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THE twelfth convention of the Institute, of which we have given a fuller account elsewhere, was duly held in New York on Wednesday and Thursday of last week, in the Corn and Iron Exchange, whose juxtaposition with one of the stations of the Sixth Avenue elevated railroad gave the members from abroad a fair experience of both the virtues and the vices of the new mode of transit. It was not a full convention, the attendance from other cities being small; nor a long one, being limited to two days and three sessions. The reports of the officers made only a fair showing for the past year: the membership having remained pretty nearly stationary; the expenditures leaving a small balance on the right side, owing to the omission of the usual publication of the Proceedings; and the active work accomplished during the year having been less than usual. The Board of Trustees reported that efforts on their part to influence Congress in favor of government tests of building materials had proved ineffectual, and they had laid the matter on the table. The presidents of the chapters had been appointed a committee on the credentials of new members. The resolution of the Committee of Ways and Means revising the method of collecting the revenue, passed by the last convention, had been rejected by the chapters. The New York Chapter reported from their committee on the legal status of architects a decision of the courts which involved the denial of the protection of the lien law to architects, the case decided being actually that of an engineer, but showing by implication that no such protection was given to professional men, since the law was intended to aid laborers only. The Boston Chapter presented a resolve ratifying the resolution proposed by the Committee of Ways and Means, and asking that the committee be made permanent. They also reported the expedition undertaken with the encouragement of the chapter by Mr. Joseph T. Clarke, one of their junior members, for a complete comparative study of all the accessible remains of Greek Doric architecture in Europe and Asia Minor. The Baltimore and Rhode Island Chapters reported indifferent success in their efforts to secure the passage of proper building laws, that of Baltimore being defeated, and that of Providence having been passed after a long struggle (of which we have here and there given an account), but shorn of many important restrictions, and with no satisfactory provision for its enforcement.

THE Rhode Island Chapter presented the draught of a law imposing a fine of a thousand dollars and a term of imprisonment upon any architect, engineer, or superintendent whose building should fall down or fail to perform its use during five years after it was built, provided that he had full control of its construction; and a like penalty upon any contractor or builder who should provide any building material whose failure should cause loss of life, unless he could prove that he carried out his instructions exactly. This was followed by an able paper on the legal liabilities of architects here and abroad, by Mr. T. M. Clark, and led to an animated debate, some members arguing in favor of the most rigid accountability, and decrying building laws; while others demanded a qualification which should exclude incompetent architects from practice; and others called for

a careful discrimination between the responsibility of the architect and that of the builder. The subject was dropped without action or expression of opinion from the convention. The president, Mr. Walter, read, besides his annual address, a very interesting memorial of his predecessor, the late Mr. Richard Upjohn, which it was voted should be entered upon the minutes of the Institute, a copy being sent to Mr. Upjohn's family. A paper by Mr. Littel on the use of brick in decoration provoked considerable discussion on the relative value of brick and terracotta as building materials; and others were read, on the metric system, on the faults of American architecture, and on plumbing. A report was received from the Committee of Ways and Means, suggesting the value of a technical examination as a qualification either for membership or for professional practice, and proposing means to secure the interest of the younger members of the profession by prizes or other appeals, and to increase the importance of the conventions. The other things which occupied the convention were chiefly matters of domestic business or discipline. The old officers and committees were reelected with a few exceptions, of which the chief was the election of Mr. Charles D. Gambrill as secretary, in place of Mr. McKim, who declined to serve another year.

ANOTHER subject which led to considerable discussion was the conduct of architects in competitions. The following resolutions were passed:—

"That any member of this body who, in case of competition, should propose or agree to undertake the work for which he is competing for a less commission or compensation than his fellows in the competition violates the sole condition of membership in this society, viz., 'the honorable practice of his profession;' and that upon proof of the fact to an investigating committee, which shall consist of three Fellows, who shall be appointed by the Board of Trustees upon the demand of two Fellows of the Institute, he shall be declared to be expelled by the Board of Trustees, without further action of the Institute as a body, and that such expulsion shall expel him also from the chapter."

"That if in case of paid competition any member of this Institute shall offer his services free of charge, he shall be liable to censure, if charges are made by two Fellows and a committee appointed as provided in a former resolution, for censure for violation of the conditions of membership in the Institute."

THE papers give short abstracts of the report which the Supervising Architect has just made to the Secretary of the Treasury. The notices that we have seen are very meagre, but we make out from them that the usual obstacle of insufficient appropriations has made it impossible to carry on much of the work to advantage, so that several of the buildings — the custom houses at Hartford and Fall River are quoted — must as usual be stopped, almost as soon as work on them is fairly resumed, for want of funds. The office is being gradually relieved of the last of the fifteen per cent contracts, those for cutting the granite of the Hartford Custom House and the Boston Post Office extension having been modified during the year, so that the work will henceforth be paid for according to measurement. The Boston building is reported as advancing satisfactorily. It is expected that before the season closes the stone-work of the first story on all the fronts will be set; and a contract has been made for the iron columns of the basement and the beams of the first floor. The amount of the balance in hand, three hundred and forty thousand dollars, allows one to hope that it may be possible to keep the work going till the next appropriation is available.

THERE is so much persistent talking about the removal of Mr. Hill that there must be a strong effort making to displace him. We cannot pretend to any familiarity with the matter, but the movement seems to have grown out of the Chicago Custom House quarrel and to be a purely local one, while the unofficially appointed successor is a Chicago man. It is safe to say, without assuming to be well acquainted with a question of which we do not know the ins and outs, that we have not seen indications of any but local dissatisfaction with Mr. Hill's administration of his office, nor have we heard of any well-sustained accusations of unfitness, by reason either of incompetency or of unfaithfulness. Indictments have just been brought against him and others for fraudulent dealing about the Chicago Custom House, but they look as if they were aimed somewhat at random, since they include no less than eight persons, among whom is Mr. Hill's predecessor, now for the first time attacked. Moreover, it does not tend to give confidence in the fairness or disinterestedness of

those who are working for the removal of a prominent official, that they should have a candidate in hand ready to push into his place as soon as it is vacant. The professional officers of the government are those who more than all others should hold their positions without dependence on politics or cliques. The Supervising Architect, especially, is an official who should be as permanent as possible, in order that the traditions of his office and the continuity of his work should be as little interrupted as possible. There is perhaps no work undertaken by the government which is so likely to be marred in passing from hand to hand as its architecture, because it is never finished, and one man cannot without peculiar difficulties take up the artistic work which another lets fall. Mr. Hill had the exceptional advantage of coming to his position thoroughly familiar with the traditions of it, and even with the details of the work actually in hand, having had a long training in the office itself. To supplant such a man by a novice is prudent only when he has shown himself incompetent or dishonest; that any private person or coterie should assume to urge a successor of their own selection into his place could at most be justified only by conspicuous and commanding ability of the candidate.

THE French Exhibition has been closed a fortnight after the time first appointed. There has been more or less complaint against the management of it, particularly in respect to the awards,—a thing which, for that matter, is always to be expected. People have found fault because the awards were so long in coming, and because when they came they were cheapened by being lavishly and indiscriminately distributed. In spite of the warning of Vienna and the good example of Philadelphia, the inn-keepers and coachmen of Paris, and the shop-keepers according to their opportunities, combined to make the way of the visitor hard. The want of suitable restaurants at the Exhibition itself was another thing that gave serious annoyance. But with all these drawbacks the Exhibition has undoubtedly been, as it was meant to be, the most attractive that has yet been held, on account of the splendor of the display and the magnificence of its buildings, as well as the brilliancy of the city which gave it. It has probably proved somewhat more costly and less directly remunerative than was anticipated; but the French expected to pay liberally for it, and were not in the humor to criticise the cost too sharply. The expenses were estimated in advance at something over thirty-five millions of francs; what they have amounted to is not yet told. It was assumed that the receipts from visitors would be fourteen millions of francs; they are reported at somewhat less than thirteen millions. The receipts at Philadelphia were greater by half; but the admission fee at Philadelphia was a half a dollar, while at Paris it was a franc. The proceeds of the concessions (for restaurants, catalogues, and the like) were counted at a million and a quarter, and with an allowance of four millions for the sale of the buildings, it was concluded that the immediate deficit would be about twelve millions; which, however, was to be more than made up, it was thought, by the increased revenue from postage, telegraphic despatches, various imposts, and the reduction in subsidies to railroads. The receipts from the sale of the buildings will probably not help the deficit much, for that on the Trocadéro was built to be permanent, and now it is decided that the great building shall remain also. The Champ de Mars, where it stands, has always been considered the inalienable parade ground of the Ministry of War, which has vigorously pressed its claim to recover possession, it is said. The Ministry of Commerce, however, has fought hard to defend its building, and has secured a compromise, in virtue of which, we are told, the building is to be preserved. Already we hear of a movement to prepare another American exhibition, this time in New York. We might hope that the next American exhibition would be under government authority, if we could be sure of honest management. To undertake it under private or local authority is quite at variance with the idea of an international exhibition, and must be a disadvantage to it, however honest and public-spirited the management may be. This was the rock on which the Philadelphia Exhibition almost split.

