild-fowl flying and fighting in the air, while the upper part, or frieze, represented hunting scenes and combats of animals, in a landscape of remarkable interest and variety. In another house has been found a fresco-painting representing in perspective an amphitheatre, with a battle of wild beasts in progress in the arena. The velarium, or awning, is shown drawn halfway over the enclosure, and various street incidents occupy the corners of the picture. In the garden of one house, the only part yet excavated, has been found a niche, with a half-dome over it, which once sheltered a fountain, and is lined with beautiful mosaics, representing the gods and goddesses in heaven, half concealed by fleecy clouds. The house itself is still buried under thirty feet of ashes, but the richness of this comparatively unimportant accessory indicates that remains of great interest will be found in the state apartments.

ANNUAL ADDRESS BEFORE THE AMERICAN INSTITUTE OF ARCHITECTS.¹—II.

It is proper to add in regard to Mr. Jefferson's interference in the construction of the Capitol that, with the above exceptions, what he said in this connection was in the main suggestive—not mandatory. In a letter to the Secretary of the Navy, written in 1811, to be found in the appendix to Dunlap's "History of the Rise and Progress of the Arts of Design in America," Mr. Latrobe refers to Mr. Jefferson's "positive orders that I should introduce Corinthian columns into the House of Representatives and put one hundred lights of plate-glass into the ceiling, contrary to my declared judgment and earnest entreaties and representations. In other respects, however, the honor

which the friendship of that great man has done me obliterates all feeling of dissatisfaction on account of those errors of a vitiated taste and an imperfect attention to the practical effect of his architectural projects."

In the January number of *Harper's Magazine* for 1869 there is the following paragraph, which it is proper to notice in this connection: "It is within the old Capitol that some of our earlier statesmen rivalled one another in the decorative arts. Jefferson evinced a good deal of architectural taste and capability in pillars varied after the likeness of sheaves of our ancient maize, the ears and blades and silk forming the capital, the clustered, jointed stems bound together for the shaft, and in designs where the blossoms and foliage of the tobacco plant make an effect as exquisite to the full as the old acanthus leaf;" and in a previous number of the same popular periodical a writer, speaking of a visit to Monticello, says: "In the spacious and lofty hall only one object of the sculptor's art remains. It is a model in plaster of the capital composed by Jefferson for a new order of architecture—purely American—in which the column was to consist of maize or Indian corn stalks. The capital has the same general form and style of the Corinthian, but the ornaments are composed of the leaves and blossoms of the tobacco plant, regularly grouped, instead of the acanthus."²

These statements do great injustice, and the deserved popularity and general accuracy of the magazine give them a claim to consideration. The works of an architect are his title-deeds to a fame that is too often the only compensation he receives for the labors of a lifetime. To take from him the credit that is his due is to rob him of what belongs to him. Although he may not have built Giotto's Tower, or Wren's Cathedral, he and those who come after him may take the same pride in his work, however comparatively insignificant, that the Florentine, or the Englishman did in theirs, and it becomes the duty of those to whom their reputation is an inheritance to vindicate it when occasion serves.

In the reconstruction of the north wing of the Capitol Mr. Latrobe planned a vestibule in which are six columns with the capitals modelled from maize, and on the 28th of August, 1809, I find him writing the following letter to Mr. Jefferson, who was then at Monticello:

"Dear Sir: I have packed up and sent to Richmond, to be forwarded to Monticello, a box containing the model of the capital of the columns of the lower vestibule of the senatorial department of the north wing of the Capitol, which is composed of ears of maize, on a short frustum, raising it about four feet from the ground. It may serve for a dial-stand, and should you appropriate it to that use, I will forward to you a horizontal dial in Pennsylvania marble of the proper size. These capitals during the summer session obtained me more applause from the members of Congress than all the works of magnitude or difficulty that surround them. They christened them the corn-cob capitals—whether for the sake of alliteration I cannot tell, but certainly not very appropriately."

That Mr. Latrobe would have written such a letter to Mr. Jefferson had the latter been the inventor or originator of the capital is out of the question. In 1832 I saw it not in plaster, but in the freestone of which the old capital is built. It was then in a sort of loggia that extended from the main building at Monticello.

A word, now, with respect to the tobacco-plant capital. In the north wing is the oval area in which the main stairs were originally placed. These were not interfered with by Mr. Latrobe in 1805, and consisted of double flights from the basement to the Senate chamber floor or story. The lower flights ascended in opposite directions to a common landing, from which other flights at right angles continued upwards to the corridor, on which doors opened from adjacent apartments. When the Capitol was rebuilt after its destruction by the British, this oval of very massive brickwork was permitted to remain from economical considerations, and in this way

the incongruity of a circle circumscribed by an ellipsis came to pass. The stairs were however removed to the position they now occupy, and in their stead were substituted a circular arcade below, with a circular colonnade above. In this colonnade are the tobacco capitals, which were designed by Mr. Latrobe when rebuilding the north wing in 1816 or 1817. Mr. Madison was then the President, and Mr. Jefferson had for years ceased to have anything to do with the building. I recollect distinctly seeing the sculptors at work on the capitals in one of the rooms of the north wing which was used as a workshop for the time being. That my father always claimed them and was proud of them I know of my own knowledge, nor did I ever understand that they or the maize columns were attributed to Mr. Jefferson, until my attention was called very recently to the articles in the two numbers of *Harper*. Had my father remained longer in the employment of the Government, the general idea originating in the corn-stalk column would have been further elaborated, as it has been done by your distinguished president, and I have now in my possession full-sized drawings of a capital whose ornamentation is derived from the cotton plant.

It is hardly necessary to point out the mistake of the writer of the second of the articles here alluded to, who places the tobacco capitals on the corn-stalk shafts—a combination of which neither Mr. Jefferson nor Mr. Latrobe would have had reason to be proud.³

I can still recall, among the shadowy impressions of my earliest boyhood, the effect, approaching awe, produced upon me by the old Hall of Representatives. I fancy I can see the heavy crimson drapery that hung in massive folds between the tall, fluted Corinthian columns to within a short distance of their base; and I remember, or think I remember, the low, gilded iron railing that ran from base to base, and over which the spectators in the gallery looked down upon the members on the floor. I seem to see, even now, the speaker's chair, with its rich surroundings, and the great stone eagle which, with outspread wings, projected from the frieze, as though it were hovering over and protecting those who deliberated below. Of course, after so many years, it is not impossible that form and color have been given to the memories of a boy nine years old at the time by what he has since seen in the portfolios which were almost the picture-books of his childhood. Be this as it may, however, there can be no question that the old Hall of Representatives was a noble room. Even the British officer who was ordered to destroy it is reported to have said, as he stood at the entrance, "that it was a pity to burn anything so beautiful." In a letter from Mr. Jefferson to Mr. Latrobe, dated Monticello, April 14, 1811, he says, "I declared at many and all occasions that I considered you the only person in the United States who could have executed the Representative chamber, or who could execute the middle building on any of the plans proposed"; and again, on the 12th of July, 1812, referring to a letter in which Mr. Latrobe had spoken of attacks upon him, Mr. Jefferson says: "With respect to yourself, the little disquietudes from individuals not chosen for their taste in works of art will be sunk in oblivion, while the Representative Chamber will remain a durable monument to your talents as an architect."⁴

Turning now to the north wing. With the exception of the exterior freestone walls and the brickwork surrounding the oval area in which were the principal stairs, this seems to have been mainly a wooden building. Columns, when introduced as in the Senate Chamber, which was then on the basement floor, were posts, to which form was given by lath and plaster. Mr. Latrobe had little to do with it prior to 1805. In a letter to Mr. Jefferson dated August 31, 1805, giving the details of a very careful examination, he expresses the opinion, in words more emphatic, it must be admitted, than elegant, though better suited, perhaps, than any other to convey the idea that "it must some day be completely gutted and solidly constructed in the interior." The girders, he says, that supported the joists of the ceiling on the west side were being destroyed by dry-rot. In the Senate chamber "the plastering of the columns is so burst as to gape from top to bottom from half an inch to an inch. The state of these columns is dangerous, and it is impossible to say to what extent a repair by pulling off the lath and plaster and repairing them might lead. I have directed a band of strong linen to be put around them, drawn together on the side next the gallery, so as not to be visible from below. When that is done, the cracks may be filled and the whole whitewashed, and the failure cannot be seen." From this it would appear that these columns stood on a wall of some height above the floor of the Senate. "Another large patch," continues the writer, "has lately fallen from the ceiling on the right of the president's chair." From these extracts the character of the whole construction may be inferred. In a later letter to the President Mr.

³ "Our maize-leaf is not less graceful in form than the lotus of Egypt, or the Acanthus of Greece, and the pillars in the lower vestibule of the Senate entrance to the Capitol, (their clustering shafts representing a bundle of reeds or stalks of Indian corn, and the capitals composed of the ear and leaf of the same plant) must be regarded as a happy inspiration of Latrobe." "It is said they attracted the notice and commendation of Thomas Jefferson."—Quoted from "Hints on Public Architecture, by R. Dale Owen," 1849, pp. 9, 10, where the pillar and capital are engraved.

In the life of Fennell, by himself, 1814, p. 417, referring to the corn-stalk columns, the author says: "Latrobe has set one noble example, why should it not be followed? We have here a sufficient number of indigenous trees, shrubs and flowers, from the emblems of which we might form an architectural system of our own. Can any nation be said to be more prolific in subjects of emblematic ornament than this? It is not only the corn-stalk and its fruit: hundreds of native productions would, under the hands of an ingenious master, form emblematic columns, and encouragement to the strength of our country by adopting them."

⁴ Jefferson's Correspondence, Vol. V., p. 578.

¹ Delivered November 16, 1881, by Mr. John H. B. Latrobe.

² Harper's Monthly Magazine of July, 1869.

Latrobe says: "No one floor in the whole building could be considered safe. Scarcely a single girder or beam was entirely sound. The tenons of the oak joists were generally rotten, and the only species of timber that has withstood decay was the pine and poplar of which the beams and pillars were made. All the white oak was seized with dry-rot, and even the beams of oak let into sound beams of pine were far advanced to decay. Almost all the plates and bond-timbers which were partially buried in the walls were in the interior reduced to powder; and, indeed, many of the pine posts on which lath and plaster columns were formed in the Senate chamber were rotten. Upon the damaged parts of such timber the brick piers of the Senate chamber stood. Independently of the general rottenness of the timber, the frequent alterations which the design has undergone in its original progress had so weakened the work, and one of the heaviest walls had been so cut down in its lower part, that whenever the timbers had given way the top must have fallen into the Senate chamber."

I have extended these quotations to account for the strong language of the architect in speaking of the necessity of a total reconstruction as well as to explain how it was that when this exposure was made all who had been connected with work of this description should, year after year, have pursued the author with vituperation and abuse.

Nor was Mr. Latrobe alone in his criticism. One of the conditions of the appropriation bill of 1805 required the north wing to be carried up "in solid work specifically." This was done by Mr. Latrobe, retaining only the position of the Senate chamber and the stairs with the exception of a part on the west side containing the library which was designed by Mr. Latrobe and rebuilt partly of wood in a manner that with this exception defied the conflagration of 1814, and entitled him to the credit of being the architect of the north as well as the south wing of the Capitol.

The materials from which much of the foregoing has been prepared have been furnished by the letter-books and portfolios already mentioned. That I should have letter-books from a date that knew not press copy-books or manifold writers, needs an explanation that might be put into a foot note, were it not connected with one who, if not an architect, was an artist, a mechanic and a scientist, and in this way near of kin to the profession whose members are before me. I refer to Charles Wilson Peale. About the year 1802, he invented what he called "a polygraph," the essential parts of which were a light horizontal rod with jointed sockets at each end, to hold common quill pens. This was connected with parallel motions, one travelling the upper part of the inclined desk, while the other was suspended from a frame above it, the two permitting the pen-rod to move the width and length of a sheet of paper. Two of such sheets were held flat by spring bars at their upper edges. The movement of the two pens being thus made identical, while the left hand one held by the writer wrote the letter, the right hand one wrote a duplicate original, which was placed in the desk drawer until a sufficient number had accumulated to be bound and indexed. Of these originals I have eighteen volumes, covering the period from 1803 to 1816, inclusive. Unfortunately, they form but one side of the correspondence, which embraces all conceivable subjects. In my father's frequent changes of residence, the other side has been lost. I do not know if there is a polygraph still in existence. If not this notice will at any rate make a matter of record of a most ingenious contrivance, the invention of one whose name is inseparably connected with the history of Art in America.¹

In 1811 Congress ceased to make appropriations for completing the Capitol. The times were unpropitious. Circumstances that culminated in the war with Great Britain were maturing, and, satisfied with the corridor of rough boards that connected the two wings, Congress postponed for a season, the erection of the central building. Among the drawings so often referred to, is one representing the east front of the Capitol as intended by Mr. Latrobe to be completed. It was engraved by Ackerman in London, and is the same that was afterwards built, although the central dome is represented as a low one, proportionate to the domes on the wings. The huge affair that was substituted for it is said to have been suggested if not directed by Mr. Adams, who was not without architectural pretensions.

