

THE AMERICAN ARCHITECT AND BUILDING NEWS

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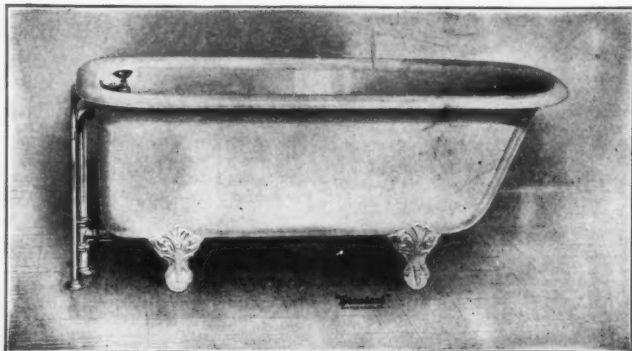
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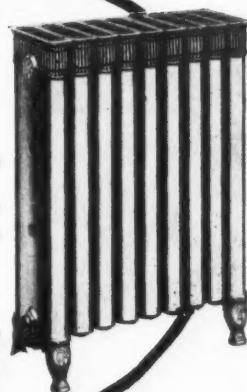
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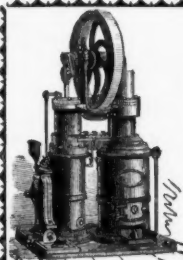
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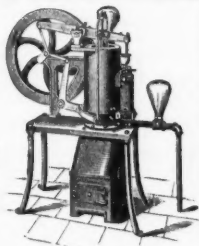
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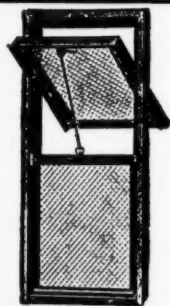
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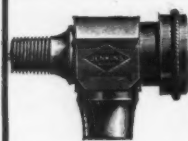
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THE loss on eight of the so-called fireproof buildings affected by the Baltimore fire in February has at length been finally adjusted and the prime loss to the investors in these properties—the Continental Trust Building, the Maryland Trust Building, the International Trust Building, the Union Trust Building, the Equitable Building, the Calvert Building, the "Herald" Building, and the Merchants' National Bank Building—is now definitely determined. These eight buildings are appraised as having been worth at the time of the fire \$4,195,853, and the damage to them by fire is computed as \$2,690,107, or rather more than sixty per cent. After the insurance has been paid and deducted there is found a net loss of \$592,382 to be distributed amongst the owners of these buildings. Increase this sum by the loss of rent and interest during rebuilding and the greater relative cost of repair work over original building and it will be seen that these very fully-insured owners have a very substantial grievance against whomsoever it was who allowed them to believe they were investing their money in really fireproof buildings.

IF any one in Boston has a doubt as to the value in the landscape of church towers and spires, he can test the matter from several points of view by getting into one group the towers and spires of Arlington Street, Central, First Baptist, Trinity and New Old South Churches, all good and characteristic pieces of design and as a group counting in the view in so satisfactory a way that the observer cannot but feel that it would be tame and uninteresting without them. In like way the down-town churches used to add interest to the scene when approached from the water side, but little by little they have been displaced, some by the hand of man, others by a higher power, as for example the lofty spire in Somerset street which was wrecked by the great hurricane of 1869. That spire, by the way, had more than an ornamental usefulness, as it was used as a range mark by pilots entering Boston Harbor, and for a long time was seriously missed by the maritime fraternity. How long habit subsists, we noted the other day when, in turning out of Devonshire street, we

unconsciously glanced up to note the time by the "Church Green" clock, although both clock and church had vanished nearly forty years ago. If there were no better reason for preserving Park Street Church, the fact that the removal of its well-known clock would for years be a daily annoyance to thousands would be almost reason enough for its preservation; and when there is added to this the absence in the landscape of its familiar and beautiful tower and spire, we feel that every effort should be made to prevent a loss which will be so real from several points of view.

WE are not concerned with the difficulties of maintaining in successful operation a "down-town" church, and we can easily comprehend the unreasonable-ness of asking a parish to sacrifice its worldly and spiritual welfare largely for the sake of merely avoiding to wound the æsthetic sensibilities of other people. We do not feel that the church fabric, so far as the body of the building is concerned, has enough of historic association connected with it to warrant preservation, but we do feel that the tower and spire should be preserved on other grounds. It has been suggested that this portion of the building at least, in case of sale, should be taken down and re-erected elsewhere in the city. This would be better than nothing; but associations, convenience and landscape effect demand that it should be kept where it is, or nearly where it is. All these three demands could be met by moving the tower and spire across Park Street onto the Common, where the City of Boston would probably be willing to have it stand, and when there it could be utilized as an elevator entrance to the subway station below it, in just the manner that the tower of St. Mary Woolnoth in London is used as an elevator entrance to the underground railway station. It would be a very pretty piece of engineering to move bodily so lofty a structure over tunnel-work that had not been built with a view to such passage over it, and the "sidewalk committee" would record a full membership during the operation.