THE Royal Academy has this time chosen for its president a painter whose reputation does honor to the selection. The new president is Mr. Francis Leighton, who would probably be accounted, by more people than any other, the first English painter of our day. Americans who studied the paintings at the Centennial will be likely to remember him by two strongly contrasted yet in some way analogous pictures shown there, the

"Egyptian Slinger" and the "Summer Moon." He is one of the few English painters who have tried in this day to keep to the walks of what is called "high art," eschewing pretty much all subjects from the actual life of his day and generation, and confining himself to the works of a poetical and somewhat severe imagination. A certain early tendency toward purism was in keeping with his choice of Steiner, of Vienna, the follower of Overbeck, for his master, and Ary Scheffer for the companion of his later studies. His father, it is said, gave him up rather reluctantly in his youth to the study of painting, influenced by the advice of Powers, the sculptor, to whom he had referred his case. This decided his training, which was long and thorough, was mostly German. He studied first in Berlin and then in Frankfort, spending afterwards some years in Rome. The first picture which brought him reputation was, characteristically, a picture of Cimabue carrying his painting of the Madonna in procession through the streets of Florence. The subjects of his other works show the imaginative bent of his mind. Among them we find "Dante in Exile," "The Triumph of Music," "The Fisherman and the Siren," "Paolo and Francesca," "The Star of Bethlehem," "Ahab and Jezebel," "Helen of Troy," "The Syracusan Bride at the Temple of Diana," etc. He was commissioned a short time ago with Mr. Poynter to solve the ever-recurring problem of painting the interior of St. Paul's. He was made an Academician in 1869, and is now forty-eight years old. He is said to be as distinguished for his social qualities as for his artistic achievement,—a distinction which is held to be a *sine qua non* for the post for which he has been chosen.

THE TWELFTH CONVENTION OF THE INSTITUTE.

THE twelfth annual convention of the American Institute of Architects, held in New York last week, though it called out some animated debates, does not seem to leave behind a great deal to record. This is perhaps partly because the attendance was smaller than usual, and among the absentees were a number of members who have usually lent efficient help to the proceedings; partly because the various officers and committees of the Institute had provided less material than usual to be acted upon; and also because cutting down the exercises to two days, instead of three, which is the time-honored length, left scant room for the handling of the subjects that were and might have been presented. There were in fact but three sessions, instead of five or six, as has been the usual custom, so that several of the more interesting matters were dismissed, either without a satisfactory discussion or without decisive action; while others which might have been discussed with profit were passed with a mere mention, and one paper on an important subject, which was presented late in the proceedings, was necessarily put on record without even being read, for want of time. A well-considered and well-arranged programme and the starting of several questions of professional importance made the sessions interesting, nevertheless.

Of literary matter in the shape of essays and special reports there was as large a proportion as usual, we should say, and probably as interesting; while the manner in which it was introduced, distributed, as it was, pretty uniformly among all the sessions, was perhaps as effective in securing attention and promoting discussion as any, though it does not tell so much in the retrospect as if it had been massed together in distinct sessions. Besides the president's annual address, which we print elsewhere, his sympathetic memorial address on the late president, Mr. Upjohn, and Mr. Clark's excellent essay on the legal responsibilities of architects were the two papers which showed careful and deliberate preparation, though there were short papers of interest from several of the members present and absent on the subjects proposed in the programme.

The reports of the officers and committees showed little change in the conditions of finances and membership. There had been but few elections and two or three withdrawals during the year, leaving the number of Fellows at sixty-five, and Associates seventy-two. The result of cutting down the annual assessments in the last two years was shown in the fact that, notwithstanding the failure to publish the Proceedings of the Eleventh Convention during the year, the revenues had barely sufficed to cover the expenditures, the balance in hand at the end of the year being less than that at the beginning, and it being thought necessary, therefore, to levy a special assessment to provide for the publication of the proceedings of that convention and the present one. The scheme of finance provisionally adopted a

year ago by the convention was reported as rejected by the chapters. This leaves the Institute—after the general assembly has cut down the assessments, without regard to the requirements of its usual expenses and what is considered its necessary outlay, and has rejected the means provided by which it could exercise control of these expenditures—to a choice between two or three rather unsatisfactory alternatives. These are, to go on with a revenue which obliges it to forego something of its proper efficiency; or to provide for annual deficits by a special assessment, as has been done this year; or to again increase its regular fees.

The most important question of practical bearing discussed was that of the responsibility of architects for the failure of buildings put up under their direction. This was introduced by a draught of a general law proposed by the Rhode Island Chapter, which provided that the architect or superintendent of a building should be held responsible under severe penalties for loss or injury due to the failure of his work, unless it proved that it was not carried out according to his intention, in which case the responsibility should pass to the builder. Mr. Clark's paper on the Liability of Architects also turned discussion in the same direction, citing the practice of the French courts, which holds the architect and builder to a joint liability,—apportioned according to the evidence of fault in each case,—as distinguished from the English and American habit, which allows the client or injured person to attack whichever he chooses, a privilege that is apt to lead to the discomfort of the architect and the escape of the builder. The discussion showed considerable variety of opinion, there being, however, a pretty general agreement as to the importance of holding architects to a strict accountability for the quality of their own work, with symptoms even of a generous readiness to accept liability for the faults of other persons as well as their own. One speaker argued against the restraints of specific building laws, which, being made to suit a particular class of cases, as he had found by his practice in New York, were an actual hindrance to satisfactory construction in others; so that a building might, he thought, be built in exact accordance with the law, which would infallibly fall down. He therefore favored the enforcement of individual responsibility rather than of restrictive laws. It was time, another urged, that the law stepped in to teach persons who dared to add "architect" to their name the weight of the responsibility they assumed; and he thought the penalties to which architects were liable could not be too great, so that incapable pretenders might if possible be prevented from assuming their duties. A third held that the public was ready to take care of itself, and that there was no reason why architects should interpose to provide protection for it by urging legislation. If it were desired to eliminate incapable men from the profession, it was better to begin at the other end by establishing some standard of qualification, and not allowing unqualified persons to practise as architects.

The general course of the debate showed that while the liability of architects was sufficiently well recognized by them and by the public, and unhesitatingly enforced on occasion, the profession itself had no very definite idea of the limits of liability or the best way of enforcing it. The discussion, in fact, drifted away from what was the chief point brought forward in the Providence resolution, and suggested by Mr. Clark's paper, the point which we think most needs the attention of architects,—the discrimination between their liability and that of the builders who work under them. At present the American practice seems to hold both of these persons liable, and as against the public the owner also, and to visit the wrong, where an injury occurs, upon whoever happens to be nearest or most visible or most solvent. Among these three the builder, being usually the least conspicuous, is most apt to get off free. When the architect is to be held as first hostage, as some of the speakers at the convention seemed to wish him to be, the kind of superintendence which this position requires from him ought, it seems to us, to be clearly distinguished from that which is tacitly understood, given, and accepted in the conduct of ordinary work, and the fee for it ought to be considerably greater than is allowed in the regular schedule of charges. As for the building laws, it must be remembered that though skilful constructors would be more comfortable without them, and may even be impeded by them in their development of actual improvements, it is not they who are aimed at by them; and it is more for the general good, since, as one speaker remarked, the laws cannot be made elastic, that a capable architect should now and then be hampered

by them than that cheap Jack, who has no fear of responsibility, and who does five times as much building, should be allowed to do it at his will. After a pretty animated debate, the convention let the subject fall without action.

The most important resolutions adopted by the convention were those which we have quoted in another column, touching the conduct of members in competitions. If there are in the Institute such offenders as these resolutions would touch, it would be well to make an example of them. How great readiness there would be among their fellows to pursue them to conviction remains to be seen; but to do it would undoubtedly strengthen the Institute as well as do something to abate a scandal. Another question of practice, which was referred to the Board of Trustees, was suggested by the letter of a member of the Boston Chapter, who complained of the provision in the published schedule of charges, that the whole fee or commission on "stores" shall be three per cent. This certainly is a hardship to the architect, unless "stores" is defined to mean plain warehouses or something like them; for, as the writer urged, the greater part of buildings which are nowadays put up in our cities under that name require from the architect as much care and design, in proportion to their cost, as dwelling-houses, churches, or public buildings.

The paper which led to most discussion on more technical subjects was that by Mr. Littel on the Use and Abuse of Brick in Decoration, in which the writer discountenanced this use of brick, and favored the employment of stone for the ornamental parts of buildings, on account of its superior breadth and solidity. The debate turned chiefly on the advantages of terracotta and moulded brick as building materials, and of carving in brick-work. One member objected to moulded bricks on the ground that their lines were always coarse and unsatisfactory, and that being moulded on the ends they gave only members of four inches wide, and so tended to monotony of scale,—all of which may be true as concerns the inferiority of brick to stone for the finer uses of building, and yet leave a wide range of work in which it can be employed to good purpose. In favor of carved brick the point was made that it had an advantage over terracotta inasmuch as it could be carved in its place; a process which its advocate said he always employed in stone carving, that he might see the effect of his work as it went on. To this the advocates of terracotta replied that the clay could be carved or modelled in its place and burnt afterwards, and added, fairly enough, that it was a more reasonable proceeding to carve the clay before burning, when it was soft and tractable, than afterwards, when it had become hard and intractable. The arguments were furnished by a small number of those who were present, and there was nothing to show what the prevailing opinions were: but we fancy there will not be much dissent among architects from the general doctrine that natural stones are the first of materials for sculpture; that terracotta is an economical substitute, which deserves respect for its serviceableness and durability, and lends itself well to artistic effect; and that brick, even when made of special quality for the purpose of carving, must be regarded as a rather ungrateful *pis-aller*.

The conventions are the mainspring of the Institute, so far as it acts distinctly from the chapters, and every one who is interested in the welfare of the Institute should do his best to strengthen them. The most efficient means to this end is careful and early preparation. If the programmes for them could be laid out some months beforehand, instead of two or three weeks, and members could be induced to inform themselves upon and consider the topics which were to come up in them, a good deal of hasty writing, uncertain action, and rather unconsidered discussion might be exchanged for what would be of more permanent value and influence. As it is, the conventions are apt to wear an air of impromptu disputation, which takes something from the weight of their conclusions, and makes it difficult to direct their force effectively. Not that the impromptu element should be banished: it is valuable as giving life and flexibility to the deliberations of any assembly. But it would be well if it could be more solidly weighted with the influences of serious preparation. This would certainly give more effect as well as greater steadiness to the action of the conventions. It would allow a chance to correct the false perspective of hasty debating, and to turn their chief energies to their most important concerns. We know how difficult it is for busy men to give their attention to any occasional work before it is absolutely required; nevertheless we commend this view to those who are to have the next convention in charge.