A prominent feature of Mr. Latrobe's design was the grand central portico projecting from the main floor of the building with the carriage-way below, that now characterizes the old Capitol. Thornton's plan shows a shallow portico of eight columns on a level with the basement. To Mr. Adams, also, is said to be due the pitch of the pediments, in which the rules of Corinthian architecture, illustrated in the pediments of the Extension, were violated, to accommodate the allegorical figures on the tympanum.

Some idea may be formed of the surroundings of the Capitol when Congress ceased its appropriations, from a letter to the Chairman of the House Committee on Public Buildings from Mr. Latrobe, dated February 8th, 1811, suggesting the importance of levelling an area of sixty feet in front for carriages, which, he said, ought to be a hundred feet wide, and carrying a permanent platform on the south wing as far as the gallery door on the southeast corner, and, on the

north to the north door, to facilitate entrance into the court room. Except for motives of economy, he would have advised, he continues, the extension of the platforms to the western angles of both wings. In the same letter he says that if there is anything left over from the appropriation asked for, it should be devoted to the repairs of the Pennsylvania Avenue.

The Pennsylvania avenue in those days was little better than a common country road. On either side were two rows of Lombardy poplars, between which was a ditch often filled with stagnant water, with crossing-places at intersecting streets. Outside of the poplars was a narrow pathway, on which carriages often intruded to deposit their occupants at the brick pavements on which the few houses scattered along the avenue abutted. In dry weather the avenue was all dust, in wet weather all mud, and along it "the Royal George," an old-fashioned, long-bodied, four-horse stage, either rattled with members of Congress from Georgetown in a halo of dust, or pitched like a ship in a seaway among the holes and ruts of this national highway.

The Capitol itself stood on the brink of a steep declivity clothed with old oaks and seamed with numerous gullies. Between it and the navy-yard there were a few buildings scattered here and there over an arid common, and following the amphitheatre of hills from the southeast to the heights of Georgetown, houses few and far between indicated the beginning of the present city. The patent and post-office, in one huge, unornamental, barn-like brick building, occupied the place of its marble successors; and at the other end of the avenue "the White-House" had become a conspicuous object with the adjacent public offices. Still following the amphitheatre around, the eye caught a glimpse of Alexandria and rested upon the broad expanse of water where the Eastern Branch joined the Potomac, with Greenleaf's Point between the two, on which the great tribe of the Shawnees once lit its council-fires and had its fishing-ground. What this region is now, we all know; what it was then, there are still witnesses living who can tell.

Those who are familiar with the erection of public buildings to-day can hardly appreciate the difficulties that beset, on all sides, the founders of Washington. Now the telegraph will set men to work in the quarries of Maine or Tennessee to furnish building materials in Washington, with the assurance of having them delivered in little more time than was required to send a letter and receive an answer in 1800.²

When appropriations ceased, the architect's occupation was gone, and Mr. Latrobe had to look back upon eight years of struggle, mortification and abuse, which not even the exuberant praise of Mr. Jefferson, and the unflinching support of both Mr. Madison and Mr. Jefferson could compensate.

In a letter that he wrote on the eve of leaving Washington, to Mr. William Jones, then Secretary of the Navy, Mr. Latrobe says: "When I was appointed Surveyor of the Public Buildings of the United States, all the persons formerly employed had been dismissed. My system was totally in opposition to that formerly established. Every step I have taken for ten years past has been watched and reported, and the members of Congress have been besieged in detail with complaints of my arbitrary extravagance. The Federal papers have been filled with abuse of me, and yet these very men erected the north wing—a building half finished only—at the expense of \$330,000, of lath, and plaster and rotten wood internally, paying five and a half dollars for stone per ton, and five to six dollars per thousand for bricks; while the south wing, in quantity and quality of materials of three times the value, vaulted throughout and sculptured and painted, stone costing from six to ten dollars per ton, bricks from seven to eight dollars per thousand, was built by me for \$274,000." It may be admitted that it was not in ordinary human nature for these men to see quietly the exhibition of their incompetency which the process of substitution and reconstruction developed, and hence the abuse which was heaped upon the architect, in the hope that, as Hallett and Hatfield had been crushed he would be crushed too. Unmoved by it all, Mr. Latrobe, with the confidence of the two Presidents under whom he served, resisted successfully to the end.

Architects were not regarded in the United States socially, as a general rule, at the beginning of the century as they are now. In a letter to Volney, dated July 11, 1811, Mr. Latrobe says: "Thinking only of the profession and of the affluence which it yields in Europe to all who follow it, you forget that I am an engineer in America; that I am neither a mechanic nor a merchant, nor a planter of cotton, rice, or tobacco. You forget—for you know it as well as I do—that with us the labor of the hand has precedence over that of the mind; that an engineer is considered only as an overseer of men who dig, and an architect as one that watches others who hew stone or wood. But, in fact, the profession is becoming by degrees better known and respected." It may be added that in this respect things indeed have changed in eighty years.

Too brave to yield to mere opposition, however violent, too proud to conciliate by flattery to avert it, confident that his works would be his vindication, Mr. Latrobe's voluminous correspondence shows throughout that he never lost sight of the dignity his profession re-

¹ In a letter to Mr. Jefferson, dated October 2, 1803, Mr. Latrobe, speaking of the polygraph, says: "I am not yet entirely master of the motion, so as to write exactly the same hand which a single pen produces; but in an hour's practice I learned to write with the same ease and rapidity as with a common pen. I doubt not you have heard of the machine, and perhaps you possess one of them. What I have written on the other side is a specimen of the truth with which a copy is made."

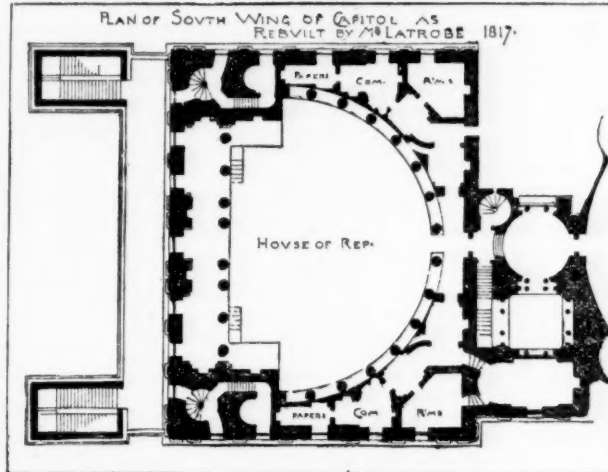
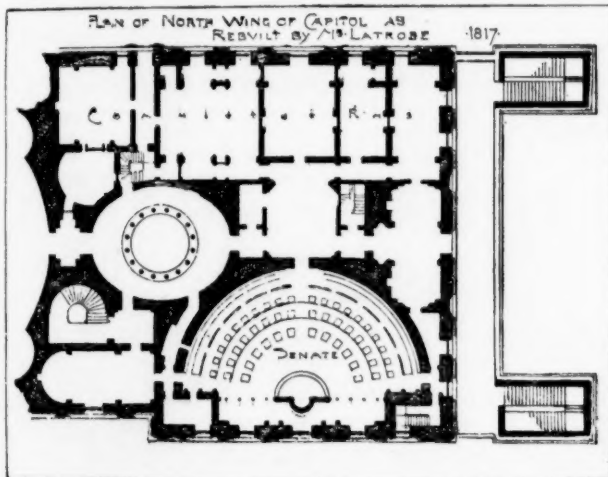
² In a circular addressed to members of Congress in 1806, Mr. Latrobe explains the delay in the execution of public work in Washington from the beginning. It is in itself an interesting history. I am not aware that there is more than a single copy in existence, which has been carefully preserved in the library of the Maryland Historical Society.

quired him to maintain; and as he loved it, so he fought for it, and, in the end, he won.

It would not be right to omit, in an account of the Old Capitol, several whose names are associated with it. Lenthall, the clerk of the works, a man of singular ability, I have already mentioned. Another was George Blagden, of the same type, who was in charge after Hallett and Hatfield and Hoban left. Then there were Andrei and Guiseppe Franzoni, brought, at Mr. Jefferson's instance, from Italy, in 1805—the first a sculptor of architectural decoration, and the other of figures. Besides their own handiwork, they instructed others, and in one of Mr. Latrobe's letters he speaks of four Americans, taught by Andrei, engaged upon the Corinthian capitals of the Hall of Representatives.

It was Franzoni who modelled the corn-stalk columns already referred to, and a statue of Liberty, which, with other of his works, was destroyed when the Old Capitol was burnt. He was followed in 1815 by his brother, Carlo Franzoni, a man of decided genius, great readiness, and a thoroughly educated sculptor. He modelled the figure of History in her Car, with which we are all familiar, in the present Hall of Statues; also, figures of North and South Carolina, represented as sisters, the arm of one around the neck of the other; also Massachusetts and Maine, a mother leading her child, for Maine was as yet a district only. These were figures of the heroic size, a part of a series intended by Mr. Latrobe to have places in the building. Another work of Carlo Franzoni is the figure of Justice in bas-

And so the Capitol remained for years, and Dr. Thornton and Hallett and Hatfield and Hoban and Latrobe had passed away; their strifes forgotten and their names even sounding strange to the new generations that were treading on their graves, until the growth of the nation, the increasing number of its representatives, a greater refinement and a larger luxury, and especially the conviction that Washington was now and forever to be the permanent seat of the Government of the United States, required the Capitol to be extended. Of how this has been done, by Thomas U. Walter, I can scarcely speak in his presence as I would like to speak, could I find words to do justice to the last architect of the vast pile that now looks down upon the federal city. The pupil of Strickland, as Strickland was the pupil of my father, it has been with me a pleasing fancy for more than a quarter of a century to believe that there was in some faint way a law of descent applicable under the circumstances, which connected the architect who clothed Thornton's skeleton with sinew, and muscle, and beauty, until the whole creature became his own, with his brilliant, refined and accomplished successor, who, at the head of a profession socially to-day without a superior has absorbed all that has been done before in what is now the Capitol—who, making the magnificent dome on whose iron sheets the hammer never ceased to ring during the war that threatened to make the whole structure worthless, the controlling feature of the design, has screened with it all the exterior littlenesses of a "vitiated taste," and made even the incongruities of the Italian Renaissance subserve



relief in the law library of the old north wing. Other sculptors followed these: Cousici, Capellano, and more; but with the old Capitol the name of Andrei and the Franzonis are more especially connected.

After the burning of the Capitol, Mr. Latrobe was called from Pittsburgh, where he had been engaged in introducing steamboats on the Western waters, to rebuild it in 1815, and there is a letter from him to Mr. Jefferson, describing the condition in which the flames had left it. After referring to the injury done to the various parts of the building, Mr. Latrobe says: "In the Hall of Representatives the devastation had been dreadful. There was here no want of materials for conflagration, for when the number of members of Congress was increased, the old platform was left in its place and another raised over it, giving an additional quantity of dry and loose timber. All the stages and seats of the galleries were of timber and yellow pine. The mahogany desks, tables and chairs were in their places. At first rockets were fired through the roof, but they did not set fire to it. They sent men on it, but it was covered with sheet-iron. At last they made a great pile in the centre of the room, of the furniture, and, retiring, set fire to a quantity of rocket stuff in the middle. The whole was soon in a blaze, and so intense was the flame that the glass of the lights was melted, and I have now lumps weighing many pounds run into mass. The stone is, like most freestone, unable to resist the force of flame; and I believe no known material would have been able to resist so sudden and intense a heat. The exterior of the columns and entablature scaled off, and not a vestige of fluting or sculpture remained." The several blocks out of which the columns had been made yielding unequally to the fire, rested the edge of one on an inner portion of another, and the wonder was that such a skeleton continued to stand even for an hour. So fragile, and yet so massive was it, that the laborers hesitated to venture within the spectral colonnade. Finally, by piling cord-wood between the columns up to the entablature, it became safe to use the ordinary means for its removal.

It is not necessary to describe how the oblong hall of the old Capitol was changed into the semicircle of the present hall of sculpture; or how the breccia columns took the place of the sandstone ones from Acquia Creek, or the other alterations with which you are all familiar. In 1817 Mr. Latrobe resigned as architect, and Mr. Charles Bulfinch, an architect of ability and skill, a refined and courteous gentleman, was appointed in his place, and carried out, with little change, Mr. Latrobe's design.

the purposes of genius.¹ Nor can I close an address, whose length I know must have taxed your patience, better than by quoting from the corner-stone of the Capitol Extension the grand words that Webster placed there:—

"If, therefore," thus ends the inscription, "it shall hereafter be the will of God that this structure shall fall from its base, that its foundation be upturned and this stone be brought to light, be it known that on this day the Union of the United States of America stands firm; that the constitution still exists unimpaired, and with all its original usefulness and glory, growing every day stronger and stronger in the great body of the American people, and attracting more and more the admiration of the world. All here assembled, whether belonging to public life or to private life, with hearts devoutly thankful to Almighty God for the preservation of the liberty and happiness of the country, unite in sincere and fervent prayers that this deposit, and the walls and arches, the domes and towers, the columns and entablatures now to be executed over it may endure forever. God save the United States of America."

PICTURES IN NEW YORK.—IMPORTATIONS, AUCTION SALES, AND EXHIBITIONS.

NEW YORK, January 15th.



THE chief attraction for our lovers of art during the early winter lies in the dealers' shops. It is pleasant to record that year by year their contents grow not only more profuse and costly but higher in their general average and more varied in their composition. This season, in addition to the works of men who have long been famous and whose works have long commanded whatever sums might be asked for them, the list of importations has included many clever and admirable things by younger, less widely celebrated men—things which are dependent for their attraction upon their intrinsic excellence, and are not advertised by the glory of an already canonized name. Apart from the pleasure one has in seeing new things, fresh from the workshops of the younger schools and the walls of the most recent foreign exhibitions, one rejoices at

¹ Edward Clarke, Esq., the architect now in charge of the Capitol, is a pupil of Mr. Walter, thus continuing the fanciful law of descent referred to in the text.

the fact of their presence as imported, by those who have the best means of gauging public taste, in the sure belief that they will find ready purchasers among our people. Every amateur who desires — from motives worthy or unworthy — to form a "collection" or to adorn his parlors with pictures that will be coveted as well as admired by his friends, knows by this time that a Corot, or a Millet, or a Diaz, or a Munkácsy is the right thing to purchase — is a good investment, moreover, that will at any time stand him in as much as he must now be willing to pay for it. But the present importation of fine pictures by rising men proves that the dealers can now reckon upon a still greater amount of discrimination in their customers than this. The agents who have been in Paris during the past summer — as well as the artists and other tourists who had means of informing themselves — unite in bearing testimony to a fact that has often already been stated in our journals — the fact that French amateurs are becoming exceedingly jealous not only of the purchasing power but of the growing good taste of American buyers. They all join in the lament that was raised last spring by the critic of the *Figaro* — "*L'Amérique absorbe et ne rend pas!*" They all deplore the fact that so many examples of what has undoubtedly been the great school of the century — the landscape school called of Fontainebleau — are yearly crossing the Atlantic. There was a cry of anguish raised at the rumor — unfounded, alas! — that Millet's *Angélus* had been bought by an American. More recently there was an earnest appeal to French amateurs not to let too many of Courbet's pictures — recently sold at auction in Paris — go over the water. In short, it is already said in Paris, as one of our dealers expressed himself to me, that in ten years Frenchmen may have to cross the Atlantic to make themselves acquainted with the best works of that generation of their painters which is just passing away.

We may console ourselves for not getting the *Angélus*, perhaps, by the thought that the second example of Millet's *Sower* — the first being already owned in Boston — has been purchased by Mr. Cottier. It has not yet arrived here, permission having been granted to Matthew Maris to first make an etching from it. Other Millet's have, however, reached us during the past few months, one, the small *Gleaners*, and another, a beautiful bit of coloring in brilliant blue tones, the figure of a woman drawing water from a well. Both of these were to be seen in Mr. Avery's gallery. The Diaz specimens have been very numerous. Mr. Knoedler could show at one time a series of very various canvases representing not only the different periods of his career and his changing power, but also almost all the subjects he was wont to illustrate. It was a collection that one longed to buy in bulk and preserve intact, as an unrivalled monument to one of the greatest of modern painters. Daubigny, Corot, and Dupré have also been well represented, and Mr. Avery exhibited a *Sunset* by Rousseau, perhaps the finest example that has ever come to this country of the brush which many have called, and without injustice, the finest in an altogether admirable school. The list of more recent but equally well-known names has included, in good examples, Van Marcke, Kaemmerer, Boldini, Kowalski, Henner, and a score of others. Mr. Cottier, as usual, has had a fine assemblage of small canvases from the brushes of that contemporary Dutch school with whose excellence he first made us acquainted. His gallery is quite different in effect from those of other dealers. He does not pretend to meet the taste of every corner, even within the lines of the most admirable production. He has his own very decided views and preferences, buys apparently in accordance with those views, and imposes — taking the word in its French sense only — those preferences upon his patrons. Not only does one never see a bad picture of the popular sort in his rooms, but rarely one that is out of harmony with the bulk of the collection. The Dutchmen of whom I have spoken, the great French landscape painters, Roybet — in his earlier and finer styles when he might have signed "*Velasquez*" to his canvas — Monticelli, and such as these are present, with a few Americans like Bunce and Albert Ryder; but no more mundane souls, and no Spanish-Roman pyrotechnists. Perhaps the finest Dutch picture that the season has yet shown, however, was at Mr. Avery's — a portrait-head by Mettling, wonderful in color, in handling, in vitality, but most wonderful in its exquisite, unforced tone — a picture which proved that the greatest triumphs of the seventeenth century Dutchmen may yet be rivalled by their descendants still to come.

Among the chief attractions at Mr. Knoedler's have been two pictures by Munkácsy, much more important than the hasty and rather shallow, though always brilliant interiors we have recently seen so often from his brush. One was a splendid still-life with flowers which must silence forever the question as to whether or no he is master of the most beautiful color. The other was a garden scene with figures so typically modern, so visibly of the everyday world around us, yet so noble in their artistic transcript, and so much more vital and interesting than any portrayal of by-gone days could be, that one hopes it may encourage all young painters who saw it to draw their motives also from the world that is nearest them and the day in which they paint. Less fine as art than these two pictures, but more immediately attractive to the public that cares for a striking subject, was De Neuville's *Captured Bearer of Despatches*. It was a clever piece of workmanship, of course, but infused with the sort of patriotism that has no place in art, and so exaggerated in its German types as to fall within the domain of caricature — a philippic or an indictment rather than a simple, artistic statement upon canvas. This picture came from the last Paris *Salon*, as did also

Jules Bréton's study of a single figure called *Une Femme d'Artois*, which hung upon the same walls. Other *Salon* pictures of last spring included Renouf's *Coup de Main*, bought by Mr. Schaus before the French Government could secure it for the Luxembourg. It showed the figures of an old fisherman rowing a boat, and assisted in his labor by his tiny granddaughter. The painting was extremely realistic — a little hard, perhaps, but strong and clever; and the old man's face was a triumph of successfully rendered expression. Another canvas that had been one of the "show pictures" of the *Salon* was to be seen at Mr. Avery's, painted by a young artist named Villa, few of whose works had previously been brought to this country. It represented two girls in mediæval dress, one of whom was playing on an antique organ that she held in her lap. The instrument, we were told, had been copied from an original in the Louvre, and the exceedingly gorgeous costumes were historically most exact. That attention was called to such facts proves the nature of the picture. It was a clever piece of composition, brilliant but evidently studied in color, admirably painted in the magnificent stuffs and accessories, but unvital in the figures, and wanting throughout the accent of genuine feeling, even of a technical sort. It was not "realistic" art, still less was it idealizing art. And there was no trace in it, moreover, of the intense pictorial impulse which lies behind such splendid improvisations as Roybet's, such brilliant translations of actuality as Fortuny's, or such fervent fantasies as those of Diaz or Monticelli. In a word the canvas was "decorative" and little more. But it was most interesting as showing how far art may go in that direction; and one did not wonder that at the *Salon* it has attracted more attention than many more sincere and important paintings.

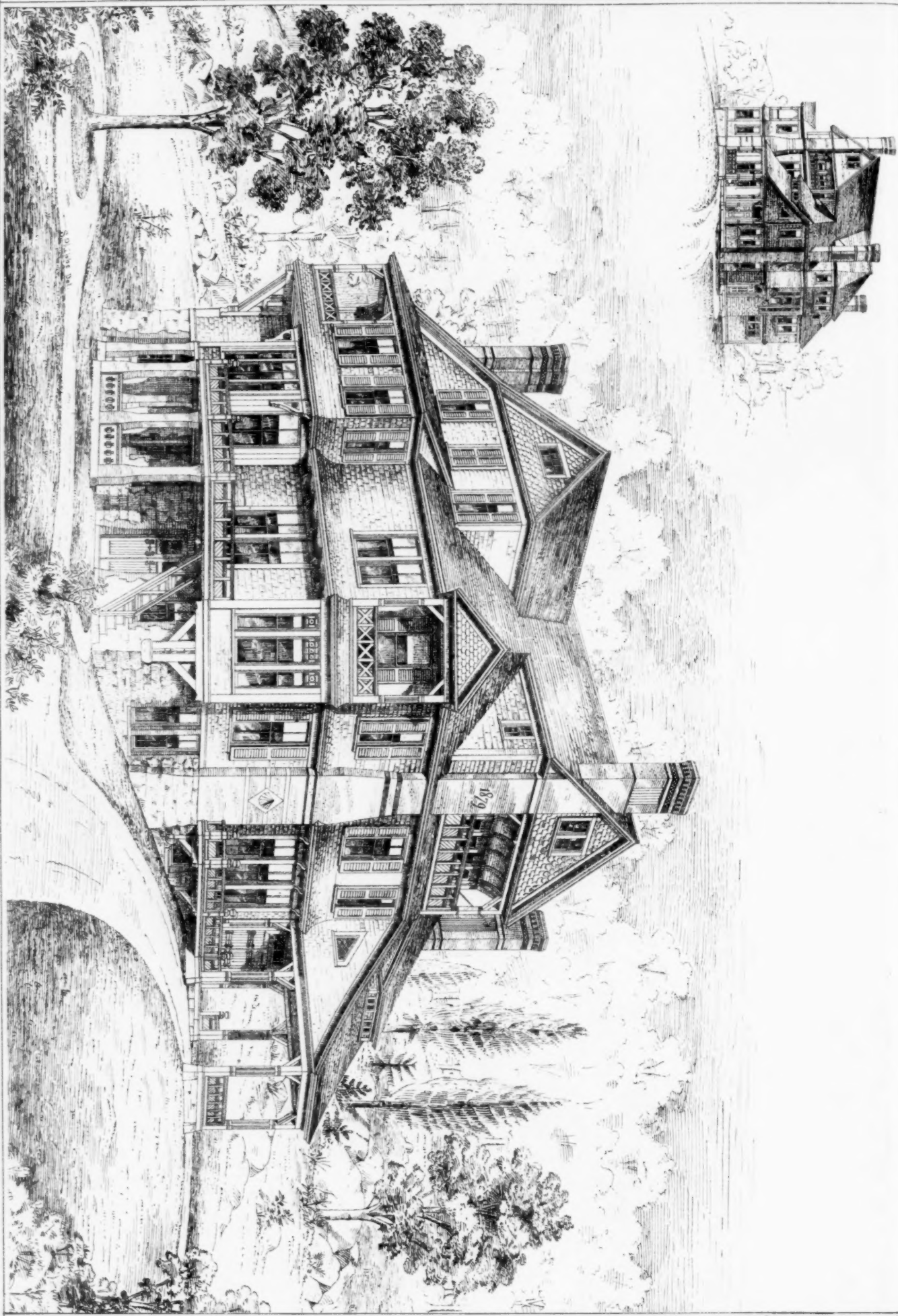
Among the most exquisite things of the season were two little pictures to be seen at the Messrs. Reichard's — a half-length of a woman by Alfred Stevens, showing this variable artist at his very best, and quite justifying the immense estimation in which he is held by the members of his craft; and a landscape with the figures of a woman and a child on horseback by Jean Goubie, than which nothing could have been lovelier — more perfect in drawing and in character, more attractive and fresh in motive and composition and in the human types portrayed. It sufficed to show the most skeptical that no striking novelty in subject, in handling, or in the color scheme employed, is needed for the composition of a work that shall not recall any we have ever seen before — that shall be quite perfect and delightful in a thoroughly original way.