THE TWELFTH ANNUAL CONVENTION OF THE AMERICAN INSTITUTE OF ARCHITECTS.

PRESIDENT WALTER'S ADDRESS.

FELLOWS AND ASSOCIATES OF THE AMERICAN INSTITUTE OF ARCHITECTS. — These convocations mark the progress of our art, and tend to its development and advancement; their recurrence is, therefore, to be regarded as occasion for congratulation and fraternal greeting, in the interchange of which I take pleasure in meeting you to-day. We have assembled to hold our Twelfth Annual Convention, which, to us as professional architects, is an occurrence that we should highly prize, and endeavor to make the most of. The business that will come before us relates to the best interests of the profession, and it is expected that each one of us will have something to impart that will add to our general stock of knowledge; it therefore becomes us, in this connection, to "be ready for every good word and work."

We have been guarded and guided by Divine Providence since we last met in convention, and this we acknowledge with gratitude; at the same time we are called to bow with submission to a very great affliction, — our late beloved President, the venerable Richard Upjohn, has gone to his reward. He departed this life on the 17th of last August, at his picturesque home at Garrison's-on-the-Hudson. I shall not now allude further to this irreparable loss, but at the request of the Board of Trustees of the Institute, I shall read a separate memorial paper on the subject to-morrow, during the morning session. We shall therefore turn for the present from the dead to the living.

The progress of architecture during the past year has been quite in sympathy with the times. A period of financial depression, such as our country has passed through since our last annual convention, is by no means calculated to promote the development of architectural science. Some works of importance have been commenced, but not many; and others that were begun in better times have continued in progress of execution, with satisfactory results.

Much has been done during the year in our large cities, in the construction of residences and buildings for business purposes, the most of which bear the impress of independent thought in architectural composition, and it is not to be doubted that the development of the genius of design is becoming every year more apparent.

While it is true that we, as architects, recognize with satisfaction the progress of our art, it should be borne in mind that we do not expect everybody to admire what everybody else does; our tastes, fortunately, differ in regard to the aesthetic handling of most of the works that come under our notice; but that difference is the life of our art. If, in the processes of architectural design, we all thought alike, our works would be devoid of individual inspiration, and a wearisome monotony would pervade all manner of buildings. It is therefore well for our art that differences of opinion in matters of taste exist among its professors, provided the individuality that characterizes our respective works is the outgrowth of genius and cultivation.

We have, unfortunately, some specimens of building in our principal cities, which, so far from exhibiting progress in the artistic manipulation of material forms, remind us of the primitive efforts of a barbarous age, carrying us back to Ellora, Elephanta, or Uxmal; it is, however, a satisfaction to know that such eccentricities are comparatively few.

As the masses of the people become more imbued with intelligent conceptions of art, whatever fails to develop the good, the true, and the beautiful will cease to be tolerated. After all, it is to the education of the public mind in what constitutes the genius of architecture, that we are to look for the suppression of crude and inartistic building, and the promotion of a taste that will do honor to the age in which we live.

But little has been done by the Institute during the past year in promoting advancement in the professional practice of our art. The general stagnation of all kinds of business has had the effect of causing a falling off of the members in their attendance at the meetings of the respective chapters, and a general loss of interest in scientific research.

If we fail to bring our minds and energies to bear upon whatever relates to the advancement of our profession, and to keep the machinery of our organization in active operation, we shall undoubtedly lose ground with the public and come short of the elevating and ennobling influences to which our art is addressed.

We shall not, however, despond. Business men say that stagnation in trade has "touched bottom," and that better times are before us; let us then partake of the influences of the revival in business, in commercial circles, and apply ourselves, now and onward, to the promotion of all that relates to a healthy architectural progress.

In the works of the recent past a decided improvement in the structural character of buildings is noticeable. More attention than heretofore is being paid to the permanency of foundations and to the scientific elements of construction, thus affording conclusive evidence of the value of the improved architectural training which students now enjoy, and of the increased attention of architects in general to the sciences which underlie the art of building. The pursuit of knowledge in this direction, both in and out of the profession, is, no doubt, mainly to be attributed to the Institute and its chapters.

It is, however, to be regretted that we are not yet without occa-

sional examples of imperfect building, some of which have resulted in serious disaster; but it should be remarked that in most, if not in every instance, the faults have been traced to unskilful superintendents and unreliable contractors, rather than to the architects from whose plans they were constructed, and who in most instances had no control over their execution.

Architects are frequently called upon to furnish designs for buildings, with detail drawings and specifications, with the understanding implied or expressed, that in order to save a portion of the full commission of five per cent on the cost of the work, their services in the direction and execution of the design will be dispensed with; such economy is "penny wise and pound foolish," as it seldom fails to result in defects in carrying out the plans, as well as in a greater expenditure than would have been incurred had their author's design been properly executed; and what is still more, the false economy referred to has, in some cases, resulted in serious disaster.

It must, nevertheless, be borne in mind that an architect is always considered by the public as responsible for his designs, whether he is employed to see them executed or not. Should they be committed to unskilful hands and be mutilated *ad libitum*, and so imperfectly executed as to result in a want of stability, he need not expect that public opinion will exonerate him from a certain degree of blame, however perfect his design of construction may have been. Not only is the permanency of a structure affected disadvantageously by intrusting its execution to irresponsible mechanics, without professional guidance, but its architectural proportions and appointments are sure to be hardly dealt with.

It would be well for the profession and well for the public if architects would decline to furnish designs, unless it were understood that they are to supervise and direct their execution.

It may not, however, be politic for an architect to insist in all cases on such an understanding; but it is obvious that the fewer drawings he commits to the manipulation of unskilled hands the safer will be his reputation as an architect and the more satisfactory will be his practice.

As the objects which suggest themselves for the consideration of the Institute cover everything that relates to architecture, it is eminently proper that some attention should be given to the subject of the laws which govern the erection of buildings, wherever such laws exist.

The Institute is obligated, by its relations to the building public, to inquire as to the power vested in building inspectors, particularly in our large cities; to ascertain their qualifications for the proper discharge of the duties pertaining to the office, and to inquire into the efficiency of the laws by which they are constituted and governed, and, in case the public safety requires it, to recommend to the constituted authorities, especially of our large cities, such changes in existing laws and the processes of their execution as will insure greater safety to the public, and a higher degree of architectural propriety in the appearance of buildings throughout the country.

Permit me to say in conclusion, that although our professional engagements during the past year may not have been on as extensive and magnificent a scale as we could have desired, we have all, no doubt, added more or less to the architecture of the age in which we live; and it becomes a question for us to consider, whether in our works we have in any degree enhanced the dignity of our profession and the well-being of society; whether we are progressing in a purer, higher style of art; and whether the developments of our genius, as we have embodied them in material forms, have an educating effect for good on the public mind. If such is the result of our doings, we have consciousness of progress to nerve us for the future, and the satisfaction of knowing that the world is the better for our having lived.

THE ILLUSTRATIONS.

HOUSE FOR E. S. BARRETT, ESQ., CONCORD, MASS. MESSRS. PEABODY AND STEARNS, ARCHITECTS, BOSTON.

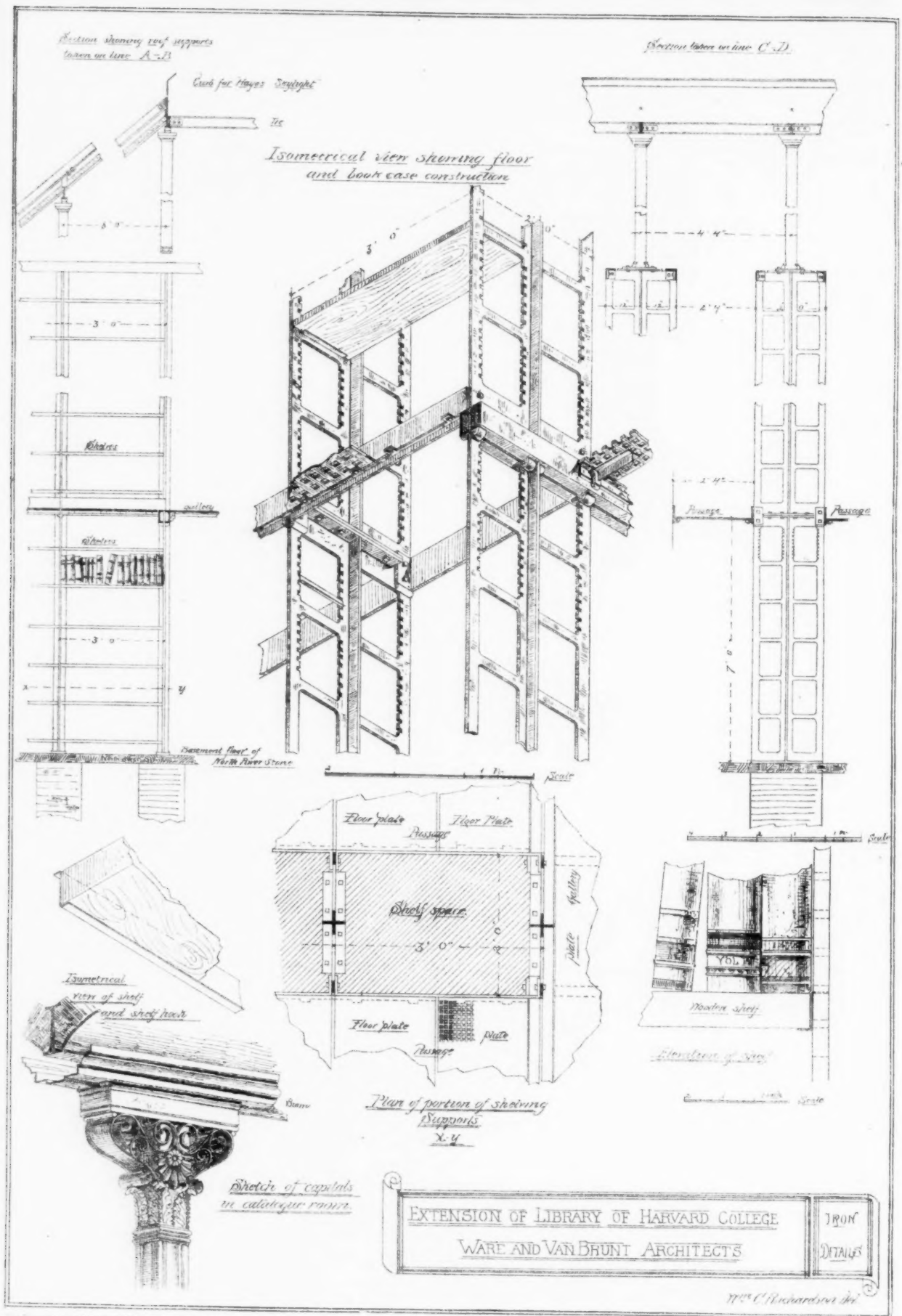
THESE are three preliminary sketches successively made for this country-house. It is now being built in the main like the large sketch, and somewhat like the small one that shows the opposite sides.