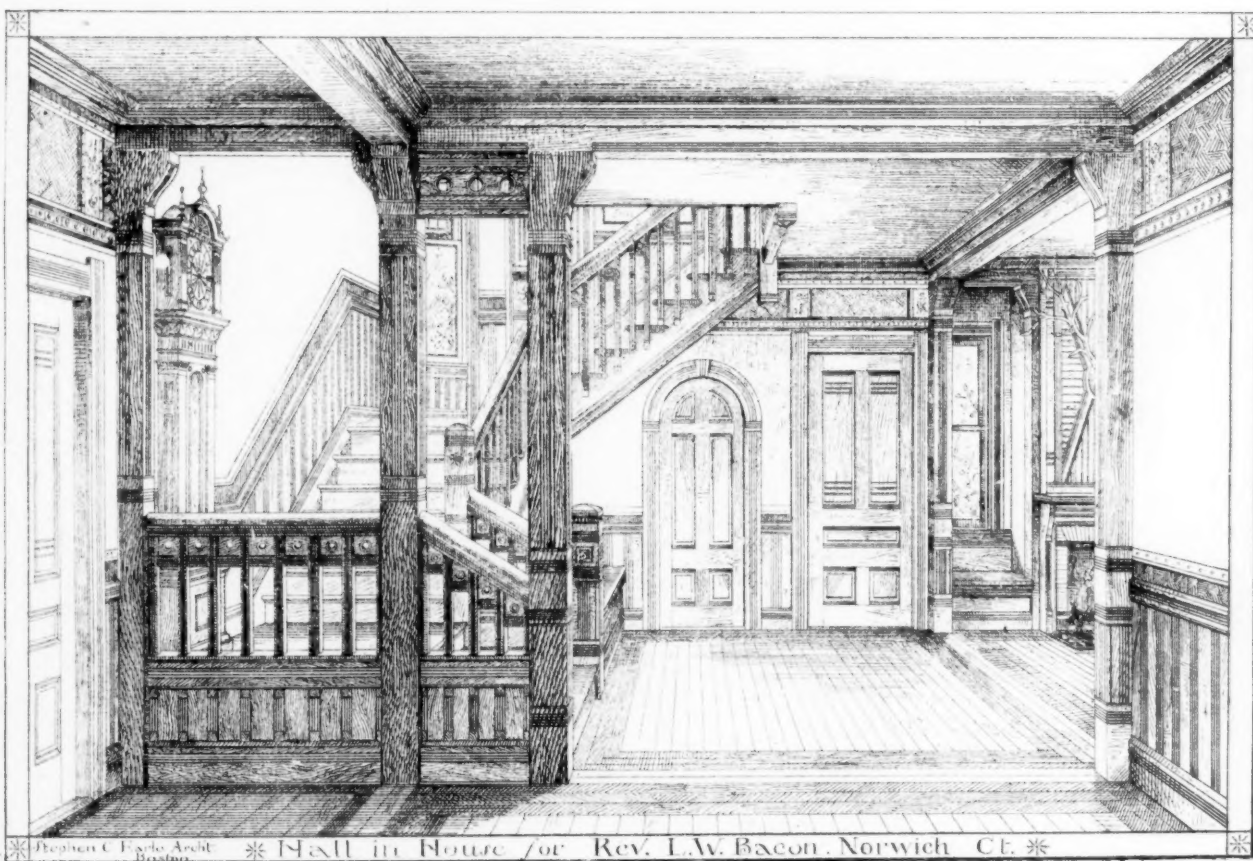
Many American pictures are always to be seen at the Messrs. Reichard's; among them this autumn have been several from the brush of Mr. E. L. Weeks, one of the most prominent members of the American colony in Paris. His work, chiefly *Oriental genre* subjects, shows ever increasing mastery of color and of composition. It is likely that we shall see little of it in this country for some time to come, however, as Mr. Weeks has just agreed to deliver all that he can accomplish during the next few years into the hands of a Parisian dealer. Very few new pictures of home production have been shown at the "American Art Gallery." Here the principal attraction has been the proprietors' annual importation of Chinese ceramics, more extensive and more beautiful, I think, than ever before. The majority of the pieces were single-color specimens, some of the greatest beauty, their forms as admirable as their rare and perfect tones. Special exhibitions have been few. Mr. Walter Blackman returned from Paris with a collection of pictures and sketches which he showed on the same walls where Mr. Bridgman's hung last winter. Comparison was inevitable — by reason of the locality, not of any similarity in the work of the two men. Mr. Blackman has been a conscientious student and his pictures — portrait studies, Venetian views, and Swiss lake scenes — showed good training and fair ability. But they were not interesting and no one pretended to be much interested in them. The immense collection of "monotype prints" shown by Mr. Walker of Boston had a commercial success, but excited only a short-lived discussion of their merits. If there had been fewer of them and if their advent had not been quite so loudly heralded, his work would have seemed less like a financial and more like a genuine artistic experiment. Many of them were very charming, but many bore an evident impress of deliberate manufacture.

While many pictures have, as usual, been sold at auction in various establishments, there has not yet been any important sale accomplished or announced. One or two such usually enliven our winter, but we have this year anticipated in vain. It is true that Mr. Fales of Philadelphia was a noted collector and that the effects he left at his death were sold in this city a month or two ago, the collection twice filling two large apartments. But it was in greater part a collection of good commercial ware and not of art objects. There was a long list of pictures, most of them belonging to the Düsseldorf school, in favor here a few decades ago. Nothing could have proved more decidedly the change that has come over our taste than the depressing effect which these pictures seemed to exercise upon the majority of spectators. Though some of the canvases were good in their way, it was certainly a most mechanical, inartistic, and melancholy way. Then there was an immense collection of glass and pottery, Oriental and European, containing some nice specimens, but made up almost entirely of what was simply average modern glass and china for table use, — whole dinner services in abundance and useful articles without number. The things had, however, never been put to their proper use, but had been ranged about on

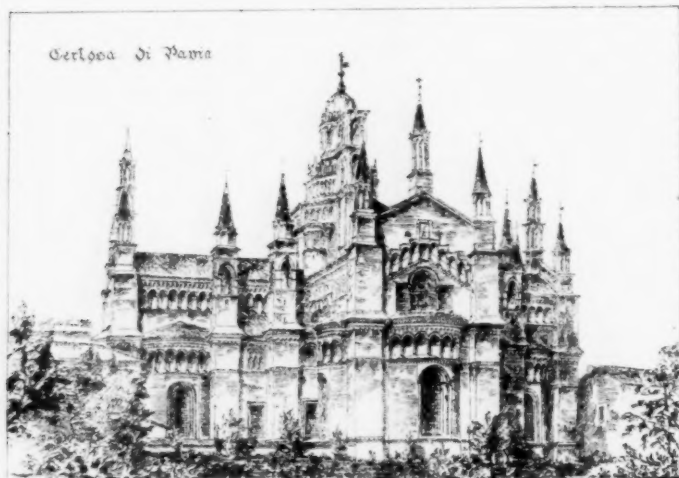
COURTESY, THE JAMES HARRISON & CO.

House for Rev. L. W. Bacon * Norwich Conn. Stephen C. Earle Architect. Boston.





* Hall in House for Rev. L. W. Bacon, Norwich, Ct. *



Certosa di Pavia

THE BUILDING WORLD



Triumph of Renaissance.

German Paper

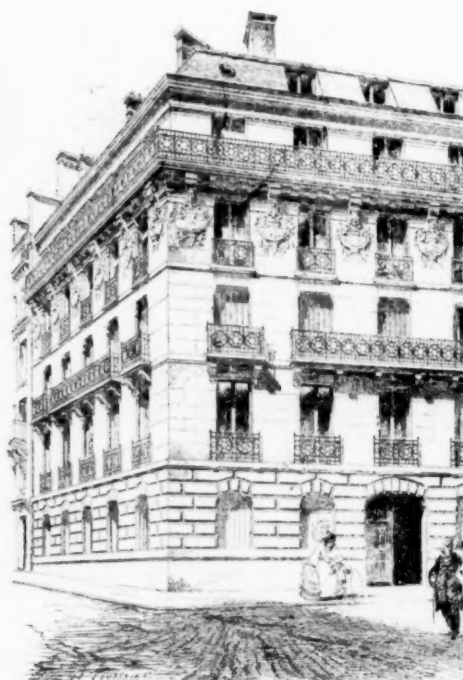


The Building News.

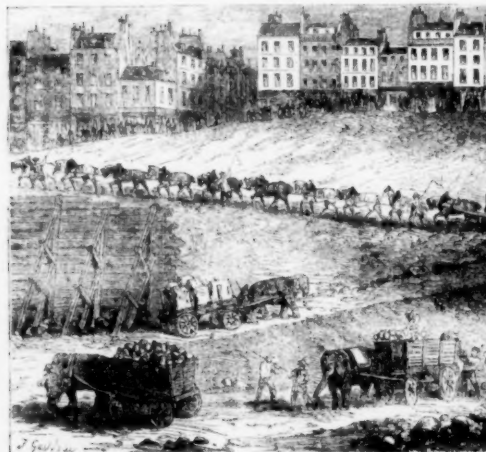
ELY CATHEDRAL TOWER AND CHAPEL OF THE COLLEGE

DRAWN BY J. DONKIN

W. H. & G. P. Printing Co. 111. Front St. Boston.



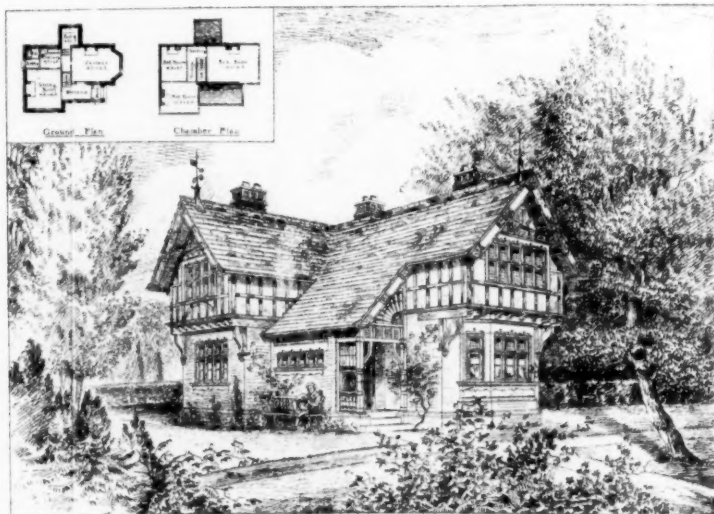
MAISON, rue Massieu. — Architect: M. E. VASSIERE. — Dessin de J. D.



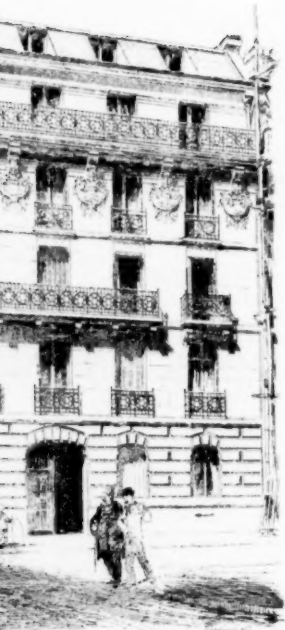
Municipal Elephants Paris



ST. PAULUS-KIRCHE ZU WORMS.



Lodge at the Brambles, Chesterfield, for T. P. Wood Esq. W. Stanton Arch^t

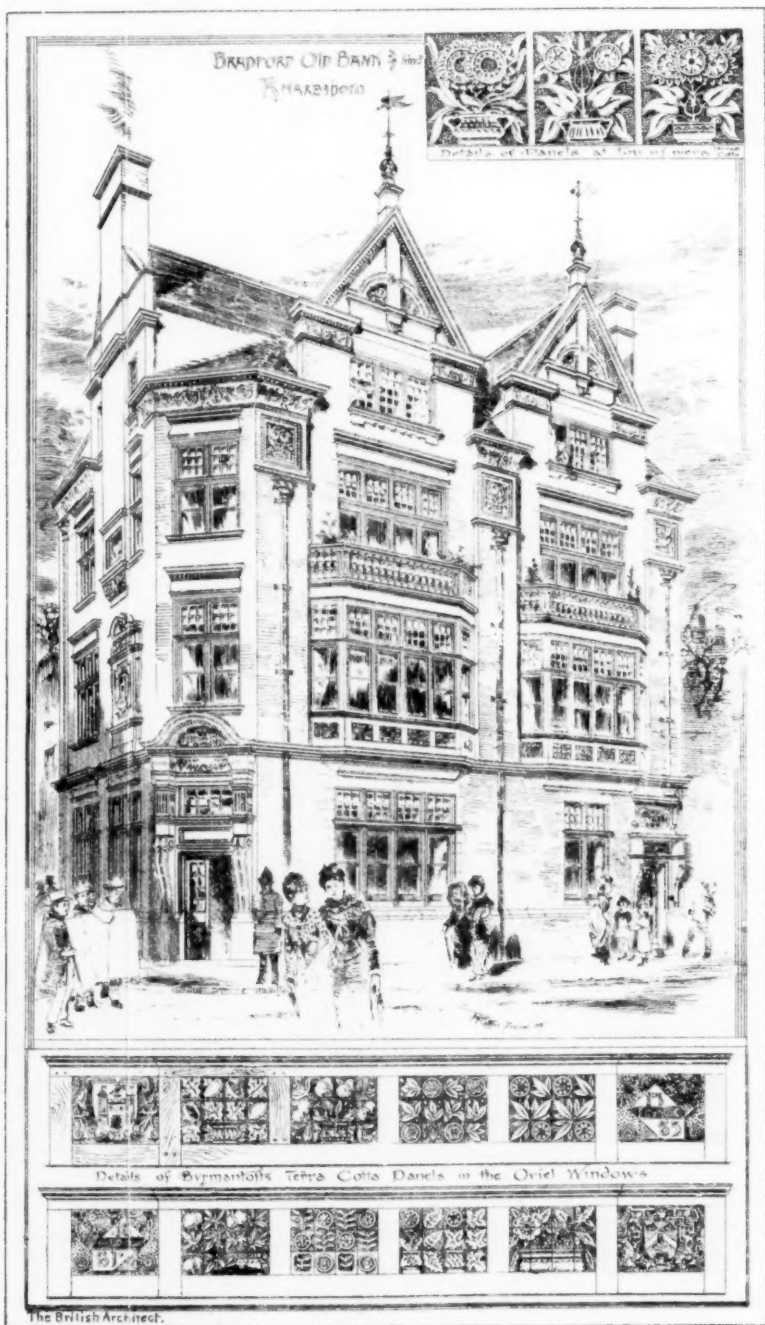


ARCHITECT. — DESIGNS BY H. THOMSON.