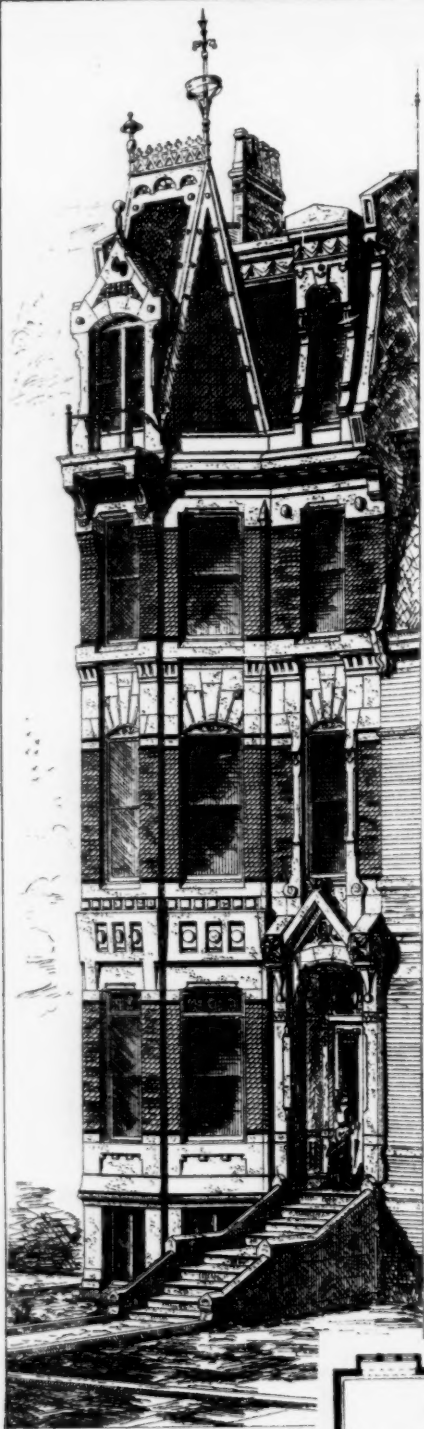
MUNICIPAL OFFICES, ST. JOHN, N. B. MESSRS. MCKEAN AND FAIRWEATHER, ARCHITECTS, ST. JOHN.

HOUSE ON COMMONWEALTH AVENUE, BOSTON, MASS. MESSRS. KIRBY AND LEWIS, ARCHITECTS, BOSTON.

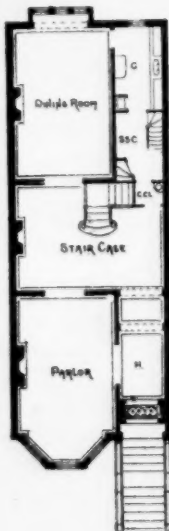
DETAILS OF THE NEW EAST WING OF THE LIBRARY OF HARVARD UNIVERSITY, CAMBRIDGE, MASS. MESSRS. WARE AND VAN BRUNT, ARCHITECTS, BOSTON.

This design is intended to meet the complicated service of a great library, according to the new conditions of the cataloguing, distribution, storage, and delivery of books. The book-room is divided into seven stories, each seven feet high, by floorings of open iron gratings, resting upon a series of transverse bookcases, also of iron, two feet and eight inches apart, arranged to facilitate the more economical and compact storage of books, and their scientific distribution upon the shelves, so as to be most readily accessible to the officials of the library. The structure is wholly fire-proof, and is divided from the old library by fire-walls. It is intended to arrange the old library for a reading-room for the students of the university. The new book-room will accommodate from two hundred and fifty thou-





HOUSE . . . ON .
COMMONWEALTH AVE.
BOSTON.
KIRBY & LEWIS -- ARCHTS.
10 Pemberton Sq.



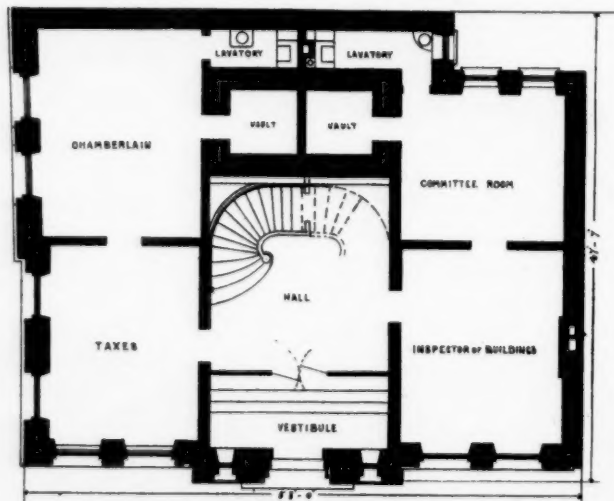
MUNICIPAL OFFICES
— SAINT JOHN N.B. —



— FRONT ELEVATION —

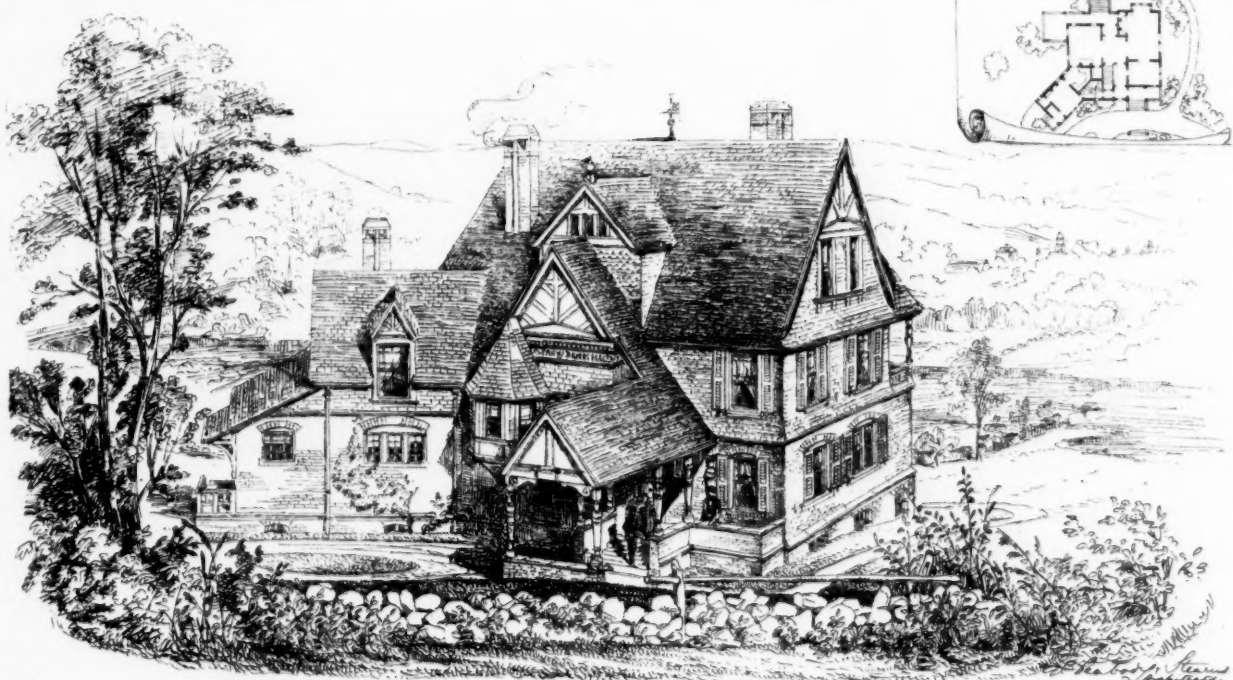
— SCALE 1/4" = 1' —

RENDERED BY J. H. WATKINS, 1880
— SAINT JOHN N.B. —

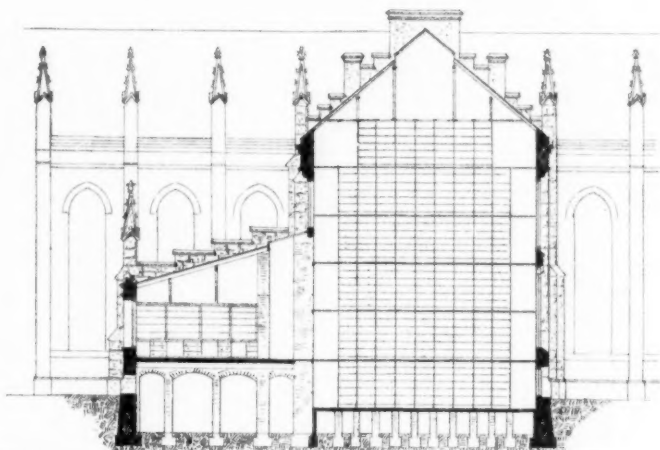


— FIRST FLOOR PLAN —

BY KEAN & FAIRWEATHER, ARCHTS.
SAINT JOHN N.B.