L'Architecte.

Paris



The British Architect.

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shelves to form a "collection." The library was miscellaneous and not in over good condition. And a large collection of prints was in a very bad condition, and were, moreover, so insufficiently catalogued that the would-be purchaser was quite at sea. The catalogue was, on the whole the most curious part of a rather curious show. Outwardly it was the most magnificent ever got up in this country, a thick octavo with fine paper and wide margins and many illustrations. But upon examination it proved to be the most extraordinary mass of mistakes and absurdities that can ever have been given to the world under the name of a catalogue.

The regular exhibition season opened in December with the collection of Black and White art under the auspices of the Salmagundi Sketch Club. The Etching Club will this year exhibit with the Water-Color Society and the vacant place it left upon the walls of the Black and White exhibition greatly detracted from their interest. The number of wood-cuts was small, and there was a greater scarcity than one had hoped for in the way of good specimens of designs for reproductive work. The bulk of the collection was made up of work that had no relation to reproductive needs— independent, self-sufficing pictures in black and white oils, charcoal, and aquarelle. In this direction there were many admirable things to be noted. Landscape work predominated vastly over figures, and marines and coast-scenes over other departments of landscape. Some of these last, especially the efforts of Mr. Quartley, Mr. Burns, Mr. Brundige, and Mr. F. S. Church, were very good indeed. Altogether it was a most interesting and satisfactory exhibition, if one accepted the things it offered and did not think too much of the desirable things that were not present—the good figure designing we should like to see put at the service of our illustrators, and the spontaneous sketches, chosen from the summer's portfolio, which should form a more important feature in such an exhibition.

The Metropolitan Museum opened in October its new loan collection of pictures and displayed for the first time some of the permanent additions it had recently received—the King collection of gems, the architectural casts presented by Mr. Richard M. Hunt, the Venetian glass given by Mr. James Jackson Jarves, and the antique glass, called the Chauvel collection, presented by Mr. Marquand. Of these I hope to have a word to say at some future time.

M. G. VAN RENSSLAER.

THE ILLUSTRATIONS.

HOUSE FOR REV. L. W. BACON, NORWICH, CONN. MR. STEPHEN C. EARLE, ARCHITECT, BOSTON, MASS.

This house is built with a basement of stone quarried from the site, with brick finish. The superstructure of wood has an oil finish without paint, the materials of the outside being white pine, and California redwood shingles. The inside is finished in native woods without paint.

COTTAGE FOR J. A. ROOSEVELT, ESQ., NORTH OYSTER BAY, LONG ISLAND, N. Y. MR. BRUCE PRICE, ARCHITECT, NEW YORK, N. Y.

This cottage, which will cost about \$20,000, is after a type of house that has long existed on the island.

LODGE AT THE BRAMBLES, CHESTERFIELD, ENGLAND. MR. WALTER STANTON, ARCHITECT.

[From the *Architect*.]

A SUGGESTION FOR THE EMPLOYMENT OF ELEPHANTS IN MUNICIPAL WORK.

[From *l'Architecte*.]

HOUSE ON THE RUE MAGELLAN, PARIS, FRANCE. M. EMILE VAUDREMER, MEMBER OF THE INSTITUTE, ARCHITECT.

[From *La Semaine des Constructeurs*.]

BRADFORD OLD BANK. MR. T. G. ANDREWS, ARCHITECT.

[From the *British Architect*.]

THE TRIUMPH OF THE RENAISSANCE.

[From *Fliegende Blätter*.]

ST. PAUL'S AT WORMS.

[From *Die Deutsche Bauzeitung*.]

TOWER OF ELY CATHEDRAL AND COLLEGE CHAPEL. DRAWN BY MR. J. DARKIN.

[From the *Building News*.]

SKETCH OF THE CERTOSA AT PAVIA, ITALY.

[From the *Building World*.]

THE SEVERN TUNNEL.—The total length of the Severn tunnel is 3,701 metres (2,305 miles). The longest gallery was begun in January, 1875; in October, 1879, the work was interrupted by an invasion of fresh water, when the galleries were within 39 metres (42.65 yards) of meeting. After pumping out the water the work was resumed in August last, and completed in a very satisfactory manner. The breadth of the galleries was only 3 metres (9.843 feet); one of them had an inclination of one foot per 100, which increased the difficulty of surveying; nevertheless, the Monmouthshire section, of 3,081 metres, and the Gloucester section, of 620, met without any perceptible deviation. The duration of the work was four years and ten months, including all delays except that of eighteen months which was caused by the irruption of the water. The time was lengthened by the narrowness of the galleries and the nature of the rock, which was found to be very hard for more than one-half of the length of the tunnel.—*Annales des Ponts et Chaussées*.

REPORT OF THE COMMITTEE ON PUBLICATIONS, A. I. A.

To the American Institute of Architects:



YOUR Committee on Publications—consisting of Messrs. R. M. Upjohn, T. M. Clark, John McArthur, Jr., A. J. Bloor, and H. M. Congdon—respectfully report in reference to the issue of the Proceedings of the last and Fourteenth Convention that a paper on the "Ventilation of Halls of Audience," prepared and read by Mr. Robert Briggs, C. E., a Corresponding Member of this Institute, was published in pamphlet form—larger than the whole Proceedings of the Institute—by his professional society, while the *American Architect* published the other papers and the reports prepared in behalf of special committees, which were read at the Convention, to wit: Mr. Mason's, "On the Practice of American Architects during the Colonial Period and the First Fifty years of Independence;" Mr. Bloor's, on "A Better Method of Dealing with the

Tenement-House Problem, especially as presented in New York City;" Mr. T. M. Clark's, on "A New Manual of the French Building Law;" and Mr. Tudor's on "Heating and Ventilation." The remainder of the Proceedings was published by your Committee, through the editorship of Mr. T. M. Clark, in the smaller pamphlet form adopted for the last three issues, and included President Walter's address, the reports of the Standing Committees and Chapters, and a summary of the debates on the proposed changes in the Constitution and By-Laws. The list of members in the appendix included all who have ever been on the books of the Institute since its foundation, and involved a laborious and time-consuming search as to the main fact and its sequences. It was thought that this exhaustive list, in connection with the circular letter issued by the trustees in July, might induce the return to the fold of many members who had never followed up their application and election by qualifying in a financial sense, or who had resigned, or lapsed from non-payment of dues; and the correspondence of the Secretary shows that this has so far been the case to some extent; but owing to the customary, but none the less regrettable delay in the publication of the Proceedings, it is too early yet to say to what extent these results may reach.

Your Committee is informed by the Secretary of the Institute that he has no supply wherewith to meet a still small but increasing and always important demand, on the part of historical, literary, and educational bodies for the earlier numbers of the Proceedings, notably for those of the First, Second, and Seventh Conventions. He had much difficulty in complying with the request of the authorities of the Congressional Library at Washington, the Astor Library of New York, and the Young Men's Christian Association for complete sets, and has been obliged to inform others that he will not be able to supply their wants unless he can collect duplicates from members. These facts are noteworthy as indicative of the growing public interest in national architecture and its representative organization, and of the desirability of meeting this interest in a worthy manner.

The Secretary of your Committee received on the 13th of last May from the publishers of the *American Architect and Building News*, in answer to his inquiry whether that serial might now be considered a commercial success, the assurance that it "is now permanently successful." This announcement will be a source of gratification to all who realize that no profession can achieve its maximum rank and influence without the practical application of its own literary element to the apprehension and good graces of the community among which and by which it subsists; and it will gratify above all those who remember the efforts made by the Institute ever since its foundation in 1857 (from which time until the outbreak of the civil war *The Crayon*, edited by Mr. John Durand, reported its Proceedings) to secure the establishment of a fitting organ of the profession in this country, and it furnishes a fitting and the first proper occasion to summarize the Institute's share in the work, which may be done simply by stringing together a series of excerpts from the published Proceedings, and chiefly those portions embodying the successive annual reports of this Committee. At the very First Convention held in 1867, the Committee adverts regretfully to "the absence of any official journal in which to publish the Proceedings of the Institute." At the Third Convention in 1869, the Committee reported that an arrangement had been made with Messrs. Western & Co., publishers of *The Engineering and Mining Journal*, to issue therein "such papers and official documents as might be furnished by the Publication Committee," and also to advertise and sell the Proceedings. This arrangement, as further appeared from the report, was made for local reasons, in preference to one offered by the publishers of the *Architectural Review and Builder's Journal*, of Philadelphia, which requested the privilege of publishing the papers of the Institute in that journal. At the next and Fourth Convention (1870), the papers that were printed under this agreement in the *Engineering and Mining Journal* are specified. At the Sixth Convention (1872) the Committee reported that "an arrangement was made with Mr. Van Nostrand, the well-known publisher of scientific works, for

the sale of the publications of the Institute, which has proved to be very satisfactory. Your Committee begs leave to call especial attention to the offer of Mr. Van Nostrand to publish, from time to time, in the *Eclectic Engineering Magazine*, papers that may have been read at Chapter meetings, or abstracts of the proceedings of these meetings, if forwarded to this Committee. The Committee has also received a letter from the editor and publisher of the *Building News*, of London, England, tendering this interesting and valuable publication gratis to the Institute, and offering to insert in its numbers whatever this Committee may forward to it for publication." And, at the same Convention, a resolution was adopted "that it is expedient that a periodical be issued at stated intervals by this Institute, or under its entire control, which shall exhibit the more meritorious architectural works executed or projected on this continent."

At the succeeding and seventh Convention (1873) the committee gave details of offers made by several publishers, one of whom, it appears "predicted that an Institute Journal when once fairly started, could be sustained by advertisements." The Committee also reported that "on the part of a committee of the American Society of Civil Engineers the secretary of that organization has addressed the inquiry to this Institute, whether in the event of a journal being published by the American Institute of Architects the Society of Engineers could join us." The record of the next Convention, the eighth, (1874) includes the following from the Committee: "the subject of a journal to serve as the organ, more or less direct, of the Institute, has been mooted within the Society ever since it was first organized. It was not, however, until the Convention at Cincinnati two years ago, that it took shape necessary for formal action by this Committee of the Institute. During the year ensuing your Publication Committee did a great deal of work in this matter, but failed to secure the co-operation of a publisher on terms favorable to the Institute."

"Early in the present year, however, your Committee received a letter from Messrs. James R. Osgood & Co., the well known publishers, expressing a desire to confer with them on the subject. After consultation with the Committee, as stated in a circular issued to members last March, that firm offered to assume the entire commercial risk of the undertaking, so that the funds of the Institute should not be treasured upon. Their proposition was based upon the understanding that the Committee should undertake for one year at least, to furnish without charge to the publishers, such drawings and literary matter as might be necessary to conduct the publication on the proposed scale." The report goes on to give details and concludes with a letter from Mr. James R. Osgood, the publisher, on the subject.

At the same meeting a Special Committee on the proposed journal was appointed, which reported as follows:

TO THE AMERICAN INSTITUTE OF ARCHITECTS:—

"Your Special Committee on Journal respectfully report the following preamble and resolutions, and recommend their adoption by the Convention."

"Whereas, The Convention has learned from the report of the Committee on Publications that Messrs. James R. Osgood & Co., of Boston, are proposing to publish an architectural journal of the same general character as that heretofore proposed by the Institute,

"Resolved, That the Institute abandon its intention of editing and publishing a professional journal, and will cordially co-operate in promoting the success of Mr. Osgood's undertaking.

"Resolved, That the Board of Trustees and the Committee on Publications are accordingly relieved from the duty imposed upon them by the action of the Cincinnati and Chicago Conventions, and are instructed to assist Mr. Osgood's publication by all means in their power.

"Respectfully submitted,

"H. A. SIMS,
"CARL PFEIFFER,
"W. R. WARE,
"C. C. HAIGHT,
"A. J. BLOOR."

NEW YORK, 14th October, 1874.

The report was accepted, when, Mr. Haight, from the Committee, offered the following resolution, which was adopted unanimously:

"Resolved, That the Committee on Publications be directed to either assume the entire responsibility and control of the journal, or else to withdraw in behalf of the Institute from all connection with the publication.

The Committee were not yet quite out of the woods, however, for the Proceedings of the following and Ninth Convention (1875) show, in some letters culled from the correspondence between the publishers and the Secretary of the Institute, that the project had got no further than the rough proof of a prospectus of the proposed journal, to which—apropos of the objection, emphasized in the resolution just read, to an official connection between the Institute and the proposed journal—the publisher says he hopes to add, after the action of the current Convention, the words, "The official organ of the American Institute of Architects." At the same meeting, after much debate on this and other cognate questions, the following resolutions were adopted:

"Resolved, That the Journal of Architecture, to be published by Messrs. James R. Osgood & Co., under the name of the *American Architect and Building News*, be accepted by the American Institute of Architects as the organ of publication for the Proceedings of their Conventions, and for such other matters as they may think it expedient to make public, and that the Committee on Publications be directed to co-operate with the editor to that end.

"Resolved, That the Convention recommend to the architects of the coun-

try the propriety of furnishing articles to the Journal of Architecture, and also of subscribing for it, and giving it their support."

It may be said here that the practical outcome of the question as to the amount of connection between the journal and the Institute has been that the journal selects for publication the Institute papers that are likely to interest its public, or a considerable portion of them, while the more official and esoteric transactions of the organization are confined to the usual annual pamphlet.

The first number of the *American Architect and Building News* was issued on the first day of the centennial year (1876), and at the next and Tenth Convention, held in that year, the Committee on Publications said: "Your Committee have no knowledge of the financial status and prospects of that periodical, on which, of course, its permanence will depend, but they regard its literary success as established, while its illustrations, on the whole, are not below what might be expected."

Now that your Committee is authoritatively informed that its financial success is established, they can only forestall your congratulations on a fact so auspicious for the future of American architecture and its cognate arts, and so creditable to all concerned in the establishment—whether in its inception or its advanced stages, and whether on its literary, artistic, or financial side—of a worthy organ of those arts and their professors and promoters.

Respectfully submitted for the Committee by

A. J. BLOOR, Secretary.

November 15th, 1881.

SOME HINTS ON PATTERN DESIGNING.¹—II.



WITH your leave, I will go through some of the chief crafts in which surface patterns (and chiefly recurring ones) are used, and try to note some of the limitations which necessity and reason impose on them, and show how those limitations may be made helps, and not hindrances, to those crafts.

Let us take first the humble, but, as things go, useful art of paper-staining. And first, you must remember that it is a cheap art, somewhat easily done: elaborate patterns are easy in it; so be careful not to overdo either the elaboration in your paper or the amount of pattern-work in your rooms. I mean, by all means have the prettiest pattern you can get, but don't fall in love so much with the cheapness of its prettiness as to have several patterns in one room, nor even two, if you will be advised by me. Above all, eschew that bastard imitation of picture-embroidery, or tapestry-work, which, under the name of dado-papers, are so common at present; even when they are well designed, as they often are, they are a mistake. They do not in the least fill the place of patterns of beautiful execution or of beautiful materials, and they weary us of these better things by simulating them. The ease with which the brushwork of an artist can be, I will not say imitated, but caricatured, in paper-hangings, is a snare to this useful manufacture, and has been so from the first. In the printed wares you may have any amount of fine lines and shading by hatching, but you cannot have any color which has not a definite outline. By disregarding these facts, you lose whatever of special pleasure is to be obtained from linear shading, and by clear relief of light upon dark or dark upon light, and affront people's reason by trying to get the subtle gradations which the execution of hand-work alone can give.

Now, again, as to paper-hangings: one may accept as an axiom that, other things being equal, the more mechanical the process, the less direct should be the imitation of natural forms; on the other hand, in these wares which are stretched out flat on the wall, and have no special beauty of execution about them, we may find ourselves driven to do more than we otherwise should in making the construction of our patterns. This gives us a chance of showing that we are pattern-designers born by accepting this apparent dilemma cheerfully, and setting our wits to work to conquer it. Let me state the difficulty again. In this craft one evil is the absence of limitations as to number of colors, and the general ease of the manufacture is apt to tempt us into a mere twisting of natural forms into lines that may pass for ornamental; to yield to this temptation will almost certainly result in our designing a mere platitude. On the other hand is the temptation to design a pattern as we might do for a piece of woven goods, where the structure is boldly shown, and the members strongly marked; but such a pattern done in a cheap material will be apt to look over-ambitious, and, being stretched out flat on the wall, will lead the eye overmuch to its geometrical lines and all repose will be lost.

What we have to do to meet this difficulty is to create due paper-stainers' flowers and leaves, forms that are obviously fit for printing with a block; to mask the construction of our pattern enough to prevent people from counting the repeats of our pattern, while we

¹ By William Morris. A lecture delivered at the Working Men's College on December 10.

manage to lull their curiosity to trace it out; to be careful to cover our ground equably. If we are successful in these two last things, we shall attain a look of satisfying mystery, which is an essential in all patterned goods, and which in paper-hangings must be done by the designer, since, as aforesaid, they fall into no folds, and have no special beauty of material to attract the eye.

Furthermore, we must, if we possibly can, avoid making accidental lines, which are very apt to turn up when a pattern is repeated over a wall. As to such lines, vertical lines are the worst; diagonal ones are pretty bad, and horizontal ones do not so much matter.

As to the coloring of paper-hangings, it is much on the same footing as the forms of the design. The material being commonplace and the manufacture mechanical, the color should above all things be modest; though there are plenty of pigments which might tempt us into making our color very bright or even very rich, we shall do well to be specially cautious in their use, and not to attempt brightness unless we are working in a very light key of color, and if our general tone is bound to be deep, to keep the color gray. You understand, of course, that no color should ever be muddy or dingy: to make goods of such sort shows inexperience, and to persist in making them, incapacity. Now, a last word about this craft. Have papers with pretty patterns if you like them, but if you don't, I beg of you, quite seriously, to have nothing to do with them, but whitewash your wall and be done with it. That, I distinctly inform you, is the way, and the only way, that you who do not care about the art can help us manufacturers.

So much for paper-staining. The craft of printing on cloth (generally cotton) we may take next as a kindred art. Yet we don't meet quite the same difficulties here, for it is generally used so that it falls into folds or turns round furniture; so we need not be so anxious about masking the structure of our patterns, or so afraid of accidental lines; and as to the color, our material is so much more interesting that we may indulge in any brightness we can get out of genuine dyes, which for the rest have always some beauty of their own.

As to the spirit of the designs for this craft, for some reason or other—I imagine because it is so decidedly an Eastern manufacture—it seems to call for specially fantastic forms. A pattern which would make a very good paper-hanging would often look dull and uninteresting as a chintz pattern. The naivest of flowers with which you may do anything that is not ugly; birds and animals, no less naive, all made up of spots and stripes and flecks of broken color—these seem the sort of thing we ask for. You cannot well go wrong so long as you avoid commonplace, and keep somewhat on the daylight side of nightmare. Only you must remember that, considering the price of the material it is done on, this craft is a specially troublesome one; so that in designing for it you must take special care that every fresh process you lay upon a poor filmy piece of cotton, worth 4d. or 5d. per yard, should really add beauty to it, and not be done for whim's sake. I really think you would be shocked if you knew how much trouble and anxiety can be thrown away on such trifles: what a stupendous weight of energy and the highest science have been brought to bear upon producing a pattern consisting of three black dots and a pink line, done in some special manner on a piece of cotton cloth. I don't quite know what excuse for this trifling a philosopher might find, but to a craftsman, like myself, it seems mere barbarous twaddle, and I beg of you who wish to avoid complicity with it never to buy a piece of patterned cotton if you don't think the pattern pretty: that's the only way you can help us craftsmen in the matter; that is what I call patronage of art.

Now as to the pattern-designing for figured-woven stuffs, which is one of the most important branches of the art. Here, as you will find yourself more limited by special material than in the branches above-named, so you will not be so much beset by the dangers of commonplace. You cannot choose but make your flowers weavers' flowers. On the other hand, as the craft is a nobler one than paper-staining or cotton-printing, it claims from us a higher and more dignified style of design. Your forms must be clearer and sharper, your drawing more exquisite, your pattern must have more of meaning and history in it—in a word, your design must be more concentrated than in what we have hitherto been considering; yet, again, if you have to risk more, you have some compensation in the fact that you will not be hampered by any necessity for masking the construction of your pattern, both because your stuff is pretty sure to be used falling into folds, and will be wrought in some material that is beautiful in itself, more or less, so that there will be a play of light and shade on it, which will give subordinate incident, and minimise the risk of hardness. Moreover, these last facts about woven stuffs call on you to design in a bolder fashion and on a larger scale than for stiffer and duller-surfaced goods; so we will say that the special qualities needful for a good design for woven stuff are breadth and boldness, ingenuity and closeness of invention, clear definite detail joined to intricacy of parts, and, finally, a distinct appeal to the imagination by skilful suggestion of delightful pieces of nature.

In saying this about woven stuffs I have been thinking of goods woven by the shuttle in the common loom, which produce recurring patterns; there are, however, two forms of the weaver's craft which are outside these, and on which I will say a few words: first, the art of tapestry-weaving, in which the subjects are so elaborate that, of necessity, it has thrown aside all mechanical aid, and is wrought by the most primitive process of weaving, its loom being a tool rather than a machine. Under these circumstances it would be somewhat

of a waste of labor to weave recurring patterns in it, though in less mechanical times it has been done. I have said that you could scarcely bring a whole bush into a room for your wall decoration, but since in this case the mechanical imitations are so few, and the color obtainable in its materials is so deep, rich, and varied, as to be unattainable by anything else than the hand of a good painter in a finished picture, you really may almost turn your wall into a rose-hedge or a deep forest, for its material and general capabilities almost compel us to fashioning plane above plane of rich, crisp, and varying foliage with bright blossoms, or strange birds showing through the intervals. However, such designs as this must be looked upon as a sort of halting-place on the way to historical art, and may be so infinitely varied that we have not time to dwell upon it.

The second of these offshoots of the weaver's craft is the craft of carpet-making; by which I mean the real art, and not the makeshift goods woven purely mechanically. Now this craft, despite its near kinship as to technical matters with tapestry, is very specially a pattern-designer's affair. As to designing for it, I must say that it is mighty difficult, because from the nature of it we are bound to make our carpet not only a passable piece of color, but even an exquisite one, and, at the same time, we must get enough of form and meaning into it to justify our making it at all in these Western parts of the world; since as to the mere color we are not likely to beat, and may be well pleased if we equal, an ordinary genuine Eastern specimen.

Once more, the necessary limitations of the art will make us, not mar us, if we have courage and skill to face and overcome them. As for a carpet-design, it seems quite clear that it should be quite flat, that it should give no more at least than the merest hint of one plane behind another; and this, I take it, not so much for the obvious reason that we don't feel comfortable in walking over what simulates high relief, but rather because in a carpet we specially desire *quality* in material and color: that is, every little bit of surface must have its own individual beauty of material and color. Nothing must thrust this necessity out of view in a carpet. Now, if in our coarse, worsted mosaic we make awkward attempts at shading and softening tint into tint, we shall dirty our color and so degrade our material; our mosaic will look coarse, as it ought never to look; we shall expose our lack of invention, and shall be parties to the making of an expensive piece of goods for no good reason.

Now, the way to get the design flat, and at the same time to make it both refined and effective in color in a carpet design, is to follow the second kind of relief I told you of, and to surround all or most of your figure by a line of another tint, and to remember while you are doing it that it is done for this end, and not to make your design look neat and trim. If this is well done, your pieces of color will look gem-like and beautiful in themselves, your flowers will be due carpet flowers, and the effect of the whole will be soft and pleasing. But I admit that you will probably have to go to the school of the Eastern designers to attain excellence in the art, as this in its perfection is a speciality of theirs. Now, after all, I am bound to say that when these difficulties are conquered, I, as a Western man and a picture-lover, must still insist on plenty of meaning in your patterns; I must have unmistakable suggestions of gardens and fields, and strange trees, boughs, and tendrils, or I can't do with your pattern, but must take the first piece of nonsense-work a Kurdish shepherd has woven from tradition and memory; all the more, as even in that there will be some hint of past history.

Since carpets are always bordered cloths, this will be a good place for saying a little on the subject of borders, which will apply somewhat to other kinds of wares. You may take it that there are two kinds of border—one that is merely a finish to a cloth, to keep it from looking frayed out, as it were, and which doesn't attract much notice. Such a border will not vary much from the color of the cloth it bounds, and will have in its construction much of the elements of the construction of the filling-pattern; though it must be strongly marked enough to fix that filling in its place, so to say.

The other kind of border is meant to draw the eye to it more or less, and is sometimes of more importance than the filling: so that it will be markedly different in color, and as to pattern will rather help out that of the filling by opposing its lines than by running with them. Of these borders, the first, I think, is the fitter when you are using a broad border; the second does best for a narrow one.