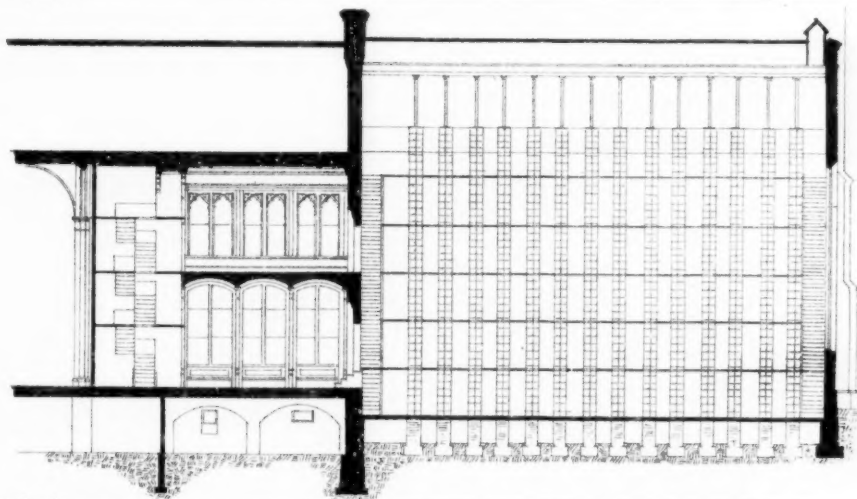


PRELIMINARY SKETCHES, FOR A COUNTRY HOUSE
PEABODY & STEARNS ARCHT'S.



ERECTED

SECTION A-B

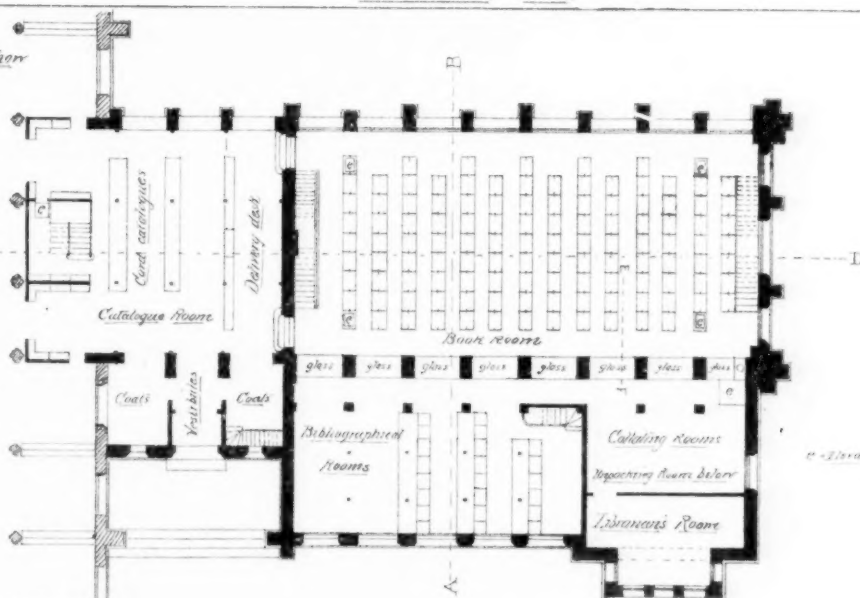


AD 1876

SECTION C-D

Hatched lines show
old work

Old Library run over as Reading
Room



- PLAN -

Wm. C. Richardson Del.

EXTENSION OF LIBRARY OF HARVARD COLLEGE - WARE & VANBRUNT - ARCHTS -

sand to three hundred thousand volumes. Accommodation is provided in the south aisle or lean-to for the bibliographical department, at present carried on with from fifteen to twenty assistants.

ART STUDIES.

PROFESSOR COLVIN recently told the students of the Brighton School of Art that:—

They must remember that to learn to draw, paint, and model up to a certain point was very far indeed from learning to be an artist. The profession of an artist, as he understood it, was to follow one of the greater and higher branches of the fine arts, to produce pictures or statues that should be things really worthy for cultivated beings to look at, and capable of giving them the higher kind of pleasure which it was in the nature of sculpture and painting to give. He said, and with all seriousness, without meaning disrespect to any one, that of those who practised these arts as a profession at the present time in England, or in any other country of Europe, the larger part had much better not have practised them at all. He did not say that they had better not have learned to draw. Far from that. But he meant that a picture was not worth painting, and a statue was not worth modelling, and that neither was worth looking at, unless they attained a certain degree of excellence. The curse of modern art exhibitions, and of the quality of modern art generally, was this: that it was fairly dexterous, and showed a certain amount of skill, but was not good enough to have any sufficient reason for existing. He was very glad to hear that some agreed with what sounded rather a hard saying. He did not wish to quarrel with the present century, which was one of most interesting that ever existed, and had deserts of its own. But he did want to face and realize those conditions which necessarily altered altogether the character of our art in comparison with that of the ages which we were justly accustomed to think of as the great ages of art.

In the Greek age or the mediæval age there was no subject which man could think of which he did not view in a fashion that suggested images of art and images full of awe and worship, conceptions of the kind which most raised and inspired the faculties of the artist to high contemplations, and to the production of whatever likeness of Divinity he could imagine. The ancient Greek with his religion, which invested all the forces of the world with human forms, could positively not carry on any of the ordinary occupations of his life, could not think of anything or do anything at all, which did not suggest to him a statue. This was one instance of the manner in which the Greek's way of looking at the world turned all the accidents of his life to forms of art. If a rich Greek had been sick, and had come—as the rich Englishman comes to Brighton—to a place in Thessaly famous for its fine air, and had got well, he would acknowledge his recovery by ordering a bas-relief, in which would be figured the god Æsculapius and his daughter Hygiea, the goddess of health. If he had been out at sea and had had a narrow escape from a storm, he would similarly dedicate a work of art to Neptune, the god of the sea. All that we recognize as realism, or *genre* painting, and most of our portraiture, hardly existed at all in the great day of Greece. Jumping the interval to the mediæval ages, there was to be found a similar sort of conditions. The painter of the Middle Ages was not set to choose from the life of every day his own subject, to illustrate something out of a novel, or to catch at something which had pleased him in the street; he was not set to invent a new subject every time he wrought; but he was set to paint at one or another of that cycle of subjects on which all the higher and more solemn thoughts of men were fixed,—the cycle of the Christian religion, with its Divine and the attendant figures. The concentrated efforts of many generations of painters were spent in giving to these prescribed and uniform subjects all the sublimity, all the majesty, all the tenderness, which long, devout, and ardent thinking could give them. It was not until the modern school of painting dawned in the seventeenth century with the Dutchmen, that the range of art was, so to speak, thrown open. The artistic mind of Europe thenceforth ceased to move along these narrow lines of definite and prescribed religious conceptions, and spread itself along a thousand tracks,—the tracks of daily existence, of landscape, of *genre*, of anecdote, and the rest.

All that art of ordinary life and ordinary nature, which was to be seen in the exhibitions of the present day, and which formed the staple of art as we knew it, had been invented latterly,—within the last two hundred years. A whole enormous cycle of things, which people used to think of as incarnated in divine persons, or personified in human images, had passed out into the pale and bloodless region of abstract ideas. And with this change there was naturally a corresponding change in art. Art, descending and spreading itself to right and left, became comparatively trivial; as the artist's thoughts were no longer concentrated on some one dominant cycle of ideas, which aroused all his emotions and naturally suggested forms of beauty, so his work lost its high poetic character. If the artist were of a prosaic temperament, he saw what was prosaic in the world, and painted it. We now found fault with an artist if he painted an old subject. We looked always for novelty of invention. And so it came about that the besetting sin of modern art was a prevailing triviality of conception, and at the same time a prevailing commonness of execution. It was no part of his intention to quarrel with the changed conditions of the time. They must accept the fact of art having come down and spread itself over an innumerable new

range of subjects. Only let them insist that the work should be really excellent of its kind, that the artist should be a man, born by the power and intensity of his nature, to add something permanently precious to the aspects of every-day life, and carry his skill of hand to a seriously excellent and exceptional pitch. He believed that, when all of us were taught from childhood to draw, and when our eyes were somewhat trained to learn what was really excellent, and to refuse what was only tolerable, we should cease to accept a large portion of the current art of to-day. A greater number of artists of really high power might be thrown up from among the population, but the standard of what would be thought worth having would be very greatly raised. This sounded as an antagonistic and a discouraging result to expect from the spread of the kind of teaching which his hearers were receiving and succeeding in at their school, but he did not think that it was really to be considered as discouraging. He did not at all know how many among the prize winners of the evening might have set their thoughts upon the career of an artist. No doubt some had. Then let them well consider whether they felt within them the true calling and the power for that high career. Many others, no doubt,—some they knew from the nature of the prizes and certificates won,—might not have that intention, but had the intention, at any rate, of following the career of teachers of art, in the sense of teachers of those manual exercises of drawing, painting, and modelling which were the foundation of art. That was a most honorable career, and one certain to come more and more into demand if education in these exercises became almost universal.—*The Architect.*

HINTS ON BUILDING CHIMNEYS.¹

1. A BROAD, deep, and substantial foundation is necessary,—one that will not settle or be disturbed by frost. If the chimney is built in or rests upon the wall of the basement or cellar, the wall at that point should be sufficiently broad.

2. The chimney should be perpendicular, straight and smooth, without angles, corners, jogs, or contraction, and at no point in contact with wood; with a space of an inch or more where it passes joists, rafters, or timbers, or through floors, ceilings, or roofs, and at least four inches between the back of the chimney and the end or side of the building. Joists should not be masoned in or rest upon or against the chimney wall, but a header well removed from the chimney used for their support. An additional reason why chimneys should be built very strong and entirely free from contact with any wood in the frame buildings of our western country is that they are so often what is known as "balloon frames," so lightly put up that they are always liable to be shaken by our heavy winds so as to cause cracks in chimneys otherwise constructed.