All borders should be made up of several members, even where they are narrow, or they will look bald and poor, and ruin the whole cloth. This is very important to remember.

The turning the corner of a border is a difficult business, and will try your designing skill rudely; but I advise you to face it, and not to stop your border at the corner by a rosette or what-not. As a rule, you should make it run on, whereby you will at least earn the praise of trying to do your best.

As to the relative proportion of filling and border: if your filling be important in subject, and your cloth large, especially if it be long, your border is best to be narrow, but bright and sparkling, harder and sharper than the filling, but smaller in its members; if, on the contrary, the filling be broken in color and small in subject, then have a wide border, important in subject, clear and well-defined in drawing, but by no means hard in relief.

Remember on this head, once more, that the bigger your cloth is the narrower in comparison should be your border; a wide border has a most curious tendency towards making the whole cloth look small.

So much very briefly about carpet-designing and weaving in general; and, once more, those of you who don't yet know what a pretty pattern is, and who don't care about a pattern, don't be dragged into having a pattern because it is a pattern, either on your carpets or your curtains, or even your waistcoats. That's the way that you, at present, can help the art of pattern-designing.

A TRIP ABROAD.—THE CONTINENT.—III.



INO Canterbury, that old town of Kent, the first English Christian City, wherein are contained so many memorials of Roman Times, and the later reminiscences of "the pilgrims" and St. Thomas à Becket, we went on August 2d, in the afternoon, having been just one week in London. We travelled down by one of the fast trains of the London, Chatham and Dover road, in the path trodden in former days by weary religious enthusiasts. We arrived in good time and at once set out on the long, tortuous walk to the cathedral. Here, as in so many of the towns of the old world, the crooked streets lead almost anywhere but to one's destination. Before gaining the Cathedral close many curious relics of antiquity are seen, among them an arch having over it a tremendous clock.

The Cathedral is beautifully situated, surrounded by verdure, its dark, massive walls rising from a sea of green. On entering the door in the south side one cannot fail to be impressed with the immense size of the whole while the novel arrangement of the choir adds to it, being elevated a considerable height above the nave, and reached by a number of easy and broad steps, thus leaving underneath a crypt well out of ground. The massive rood-screen which breaks the total length adds to the extreme beauty. The place of the martyrdom is in the north transept. The chapter-house, where the present archbishops are installed, is well worth a visit, its vaulting being excellent. The Cathedral has been added to and altered so frequently that it is difficult to trace the junction of styles, for from the nave, built about 1080, to the central tower, added about 1495, there are specimens of almost every style. The crypt still retaining a little of its Norman origin is of peculiar interest. The corroding casque and gauntlets of Edward, the Black Prince, and other antiquities claim only passing attention.

Returning and wending our way past a set of houses, neat, well-built and cozy-looking, wherein dwell the old among the poor, we at last climbed a tolerably steep hill and reached the venerable St. Martin's Church, a plain, solid structure, almost entirely covered with ivy, in which were held some of the first services of Christian England. From here a very fine view of the Cathedral and of the rest of the little city is obtained.

We spent the night at Dover and the succeeding day, August 3, crossed to Belgium. The approach to Ostend is quite picturesque: the gravelly beach, the long row of houses white and glaring in the sun, and the numerous bathing-machines indicating the sea-side resort. There is little to detain the architectural traveller here, so we at once took our seats in the train and were whirled along past thousands of canals and miles of level country with no sign of fences anywhere, reaching Brussels about five o'clock. After a hasty lunch we wandered out in search of the Hôtel de Ville. The vacant square in front of it allows a first-rate view, and its many-storied roof, graceful spire, and wealth of curious detail, all so different from anything we have yet seen, pleased us greatly. Close behind is the famous little "manikin" fountain. The new part of Brussels about the region of the park compares favorably with any other city. Its streets are broad and the buildings though plain and with little to claim the attention are substantial-looking and elegant. In the old part the streets are generally very narrow and with so many badly-paved hills that moving about in winter must be a very difficult operation. On descending from the new part of the town to the Station du Nord, — which has a very good façade, — one comes unexpectedly upon the church of St. Gudule, its front raised high above the street by many steps. It is a very good example of middle-age work, and contains some excellent glass, besides a very curious — I cannot say very beautiful — pulpit by Verbruggen.

While in this region we did not fail to go to Antwerp. It is only a short ride from Brussels by rail, and the Cathedral well repays a visit. Leaving the station you walk by the Place de Meir to it. Before entering, which is done by means of a small door in the south transept, walk around to the front, and stand as far off as the width of the plaza admits until you become fully impressed with the wonderful tracery of its front and its majestic spire. Turn about and very near will be found an excellent specimen of Quentin Matsy's work, in the shape of a canopy over a well. The interior of the Cathedral is as beautiful as the work without, and contains the famous pictures of Rubens, The Elevation of, and Descent from the Cross. The stalls in the choir are worthy of close inspection; carved in wood, the faces, postures, and folds of garment of every figure are

exquisite. The same general characteristics of street architecture prevail here as in Brussels; the square-stepped Dutch gables are, however, more frequently seen.

By taking an early express from Brussels, and after travelling part way over one of the German roads which, collectively, for goodness of management, freedom from accidents, and well-laid tracks, far exceed any others, we arrived in Cologne about mid-day of August 5th. Long before reaching the town the Cathedral spires, landmarks for many a long mile of country, gladdened our eyes. There are few, I imagine, who have not heard somewhat of the great Dôm, its finishing in the nineteenth century claiming the attention of the whole civilized world; moreover, engravings and prints of the whole and almost every conceivable part of it are scattered broadcast. As much as I knew of it, however, I was unprepared for the effect of its parts; the undercutting, the shadows, the beauty of even the modern work. Yet taking it as a whole the proportions are far from good. The vaulting is much too high, some 160 feet, and the spires, although more than 500 feet high, are dwarfed by the enormous height of the nave roof. It is a great elephant, wonderful in its construction and finish, but extremely unwieldy and awkward. It is the one thing in Cologne, and notwithstanding its defects the inhabitants have just cause to be proud of it. The Apostles' Church, of Romanesque design, is worth a visit, but the other churches, even the one (St. Ursula) where the bones of the eleven thousand martyred virgins are reputed to be built into the wall, need scarcely be dwelt on. The Hôtel de Ville has a fine portico, but is so surrounded by buildings that it is hard to get a view of it. At Cologne one gets a first glimpse of the bridges of boats which are seen so frequently in journeying on the Rhine.



August 6th appears in our note-books as "a glorious day spent on the Rhine." The weather was perfect and the river looked its best. My eye was caught and kept constantly on the strain by the many castles, some dismantled, some rebuilt, which crown the promontories along the banks on each side. One does not get near enough to see what they really are, but archaeology, after all, is not architecture. The Apollinaris Kirche is prettily situated, and the castle of Ehrenbreitstein, with its many battlemented walls in different terraces, and its forts, graces the height on which it stands in a most picturesque manner. We reached Bingen about sunset, and owing to the breaking of a paddle-wheel were detained there until dark, much to my great gratification. Out in the middle of the river, close to this town, one sees a curious flour-mill in the form of a boat. I could not discover the motive power, but it appeared to be much used, from the number of small boats plying to and from it.

We arrived at the old city of Mayence, or Mainz, late at night, but early the next morning (Sunday, August 7th) I wandered to the Cathedral and attended low mass. The building is a very interesting one, and worth much more careful inspection than I was able to afford it. At eight o'clock the same morning we were once more on

the road, and after stopping two hours at Darmstadt, arrived at Heidelberg in time for table d'hôte dinner at 1.30 p. m. We then tugged up the steep hill to the Schloss, and spent a few hours among the ruins. This castle, half palace, half fortress, is sufficiently intact to afford a very good idea of what such buildings in Germany were in their prime, and when a view is had of the immense and renowned tun in the cellar, one also can imagine what wine-bibbers and good livers the old nobles were. Parts of the castle are very good, especially the banquet hall. By climbing a number of rickety wooden steps you reach the highest remaining point of the tower, the floor all moss-grown, and obtain an excellent view. Part of the tower has fallen, and lies a mass of stone and mortar in the moat. Descending and passing along a multitude of circuitous paths and by high thick walls you reach the remainder of the building, and finally enter its vaults and prison-cells. Many legends, as is the case with most of the ruins in this region, are told about the days when the place was in its splendor. Leaving the lovely grounds and mounting still higher you soon reach by a shady, winding walk the Molkencar, where a good restaurant gives you a chance to take your beer and enjoy the view over the silvery Neckar and the undulating country at the same time. Another ascent of some six hundred feet brings one to the Königsstuhl, nearly two thousand feet high, where sits an old tower, ascended by a dark flight of steps. From this elevation the sight ranges in every direction, and such a view is well worth the climb.

On August 8th we reached Baden-Baden at noon, and at once walked to the Trink-halle; in this place a large room with a wide, open portico in front, we obtained a glass of hot water gratis, then we went to the Conversation-haus, formerly the Cur-saal. The rooms connected with this establishment, the reading-room, ball-room, etc., are fitted up with a sort of barbaric splendor; gorgeous decorations in fresco and color adorn the walls and ceilings, while no less glaring sofas and chairs constitute the furnishings. The effect of the whole well lighted, combined with gay costumes must be very fine.

The art of the landscape gardener combined with the original beauty that nature gave have made both Baden-Baden and Heidelberg truly lovely, while the buildings, very plain, without pretense or ought to strike the fancy, are yet generally well built and not misplaced amid their surroundings.

We arrived in Strasbourg late in the evening of the same day, but had time to obtain an excellent view of the Cathedral front before dark, for which the open area, as at Antwerp, gives a very good opportunity. The one spire of this Cathedral, as the two at Cologne, is seen many miles off and is kept in view as one winds by the circuitous railroad route into the city. It was too near night when we reached the inside to see much except vast, semi-dark space, but the lingering rays of departing day-light still glistened a little through the windows and showed off some of the good coloring. All about Strasbourg are seen the effects of the recent war: bullet-holes in many walls and in some of the glass of the Cathedral are still visible. The façade of the north transept is an elegant specimen of mediæval work, and the figures about the portals are beautifully carved. Besides this majestic building, the city contains little of interest, although the many old houses repay a passing glance. The fortifications erected at an expenditure of so much labor and money are in many places washed down by rains.

We left this historic place on the morning of August 9th, and after passing through scenery of the finest kind, with the mountains of the Black Forest on one side and on the other the blue ones of Alsatia, and after a peep from the carriage window at the exquisite lace-work spire of Freiburg, we arrived at Bâle about 1.30 p. m. Here we found it so dusty that we were glad to take a tram-car, which, by the way run without tracks, and go immediately from one station to another without stopping to see anything. I believe there is little, however, to claim an architect's attention.

And now we enter Switzerland. Directly on emerging from the station at Bâle, the beauty of Swiss scenery at once burst on the eye. All the way to Lucerne, spite of several tunnels, the longest one being through the Jura range, is one continuous scene of beauty. The cars follow the American fashion, in so far as the middle walking space is concerned, but the English and Continental in regard to compartments; the combination being of the most atrocious character.

We arrived at Lucerne in time to hear the famous organ play the equally famous "Storm on the Lake": some of the stops are wonderful in peculiarity and power, but the organ is a poor one. The Hofkirche in which it is contained, has two good slender spires, but the interior is bare and whitewashed, and what of good there is in it is spoiled by the tawdry decoration of the sanctuary. There is much to see at Lucerne: the old bridges with their curious pictures and rough, well-seasoned timbers; the water-tower; Thorwaldsen's impressive sculpture of the lion, and many other things; added to these, the glorious panorama of mountains and lake, the Rigi and Pilatus, make it a much tourist-haunted place. Prettily carved little stone drinking-fountains adorn many of the street corners.

On August 11th we travelled, by diligence, over the Brünig pass to Interlaken. Nothing worthy of architectural note is to be seen on this trip, the hotel at Lungern being very plain, although well arranged with a spacious dining-room. The views, however, on this journey cannot be surpassed in all Switzerland, and the ease with which it is accomplished make it one of the most popular routes.

If there is anywhere truthfulness of construction and pretty use of carved wood-work it is found in the native buildings of Switzerland, the houses of the peasantry. The large overhanging roofs, all thatched and with tremendous boulders holding them down are supported at the gables and eaves by projecting wall-plates and brackets formed by straight pieces, one under the other, and cunningly carved; quaint texts are sometimes cut in the architraves and the balconies serve the double use of places for sitting on and covers to the fire-wood neatly piled up below. The little shingles with which these houses are mostly covered on the sides are not over 3" x 6" or 9" and thin in proportion.

Interlaken, which we reached late in the afternoon, is another tourist-beset place—a town of hotels. Some of them, such as the Jungfrau and the Victoria, are well arranged, with large rooms and beautifully laid-out grounds.