3. The walls of the chimney, when built of brick, should be six, eight, or more inches thick. A chimney with six-inch walls, the inside course set on the edge and bound with brick laid transversely every four or five courses, is nearly as safe as an eight-inch. Where an eight-inch wall is laid it is perhaps better to leave a space of about an inch between the two courses of brick, occasionally binding by laying a brick transversely. A wall of this kind will not heat so as to endanger wood even in pretty close proximity. The chimney should be put up at a time when free access can be had by the masons to every part of its outside, before joists and other timbers have been placed in the way and before the roof has been put on. Four-inch walls are unsafe at the best, and particularly so if there is any truth in the theory that brick exposed to hot air or steam will in time show a larger amount of heat than is at any time in the heated air or steam passing by or in contact with it; that is, if brick will accumulate heat as we know some metals and minerals do. We know of some facts that seem to support this theory. If it is true, many queer fires from furnaces and chimneys will perhaps be more satisfactorily accounted for.

4. There should be openings at the bottom of the chimney and of each separate flue for the removal of soot. These openings should be closed with a heavy iron box or scoop-shaped stopper. If left open the draft will be affected, and besides, there will be danger of fire falling upon the floor. These soot boxes, or scoops, unless made of heavy iron, are liable to rust out, owing to the damp soot and pyrolygneous acid.

5. The chimney should be smoothly plastered with a mortar composed of one part fresh cow dung and three parts ordinary mortar. The mixture should be made from time to time, as needed, and applied before it has time to set and become hard. A chimney so plastered will soon present a hard surface nearly as smooth as glass. Soot will not accumulate on the sides of the flue, and the draft will be quite perfect, other things being observed. The draft will be still further improved if the area of the flue is increased one inch every ten feet from the bottom to the top.

6. The flue for an ordinary dwelling fire-place or stove-pipe should have an area of at least 128 square inches for a wood or soft coal fire, and not less than 96 square inches for a grate or stove burning hard coal. Where large wood or soft coal fires are required, the area should be 192 square inches. Each fire-place or stove-pipe should have a separate flue, otherwise you cannot rely upon the draft. If for any cause more than one stove-pipe is to enter the same

¹ From a paper read at the Underwriters' Convention, at Chicago, by Mr. Daniel Morse, of the Home Insurance Company of New York.

flue, the size of the flue should be increased one fourth for each additional pipe.

7. The hearth should rest upon a brick or stone arch. Timber and board foundations are always concealed incendiaries; iron, because of its power to conduct heat, is also unsafe.

8. The throat of the fire-place should be well contracted and pitched forward, so as to be directly over the fire. This will insure a draft, owing to the fact that the part of the atmosphere not passing through the fire, but entering the flue, will come in more direct contact with the heat, and thereby be more highly rarefied. The construction of the chimney being right, the draft is produced by the air being rarefied in passing through and over the fire. This heated and lighter air ascends the flue, while the denser air in the room rushes forward to supply the partial vacuum. [A common but inexact way of putting the case. *EDS. AM. ARCHT.*] Sometimes the draft is imperfect, because a sufficient supply of air is not admitted to the room; and in other cases owing to an open pipe or soot-box hole. All openings should be closed with brick and mortar or closely fitted metal stoppers. The modern practice of pasting a piece of paper over an opening should not be permitted.

9. The walls of the chimney, particularly on the back side, where it is concealed from inspection, and at points where the chimney passes near wood, should be most carefully laid, pointed and plastered on the outside. Fires from defective flues where there is no crack usually reveal the fact, if the chimney is left standing, that the wall on the back side, at points passing near timbers through floors on the roof, has not been well pointed and plastered on the outside. Good work has been done only at points or places exposed to the eye, and where there was no danger from fire.

10. The practice, in many cases, of building a water-shed by projecting the brick just above the roof, should not obtain, nor should the chimney at this point be enlarged for any purpose. The projecting bricks in a majority of cases rest upon the rafters or roof boards; and if at any time the chimney below should settle, there will be a crack and by and by a fire. Chimneys thus enlarged above the roof, presenting a massive and substantial appearance, fail to suggest the truth as to the small and cheaply constructed flue below. A word in regard to chimney sweeps and stated periods for cleaning flues. In places where ordinances have been passed and enforced on this subject, and sweeps licensed, fires caused by the burning out of chimneys or from defective flues have been of rare occurrence. Perhaps if in our respective fields we were to aid in having ordinances touching this matter passed we would prove ourselves public benefactors and at the same time promote the interests of insurance companies.

CORRESPONDENCE.

THE HARTFORD ORPHAN ASYLUM.—THE STATE CAPITOL.

HARTFORD, CONN.

THE keen edge of distrust of Gothic architecture by the public hereabouts, except in its relation to ecclesiastical structures, has been somewhat dulled of late, not only by the building of the new State Capitol, but also by the completion of the Hartford Orphan Asylum, recently occupied, which offers a good example of Gothic work as applied to a secular building. It has been building for the past two years from designs and plans prepared by Mr. F. Kimball, of this city. The first impression produced is that of picturesqueness. This is attained by an artistic distribution of the masses and a close attention to constructive details, as well as by the treatment of the more important features of the composition. The entire plan as originally contemplated has not been carried out, sufficient accommodation for the present wants of the institution having been provided in those structures already finished.

The chief points of the design may be summarized briefly as follows: a main building thirty feet wide by one hundred and thirty-five in length and three stories high, its length broken and its sameness relieved by the projection of a central portion finished with twin gables above the main cornice line, a long wing on the right extending beyond the front and rear lines of the main building, an L running out from the rear of the main building to a distance of over fifty feet, and a square tower carried up at the intersection of the main building and the wing. This is finished above the lines of the surrounding roofs; the sky-line is further broken by a well-proportioned ventilation turret rising from the main roof above the central portion. The wing of the asylum displays no inconsiderable variety in the treatment, and is the first to attract the eye. The front is marked by an ornate gable, the lines of which are broken by a large chimney, and at the ground floor level a small bay window is thrown out. On the eastern façade of the wing is a square projection carried up the full height of the building, and the composition is further emphasized by a large, octagonal, wooden bay, having a bold projection from the main line of the wing and carried up through the several stories and finished with pointed roof, surmounted by a finial of metal-work. The asylum has a frontage towards the south; and upon the north advantage was taken of the natural slope of the ground to secure in the L a serviceable basement. The building depends for its color effects upon the contrasts of the several materials used in construction; the body of the work is of brick laid in red mortar, with a finish of brown stone and Ohio-stone, the latter being plentifully used about the principal entrances for door

jambes, etc., as well as for copings and finials elsewhere throughout the building; white brick are seen in pattern-work upon the tower and also in some half-timber work about the triple gables which form a conspicuous feature on the rear of the main building. The moulded brick, so popular with architects here, were first introduced to any great extent upon the asylum, and, together with brick for diaper work, enter largely into the design, serving important ends in beaded window-jambes, label moulds, cornice work, and string courses. With few exceptions the windows are pointed and evince study in their grouping and distribution, the large ones having mullions and transoms, while the tympana are filled with brick in various patterns. The dormer windows are of wood and vary in design; and English ridge tile of peculiar design crown the main roofs as well as those of the dormers throughout, the roofs being covered with dark slate banded at the ridge with red. The windows in the L have square heads, the jambes being of Ohio stone; the L is divided into five bays by buttresses, and the north gable is broken by a large chimney, a well executed piece of ornamental brickwork, a large shield panel giving additional effect to the work.

In the building, wide halls and corridors of generous widths give an air of hospitality, and the finish throughout, though plain, is substantial and effective. The main corridor on the ground floor, reached through the entrance hall in the main building, has rooms opening from it on one side only, the south, the opposite side being largely occupied by bays with slight projection, completely filled with windows which flood the corridor with light. Separate entrances for boys and girls lead from the front of the building to the main corridor; eventually, separate staircases will be provided. The large wing on the east of the main building is in part occupied by the residence of the superintendent, connected on each floor with the asylum, and contains also the two nurseries, one for day the other for night, the former apartment having a fine sun exposure afforded by the immense wooden bay alluded to. The staircase in the tower gives access to the first floor. Upon the first floor are found a school-room, dormitories, assistant-matron's room, convenient bath-room, clothes-rooms, etc. The second floor contains additional dormitories, linen and other rooms, and in a remote part of the wing a hospital; a lift in connection with the hospital runs from the basement to the second floor. The ground floor of the L contains the dining-hall, a characteristic feature of the interior of the asylum. This hall is 32 x 50 feet, with open truss roof; the trusses are of solid oak and are supported by massive corbels of Ohio-stone built into the walls, the lines of the trusses marking the bays, which are each pierced by triple windows filled with leaded sash. Large windows with stone mullions and transoms pierce the north wall, and between them, projecting boldly, is a massive, hooded chimney-piece of Ohio-stone. It will be enriched by carefully executed carving and will bear upon its face a brass tablet with the names of the founders of the dining-hall. The dining-room when completed will have a high wainscot of oak upon its several sides. The kitchen, laundry, scullery, etc., are beneath the dining-hall. Several large basement rooms serve the purposes of play rooms, and have cemented floors, convenient lavatories, and proper means of ingress and egress. The building is heated throughout by steam, the apparatus for which is beneath the kitchen. Care also has been bestowed upon the all-important subject of ventilation. Some attention has been paid to the laying out of the grounds about the building, and altogether the asylum stands out prominently among the newer buildings in Hartford.

Work upon the State Capitol has grown apace of late; the marble-work above the cone of the dome has been completed, as well as the lofty pedestal for the reception of the crowning figure in bronze. The figure will have been put in place by the time this letter appears in print. The staging upon the dome will remain in its present position until next season, when it will be required for placing the several statues about the dome. These are twelve in number, and when the State has so generously given of her wealth to build this costly structure, what can be said in favor of the piece of Yankeeism which authorizes the erection of six fine statues interspersed with six duplicates?

CHETWOOD.

THE FAILURE OF CONCRETE FLOORS AT CAMBRIDGE, ENGLAND.

THE failure of concrete floors in the New Comparative Anatomical Schools at Cambridge, which occurred in February last, forms the subject of a special report by the Museums and Lecture-Rooms Syndicate to the Senate of Cambridge University, in which all the circumstances and subsequent correspondence are set forth in detail. Although the building itself was a comparatively small one, the correspondence is instructive as showing the incapacity of concrete to resist tensile strains, although it behaves admirably under compression. It is explained that the school buildings were designed by Mr. W. M. Fawcett, and were erected under his superintendence in two contracts by Messrs. Bell. When nearly completed on February 18th last, a slab of concrete forming the northernmost compartment of the roof gave way and fell to the ground, carrying the floors with it and three men at work on it. The syndicate on the following day instructed Messrs. Arthur W. Blomfield, M. A., and Thomas M. Rickman to examine and test the soundness and stability of the concrete floors throughout the building. In their report they state that

the structure was three stories in height, and about forty feet from the ground to parapet, and having a basement under part of building. The external walls, which varied from two and one half bricks to two bricks in thickness, were of ample strength. The floors and roof throughout were constructed of concrete of an even thickness of six inches, and excepting the roof perfectly level. The passages, landings, and roof were finished with cement paving, making a total thickness of seven inches. The floors were carried on rolled iron joists of the following weights and sizes: 18 ft., bearing 9½ in. deep, 25 lb. per foot run; 20 ft., bearing 10 in. deep, 33 lb. per foot run; 24 ft., bearing 12 in. deep, 43 lb. per foot run. The concrete floor was carried down from the top of the girder to the bottom flange by a filling-in finished with a slope, and at the top of each girder was a joint between the several slabs of concrete. This concrete was filled in over boarding, which formed a level centre for it, and which was originally set with a camber of three fourths of an inch, which was brought down to a level line by the weight of concrete before it set. The concrete was made with six parts of clean-washed shingle passed through a one-inch gauge, and one part of clean washed sand, and one part of the best Portland cement, with sufficient water thoroughly to set in one hard mass, and was fully up to this standard.

The accident seemed to have been caused by jarring in lifting a coping-stone, and involved the fall of a whole compartment of concrete, 18 feet by 11 feet, and the destruction of each of the floors on which the masses fell. The report adds that the concrete in the floors was very hard, although it did not contain so much sand as might have been used. The roofing material was, however, decidedly inferior, and no floors could be expected to withstand the fall of four or five tons of material. A portion of one of the girders, 7½ feet long, was subsequently tested by Mr. Kirkaldy, of Southwark, and found to be more brittle than could be wished for. It bore a load of 19½ tons without deflection, but broke under 35 tons, and proved to be crystalline instead of fibrous in texture. Messrs. Blomfield and Rickman therefore considered that the joists were not of sufficient strength for the purpose, and that the floors were so designed that any use to which they might be put trench in many instances seriously on the working margin left in the calculations. Mr. Fawcett demurred to some of the conclusions in their last report, and to the proposed strengthening of the girders, and was permitted to test, with Mr. Mullett, two of the existing floors. They bore, the one a strain equivalent to 2 cwt. per superficial foot, with ⅛ inch temporary deflection, and the other nearly 3 cwt. with ⅝ inch deflection. Mr. Baldwin Latham, C. E., was consulted by Mr. Fawcett, and pronounced the cause of failure and settlement in the concrete floors to be due to inherent defects in the material when applied in a large building liable to settlement from compression of the foundation, or from settlement in the walls. Concrete, he remarks, is often liable to fall from a simple jar, owing to the drying of the outer faces before the interior has set from crystallization. As the material will resist a very great compressive strain, but cannot withstand a tensile strain, it ought not to be used in large slabs. The girders in this particular building were insufficient, and should be strengthened throughout the building. Plans were then prepared by Mr. Fawcett, in consultation with Mr. Latham, providing for the reconstruction of the faulty compartments of roofs and floors, and for the strengthening of the rest by additional girders and columns, and were approved by Messrs. Blomfield and Rickman. The syndicate, however, were not altogether satisfied with the new plans, and it was eventually decided, on the advice of Mr. Latham, to remove the whole of the concrete roof and replace it by one of wood, slated; to reconstruct certain bays of the floors, — these, as well as those which have fallen, to be of wood in place of concrete; and to strengthen the other floors with additional iron-work. These works were undertaken at once; but, owing to the sagging and cracking of some of the old floors during the work, Mr. Latham was again consulted, and it was determined to remove the whole of the concrete floors except that on the ground level, and replace them by wood. The question of the respective liabilities of Mr. Fawcett and the University for the cost of these works of reconstruction has been referred to the arbitration of Mr. Charles Barry, President of the R. I. B. A., who has taken evidence and inspected the building, but has not yet made his award. — *Building News*.

ELEVATED RAILWAYS.

PHILADELPHIA, PA.

TO THE EDITOR OF THE AMERICAN ARCHITECT:

Sir, — In a recent number of the *American Architect* you very justly pointed out that the experience of New York warned other cities that the erection of an elevated steam railway was equivalent to the destruction of the street on which it was placed.

A plan is now being determinedly brought forward to build a steam freight elevated railroad on Market Street, of this city, from the Delaware to Thirty-fifth Street. You will realize the extraordinary nature of this proposition when you consider that the city is now engaged in building, at the intersection of Market Street and Broad Street, an enormous pile of very ornate buildings for municipal purposes, to cost about \$12,000,000, of which the marble work, chiefly for ornamental purposes, is actually under contract for five millions. The building is nearly square, with four full fronts, all very costly.

The elevated railroad is to pass in such a way as to entirely destroy the architectural effect of all the fronts but one.

That is, the line of road passes up Market Street with a double track twenty-six feet wide, passes along one half the east front, passes the whole of the north front and one half the west front. It has been intended to make the approach to the buildings very imposing in each direction, and great expense has been already gone to for that purpose. Of all this, three fourths will be destroyed by the road, if built.

But this is not all. Many of the rooms in the new building have been intended for court rooms. It has been doubted whether the street noises would not greatly interfere with the transaction of court business, and whether it might not be necessary to keep the windows closed, even in hot weather. Now New York experience shows that ordinary street noises are as nothing compared with the noises of an elevated railroad. On Sixth Avenue it is said to be almost impossible to carry on conversation in the front rooms, and even very difficult in the back rooms.

The absurdity of this Market Street scheme is so great that it would seem impossible of success if it were not being urged on by the Pennsylvania Railroad, — a corporation accustomed to buy or force its way. The engineering of the scheme is being done for the railroad by a person to whom, more than any other, Philadelphia owes her defective drainage.

CIVIS.

HOW THE FRENCH GOVERNMENT BUYS PICTURES.

A CORRESPONDENT writing from Paris says: A friend writes me, asking if there is not some mistake in the price given in the newspapers for Vibert's picture of the "Apothéose de Thiers," bought by the government. They are only acquainted with the prices given by the United States Government when it orders a work of art, and are surprised to learn that the French nation only pays eight thousand francs for the enormous canvas which already has a world-wide reputation through the reproductions in photography and engraving, and that has been painted by one of France's favorites, whose smallest canvases, that one could put in a pocket, are sure of bringing as much. No, my friend, there is no mistake in the printed figures. Eight thousand francs is all that was paid for that masterpiece, and the frame which encircled it probably cost more than half that sum; but "it was bought by the Government," and we all understand here that that is to say, "We do not pay more for a painting than the cost of the material and the time of a common workman; but we hang the picture bought by us in the gallery of the Luxembourg — the gallery of modern paintings — amongst the great men of today, and you know that ten years after your death if your work is considered worthy, something more than the fashion of a season, your painting will be transferred to the Louvre, and placed beside the old and famous masters, and you become one of that defunct body." And you know the promise of fame is more to an artist than price, — artists, I mean, not simply painters, — and if the Luxembourg Palace would promise to hang all free gifts, every artist who could afford to work for fame only, and many who could not, would order a large canvas and commence a picture, and gossip in the studios would eternally be about So-and-so's picture for the Luxembourg. But it is not so easy, for every year there is a committee appointed "for the selection of works of art for the Government." This committee is formed of artists and deputies; the artists supposed to have the interest of their profession at heart, and the deputies to control the artists who are supposed to have favorites amongst the new comers. Before the pictures are selected, a sum of money is voted for purchasing, and, as a general rule, the paintings are chosen from amongst those which have received recompenses at the annual exhibition, for the annual purchase of paintings is made during the Salon. If a painter receives a medal, he makes a written request to the committee, asking them to purchase his picture, and it is generally understood his request will be granted; for by his written demand it is understood he accepts the governmental price for his work. Thus artists paint large pictures for the Salon, in the hope of receiving a prize. If they are fortunate, they receive a medal, and then are also able to dispose of the huge canvas to the government. They can wish no more. If they miss the medal, then they are fortunate if they can sell to the state to be hung in some provincial gallery, for every large town has a public picture gallery, otherwise many of the huge efforts would have to be returned to the studios. — *Philadelphia Bulletin*.

MODERN ILLUSTRATED BOOKS.