On the morning of the 12th we started off for the ascent of the Wengern Alp. After walking some ten miles in the midst of the finest and most insinuating dust, passing on our way the Staubbach Fall, we arrived at Lauterbrunnen, and from there commenced the steep ascent.

We reached Grindelwald about 7 p. m. after a somewhat tiresome descent, having accomplished upwards of 32 miles, including a stiff climb of about 6,600 feet. Here we spent the night, but starting again early on the morning of the 13th we went back to Interlaken, and taking the train, which in this case had a pleasant, open second story, arrived at Geneva late in the evening, after spending an hour or so at Berne. The arcades in this city are not as interesting as those at Chester, they look new and too well kept.



At Geneva we spent two days, making an excursion over the lovely lake to Chillon, which is beautifully situated on the shore and contains the castle, as well as a very charming little railway station. The Cathedral at Geneva is not a bad example of Romanesque, but is spoilt by a wooden Corinthian portico.

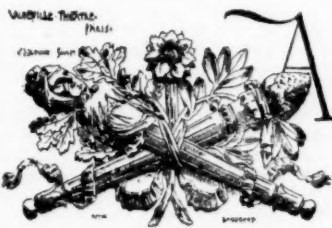
On the Continent, as in England, we generally patronized the smaller hotels, such as the Victoria at Heidelberg; the Wage at Lucerne; the Bellevue at Interlaken, and the Suisse at Geneva.

In Germany we had frequently, as room-companions, immense and curious stoves of white porcelain hooped with brass.

The floors even in the sleeping rooms of the smaller hotels are laid of hard wood in geometric patterns.

T. BUCKLER GHEQUIER.

TRIALS OF HARRISON'S COMBINATION COLUMNS.



NUMBER of gentlemen interested in practical construction assembled at Mr. Kirkaldy's testing works, London, a short time ago to witness the trials of Harrison's combination columns, the object of the invention being to enable masts, columns and girders the better to withstand lateral strains than if made of iron only,

and to keep their position when broken. To this end a wood core or packing is inserted in each column or girder. This core does not merely fill the interior of the column, but projects downward into a recess in the pier, and upward, if desirable, into the superstructure, so as not merely to hold the column together, if cracked by a strong transverse strain, but to prevent it breaking from the pier or the superstructure from a failure of the bolts under a strong horizontal strain. This core can be made smaller than the interior of the column and placed loosely in it, and the surplus space filled with bitumen, or, if the interior of the column be bored, the wood can be turned to accurately fit it, and be driven in. The samples tried at Mr. Kirkaldy's consisted of nine foot lengths of cast-iron hollow columns of varying thickness and diameters (from six to twelve inches), packed with elm, the interstices being filled with pitch. These were tried in pairs of similar diameters, unfilled and filled. Only a portion of the intended experiments were carried out, the remaining samples, consisting of wrought-iron masts and girders, being reserved for a later trial.

THE NEW ARCHITECTURAL ASSOCIATION.

MINNEAPOLIS, MINN., January 19, 1882.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—As noticed in your issue of the 14th, the members of the Minnesota Architectural Association met at the office of Mr. E. P. Bassford, of St. Paul, on the afternoon and evening of the 17th inst., to complete organization.

The time was mainly devoted to consideration of the report of the Committee on Constitution and By-Laws.

Four Fellows, two from St. Paul, and two from Minneapolis, were elected to complete the Board of Management. The officers elected at the first meeting, held at Minneapolis on the 3d inst., being *ex-officio* members of the Board.

The membership is divided into Fellows, Juniors, Associates and Honorary Members. There are now eighteen Fellows.

The objects of the Association, as defined by the Constitution, are "To unite in Fellowship the Architects of the State, and to combine their efforts so as to promote the artistic, scientific and practical efficiency of the profession and to cultivate and encourage the study of kindred arts," and the Fellows present seemed to heartily endorse the spirit of the manifesto.

The officers for the present year are:

President, James K. Wilson, Minneapolis. Vice-President, E. P. Bassford, St. Paul. Recording Secretary, D. W. Millard, St. Paul. Secretary, F. G. Corser, Minneapolis. Treasurer, W. C. Whitney, Minneapolis.

Meetings are to be held monthly, alternating in St. Paul and Minneapolis. Respectfully, FREDERIC G. CORSER.

251 Nicollet Ave., Minneapolis.

NOTES AND CLIPPINGS.

LARKIN G. MEAD.—Larkin G. Mead, the Vermont sculptor, has been elected to a professorship in the Florentine Academy of Fine Arts.

THE VICTOR EMMANUEL MONUMENT.—Models for the Victor Emmanuel Monument, more than three hundred in number, are now to be seen in a large new edifice of Rome near the Via Porta Pia. Some are of wood, others of plaster; others are outlined in water-colors on paper; others are charcoal sketches. Descriptions of the models show that a large proportion are fantastic and impossible to complete.

M. MASPERO AND THE PYRAMIDS.—M. Maspéro, the Director of the Egyptian Museums, has determined to open all the pyramids that have not already been explored, and to search still further in those which are not yet thoroughly understood. On the borders of the Lybian desert stands the pyramid of Mejdoum, known to the Arabs as the False Pyramid. This he has already entered, after much difficulty, and in full knowledge of the defiance it had offered to other and earlier explorers. Heretofore Mejdoum has been looked upon as the most mysterious of all the pyramids in Egypt.

A DANISH LEGEND.—In the old cathedral at Ribe, Denmark, there is fastened to one of the massive granite pillars near the main entrance an ugly brass candlestick upon which is inscribed a curse on the man who removes it. No one knows when or by whom it was put there, probably more than two centuries ago. When some years ago the church was repaired it was decided to remove the unsightly object. A ladder that was put up for the purpose fell upon one of the workmen and broke his leg. The first man who went up to unfasten the candlestick fell down and broke his neck. On the same day the architect who had the restoration of the church in charge fell seriously ill. The candlestick was then left in its place and remains there to-day, an object of awe.—*Exchange*.

A FOSSIL STONE WALL.—The Lexington (Ky.) *Press* says the workmen engaged in quarrying rock for Mr. Shannon, one mile from town, on the old Frankfort pike, came upon a massive stone wall. It had every appearance of having been built by human hands, the mortar seams, and joints being very plain. Above it about ten feet of drift and twenty feet of rock had been removed by the workmen, and on the side exposed the men had advanced fully forty feet from where they first struck rock. Thus it was firmly embedded in a solid limestone quarry, which certainly has formed about it since the wall was built. The face of the wall was well dressed, and its massive appearance gave evidence of the skill of hands perished long centuries ago, and could well be envied by the best of the stone masons of to-day.

THE IMPENDING RUIN OF CHIOS.—Chios would, if a telegram from Athens prove correct, seem hardly a profitable place for the investment of money in freehold land. Not only have earthquakes of late given the inhabitants more than ordinary trouble, but the ground is gradually sinking, hot springs are everywhere appearing, and the inhabitants look forward to finding the whole island submerged in the sea at no very distant date. This does not seem to be by any means a pleasant prospect for the natives who, while they deplore the instability of the land which they have been used to regard as home, are scarcely prepared to share its fortunes should it sink much lower than at present. But as in the darkest storm there is often a streak of light, so in the troubles of Chios there is one section, at least, of humanity that will find room for consolation. It is in Chios that the finest and headiest raki is made; the raki which beguiles even the followers of Mohammed, and makes the gravest Christians of Athens at times a little unsteady in their gait. With Chios at the bottom of the sea this seductive fluid will enchant the Eastern epicure no more; and, in default of the tasteful liquor, he will probably drink nothing but water. The disappearance of Chios might accordingly be regarded as a great temperance movement in the Orient.—*London Telegraph*.

FIRE-PROOF PAPER, INK, AND PAINT.—It appears that the effort to manufacture a fire-proof paper and ink for either writing or printing purposes, which has so long baffled human ingenuity, has recently met with success in Germany. According to an industrial newspaper of that country, paper possessing fire-proof qualities was made with chemically treated asbestos fibre and ground or finely divided wood fibre. Ninety-five parts of asbestos was used with five parts of the wood fibre, and by aid of glue-water and borax were made into a pulp, which yielded a fine, smooth paper which could be used for writing purposes. It had the unusual quality of sustaining the influence of a white heat without injury. Fire-proof printing and writing inks were made by combining platinum chloride, oil of lavender, and lamp-black and varnish. These ingredients produced a printing ink, and when a writing fluid was wanted, Chinese or India ink and gum arabic were added to the mixture. Ten parts of the dry platinum chloride, 25 parts of the oil of lavender, and 30 of varnish are reported by a local writer to yield a good printing ink of this valuable kind when mixed with a small quantity of lamp-black and varnish. When the paper printed with this compound is ignited the platinum salt is reduced to a metallic state, and becomes a coating of a brownish-black color. A free flowing ink for writing on the fire-proof paper with an ordinary metallic pen may be obtained, says the same authority, by using 5 parts of the dry chloride of platinum, with 15 parts of oil of lavender, 15 parts of Chinese ink, and one part of gum arabic, adding thereto 64 parts of water. When the paper is ignited after being written upon with this ink, the platinum ingredient causes the writing to become transparent, and, as a consequence, it is claimed that such writing as has become black or illegible will become readily legible again during the process of heating the paper. Colors for painting may also be made fire-proof by mixing commercial metallic colors with the chloride of platinum and painters' varnish, adding an ordinary aquarelle pigment to strengthen the "covering power" of the color. These fire-proof paints or colors can be easily used in the same manner as the common water-colors, and it is claimed they will resist the destructive influence of great heat quite as successfully as the fire-proof printing and writing inks just referred to.—*New York Times*.

THE PANTHEON AND THE LACONICUM.—Rudolpho Lanciani, the clever and courteous chief of the Tiberine excavations at Rome, reports to the *Athenaeum* a discovery of great interest in connection with the Parthenon. On the 17th of July work was begun on the buildings which crowd about the rear of the Pantheon, and the "Laconicum," or hall for vapor baths, built by Agrippa at the same time with the Pantheon, was laid bare. It was a rectangular hall, 70' by 150', with 16 niches for colossal statues, and a tribune back to back with the chief of the altars in the circular Pantheon. The vault was supported by eight huge pillars, four of fluted pavenazetto, four of polished Oriental granite. "The pavement is inlaid with handsome Oriental marbles, and so were the walls, as shown by many pieces still attached to them. The entablature, of which many pieces weighing seven tons each have been found, is a wonder of art, the frieze especially, with tridents, dolphins, shells, and acanthus leaves harmoniously mixed together. We have no accounts of the age and the circumstances of the final collapse of this noble building; one thing is certain, that when the roof gave way and thundered down with a sudden crash some one was in the hall, and could not escape being buried alive. Under a piece of the cornice, weighing, as I said, seven tons, we have found the crushed bones of a poor fellow, who most likely had selected the remains of Agrippa's Laconicum for his home. Not far from his strange grave, in a remote corner, we have picked up an earthen pot containing silver coins of the thirteenth century.

A THEATRE FIRE IN ST. PETERSBURG.—In the year 1835 or 1836, I cannot recall the exact date, there was an accident in St. Petersburg nearly as calamitous as that of the Ring Theatre in Vienna. It occurred at "Lehmann's" temporary theatre. Lehmann's pantomime was the favorite resort of the vast crowds that make holiday during the carnival and Easter; and his "balagan," or booth, the largest of the flimsy wooden structures erected at that season on the Isaacs Plain, was always crowded. It must have contained at least 700 or 800 people, nearly all of whom perished in an incredibly short space of time. The fire burned so furiously that numbers must have been actually burnt alive. There was but one outlet or entrance, and this, locked from the inside during the performance, was so blocked up by the panic-stricken audience that it was impossible to open it. The few people who escaped owed their lives to two carpenters in the crowd who succeeded in tearing off some planks from the outside. These men were taken up by the police! It is almost needless to add that the Government used every effort to hush up the horrible truth, and to minimize the loss of life, which was reported at "about 500;" no one was allowed to approach the spot till every trace of the calamity had been obliterated, but I have a very keen remembrance of the awe-stricken crowds who watched from a distance the long and horrible process of removing the dead bodies. It is to the credit of the Emperor Nicholas that the two carpenters were liberated and rewarded by his direct interposition.—*Spectator*.

A FIRE-EXTINGUISHING POWDER.—Some experiments were lately made in a Russian town with a fire-extinguishing powder, which upon contact with the flames produces heavy fumes in such overwhelming quantities as to completely stifle the fire. Boxes were thrown into a burning naphtha and petroleum store, and the doors and windows were securely closed. In two hours the building was opened and found to be filled with dense fumes from the powder, but entirely free from fire. The powder is expensive, but, as wisely remarked, not so expensive as conflagration.—*Iron Age*.

THE DOME OF THE PALAIS DE JUSTICE AT BRUSSELS.—It was originally intended to make the dome of the new Palais de Justice in Brussels of copper, but it has been decided to use papier-maché instead. When completed it will not weigh more than sixteen tons.