A VERY few years ago pictures for books were engraved only on wood or on steel. Wood-cuts, with rare exceptions, were very bad. Steel engravings, technically good, failed in the artistic quality, and were, moreover, very expensive. "Books of beauty" and annuals were illustrated at enormous cost; and the price of a book no bigger than one of our shilling magazines was a guinea, and even then only paid its publisher when there was a large sale. An attempt to introduce better designs was made almost simultaneously by Seymour, Cruikshank, and Hablot Browne, the last better known as "Phiz." These artists etched their own works, and dispensed with the services of the engraver, who in other cases so often marred the best

design by clumsy or conventional execution. At the present day book illustration is in a transitional state. First, we have photography, with some hundreds of processes by which the artistic drawing may be transferred to the pages of a printed book with as little interference as possible from the engraver. Next, we have pure etching, which labors under the disadvantage of requiring separate pages and a different quality of paper from the letterpress. Wood-cutting has been brought to a point of perfection it has never attained before. Some of the American engravers are far ahead of any on this side of the Atlantic, and only want artists worthy of them to make a revival of the art of Bewick possible. We have not at the present time in England a single wood-engraver of the first rank, except for landscapes; but one or two of the French cutters are able to imitate steel-engraving on blocks with a success worthy of a better art. Lithography by itself is not common now, though Mr. Pooley in one of the books before us has used it with considerable advantage. Chromatic printing must be considered, on the whole, the coming art. Yet color is sparingly used in illustrated books, for the obvious reason that it can only be made to pay its expenses where the sale is very large, while it is impossible to print a great number of impressions of a colored picture without serious deterioration. Chromo-lithography led the way, some twenty years ago or more, with imitations of water-color drawings, so good as to give rise to the best hopes of art of this kind. Almost immediately, however, for the reasons we have given, they fell off, and few things more deplorably bad are to be seen than the faded, crude, ragged prints from Rowbotham or Harding which hang in every lodging-house. The demand for Christmas cards and valentines of a gorgeous kind brought in a new style of color-printing. Metal plates were successfully tried instead of, or in combination with, stone. The fact was recognized by several of the publishing houses that, to be cheap, good, and suitable for extensive circulation, delicate shading and half tints must be avoided, and designs employed which resemble rather a combination of the style of playing-cards and stained-glass windows. — *Saturday Review*.

NOTES AND CLIPPINGS.

We wish to draw attention to the publishers' advertisement on page vi. of the advertising pages, where it is stated that the numbers of this journal for November and December, 1878, will be given, gratis, to new subscribers who pay their subscription for the ensuing year before December 15, 1878.

THE CINCINNATI CHAPTER, A. I. A. — At a recent meeting of the Cincinnati Chapter, A. I. A., the annual election of officers for the ensuing year resulted in the following choice: President, James W. McLaughlin; Vice-President, E. Anderson; Secretary Charles Crapsey; Treasurer, George W. Rapp.

THE AMERICAN SOCIETY OF CIVIL ENGINEERS. — At the recent annual meeting of the American Society of Civil Engineers the following persons were elected officers of the American Society of Civil Engineers for the year beginning November 6, 1878. President, W. Milnor Roberts; Vice-Presidents, Albert Fink, James B. Francis; Secretary, John Bogart; Treasurer, J. J. R. Croes; Directors, George S. Greene, William H. Paine, C. Vandervoort Smith, Thomas C. Clarke, Theodore G. Ellis.

ACCURATE TUNNELLING. — An exceedingly difficult piece of underground engineering, and one which furnishes an admirable illustration of the accuracy of calculation based on scientific principles, has just been completed in Pennsylvania at the Hampton mine of the Delaware, Lackawanna, and Western Railroad Company. The Scranton *Republican* says: "The mine has been idle for improvements for some time, and the work under notice is the construction of a tunnel in the rock vein, making one slope serve the purpose for which two slopes and a 'dip' were formerly employed, effecting a considerable saving in men, mules, and machinery, and shortening the distance from the scene of the mining operations to the foot of the shaft by at least 2,000 feet. The survey was begun six months ago by Mr. Joseph P. Phillips, Mine Surveyor, under directions of Mr. Snyder, the company's Chief Mining Engineer, and from the outset was attended with the greatest difficulty. Over seven eighths of a mile, principally through old tumble-down workings, had to be surveyed, and 85 sights, at as many different angles, taken before reaching the point opposite the shaft from which operations for the tunnel should be commenced. The most difficult feature was to strike the exact starting-point, so that the tunnel, when completed, would be found mathematically correct on grade and point. A variation of a few feet up, down, right, or left would entail additional cost and labor in going over the task to secure uniformity, so that it is not to be wondered at that those responsible for the work regarded it with some anxiety until the workmen met in the middle of the tunnel, and proved the problem to be correct. At least a quarter of a mile of the survey was made through old workings where the roof had fallen in, and in some places the space was no more than two feet high, so that Mr. Phillips and his assistants were compelled to crawl through it. The survey was plotted on a scale of 100 feet to the inch, and the result on Saturday last, when the men who had been tunnelling in opposite directions cleared away the last barrier, and met face to face, was of the most satisfactory character. Every line came out just as it had been computed, and the work was complimented on all sides."

THE OLDEST SPECIMENS OF IRON. — The sickles found by Belzoni under the pedestal of the Sphinx, at Karnac, near Thebes, the blades which Wyse found embedded in the wall of the Great Pyramid, and the piece of a saw which Layard dug up at Nimroud are the oldest known pieces of wrought iron extant. They are kept in the British Museum.

CONVICT LABOR. — A convention of stone-cutters of the United States and Canada was held in New York on Saturday, November 2d, at which resolutions were adopted denouncing the present system of contract convict labor as tending to bring honest labor down to the level of convict labor besides being ruinous to the interests of workmen, and requesting all workmen to unite and defeat any person who favors convict labor and demand from all persons who may request their votes, that they will oppose convict labor.

THE DECAY OF ITALIAN ART. — The inferiority of Italian paintings and sculptures, more particularly the inferiority of the latter, which was noticed at the Centennial Exhibition, was so apparent in the Italian contribution to the French Exhibition which has just closed that it has been thought necessary, in the interests of the future development of art in Italy, to make an inquiry into the manner of conducting the various schools of art and the methods there practised. Accordingly, the Minister of Public Instruction has directed the Commendatore Salazarro, the director of the Pinakotheca at Naples, to make a tour of inspection among the schools, "with a view of discovering to what causes must be attributed the present decay of art in Italy, rendered more obvious than ever by the Italian exhibition of works of art at Paris."

PLUMBING HINTS. — It appears from the *Plumber* that many people are ignorant of the great weight of set wash-trays of slate, especially when full of water and wet clothes, and provide very inadequate supports for them; that the sweating of a water-pipe can be prevented by covering it with a non-absorbent material, such as newspaper; that a good way to prevent pipes leaking at the joints is to grease the gasket and surface of the pipes with tallow before screwing them home; that a crack in an iron pump may be caulked with iron filings and sal-ammoniac, so as to form a rust joint; that a water-back which is too large for the boiler attached, and consequently provides hot water in excess of the demand, will generate steam which will drive the cold water before it, so that when a faucet is opened steam will escape at that point to the alarm of the unwary.

ROMAN ANTIQUITIES AT STRASBURG. — The process of levelling the ground for a central railway terminus at Strasburg has led to the discovery of very many stone coffins, evidently dating from the Roman period, — a discovery which confirms the belief long entertained that this place was the site of a Roman burial-ground. Canon Straub, the president of the local historical society, who takes a great interest in all such matters, has obtained from the military authorities the assistance of several pioneers, and is making much deeper excavations at the new Central Station, in the hope of laying bare the whole plan of the Roman cemetery, and of discovering some objects of special interest to antiquaries.

FRENCH MINERS. — The men live in *chorons*, — that is to say, villages constructed by the company, the houses being let to the men at a nominal price. Thus a miner has a capital house for \$1 a month. There is a good deal of difficulty in gaining information in the *chorons* in consequence of the patois spoken by the inhabitants, their volubility, and the technical terms they employ. It appears that the miners are worked on a system of marchandage, which signifies that several miners make a tender for a vein, engaging with the company to extract the coal at so much the square yard, according to the difficulties of the task. The miners have to bring the coal to the opening of the pit, and it is drawn up by the company. To convey the coal to the spot in question the miners employ *hercheurs*, who are either old miners or boys. When the galleries were first opened the miners had an easy and lucrative business; they worked away with their picks, the *hercheurs* had no distance to carry the coal, and at the end of the day the returns were considerable. However, as the galleries lengthened, and as the depth of the mines increased, the work became less profitable. There was one gallery, for example, which was 1,400 metres long. The men had to keep this gallery in order; they naturally lost a good deal of time in getting in and out of it, and the *hercheurs* not only took a long time conveying the coal to the opening of the pit, but they often lost so much coal by the way that their cart loads were refused. Seven months ago the company did away with work on Sunday; two months ago Monday was suppressed, and no work was to be done on pay-day, which occurs twice a month. The consequence is that the miner has not only a much harder task than before, but he can work for only eighteen days in the month. — *Pall Mall Gazette*.

THE DANGERS OF PICTURE CLEANING. — A Frenchman, while travelling on a railway with an Italian painter, confided to him the fact that he was the possessor of a veritable Pinturicchio, which had been handed down to him as an heirloom. The works of this old master, who was born in 1454 and died in 1513, are extremely rare. The Louvre possesses only one copy, a Virgin and child, and connoisseurs are even doubtful of its being genuine. The picture of the French gentleman showed great signs of age, and was in want of being carefully restored. The Italian, having examined it, undertook the task. At the end of a month the picture was returned to its owner perfectly restored, and the Frenchman, who considered himself a great connoisseur, paid the Italian handsomely for his skill. A short time afterward a friend, who really was a good judge of art, happened to pay a visit, and, struck with the picture, which was hung up in a handsome frame in the post of honor, exclaimed: "Why, you have had your Pinturicchio copied!" The picture was taken down, and the panel being turned around showed the unmistakable signs of age in its worm-eaten condition and the grain of the wood. The friend, astonished, but unconvinced, examined it more closely. "You have not remarked," said he, "that the panel is diminished in thickness." "Why, no." "It is your own panel," continued he, "but it is not your picture. The wood, being thick, has been cut in two with a hair saw, and thus two panels have been made, on one of which was the original. This has been stolen. On the other a clever copy has been made, which is the one you at present possess." The Italian was obliged to confess the fraud, and also that the original had been sold at an exorbitant price to an American, who had been on a visit to Paris to see the Exhibition. — *Exchange*.