SOME Chicago newspaper man, who feels evidently that sidewalk committees consist wholly of vacuous and temperamentally idle persons, has recently spent some of his own valuable time in computing the time lost by idlers, as he supposes them to be, in watching the erection of a sky-scraper just across from his office. His figures satisfy him that the total amount of observation given to the building from the sidewalk would have taken three hundred and fifteen men watching eight hours a day for a year, and upon this deduction bases all sorts of moral observations on wasted time. As we have frequently joined a sidewalk committee, we are confident that these gatherings, seemingly of mere idlers, are really there to learn in the best of all schools, the school of actual practice, and that even the office-boy halting there, who is seemingly defrauding his employer of his valuable service, quite as often deserves commendation as rebuke. Ordinary men, particularly those in the lower walks of life, find themselves obliged to make such frequent change of employment that there is never any means of knowing how soon some piece of knowledge they may have picked up from the sidewalk may enable

them to earn their bread in an occupation different from the one from whose pay-roll they had just been displaced.

THE State of Kentucky has appointed as architect of its proposed new State-house Mr. Frank Mills Andrews, of Dayton, O., and in so doing has done just what many architects protest should always be done, that is, given the work to a man whom the authorities are satisfied can suit them with his work, and yet a thing these very same architects are likely to protest against, since the commission for an important public building has been assigned without competition. It is curious how agilely inconsistent architects can be on this matter. Their point-of-view changes with each new opportunity that comes up. If direct selection and appointment had been decided on because of disgust over the Pennsylvania Capitol scandal, it would not have been surprising; but, as a matter of fact, Mr. Andrews was selected for the work because the new State-house at Jackson, Miss., recently erected under his charge, had proved a satisfactory piece of construction and design, and the fact that it was built within the appropriation was an excellent guaranty of his ability as a man of business. As the new building is to stand on the site of the present State-House, that creditable piece of Classic design will have to be lost to the future.

THE real value of the architects' license laws that have been adopted by sundry States appears to have been logically determined by a justice of the Supreme Court of New Jersey, a few days ago, in a manner that can hardly please the advocates of such laws. Attempt to disguise it how they will, the object of the promoters of these laws squints more at effecting a "restraint of trade" than at throwing greater protection about the public, which is the assigned reason for their formulation. In the case in question, the State Board of Architecture had declined to issue a license to Mr. Newman H. Raymond, of Jersey City, on the ground that he was not a practising architect but was merely a builder. The Court set this decision aside and ordered the Board to issue a license to the applicant, on the ground that he had studied architectural construction and had prepared the plans and specifications in accordance with which thirty-seven buildings had been satisfactorily erected. As no State has attempted to rest the issue of a license on the artistic competency of the applicant, the public has no means of knowing whether a "licensed architect" may not be the veriest Phillistine in matters of design; it only knows he is competent to build safely, and now that it is determined that a builder who safely executes his own design may secure a license as an "architect" the profession, in New Jersey at least, seem likely to find that in place of narrowing the field they have widened it, and made its boundaries less definite than before. We have always felt these license laws to be ill-advised, and that it should be left to the architectural societies, with their examinations, to determine the "who is who" in the profession.

ONE of the bitterest labor difficulties of the season has practically put an end to building operations of all kinds in New Orleans, where organized labor has been unable to bring the associated master-builders to their terms and establish a close-shop régime for the city. One of the latest moves of the Unions is a distinct novelty, and its successful carrying-

out would find quick imitation in other places. There is abundant work in the city waiting to be done and the mechanics are willing, even eager, to do it—in the Union way; but the master-builders will not come to their terms. The Unions therefore propose to import, from the North, master-builders who will bring their resources to the city and, having agreed to the Union terms, will then be in a position to get all the help they need for carrying out the work that owners are only too anxious to have done by some one in some way, but which the local master-builders cannot handle since they can get no men to work for them.

THE method adopted by the trustees of the McKinley National Memorial Association to secure a design for the memorial to President McKinley at Canton, O., is adapted to secure a more satisfactory result than could probably be had in any other way. The four successful competitors in an open competition are asked to compete in a final competition, not only with one another but with half a dozen architects of known standing carefully selected by the trustees. The trustees in this way get the possible assistance of any undiscovered talent that is willing to risk its time in an open competition, and at the same time are not deprived of the help that may be given by men of the highest attainment, who feel it would be a derogation of their dignity to take part in an open scramble. In this case, it happens that the four men successful in the open competition are all well known, though in years belonging to the second and third flights, and grade in capacity very satisfactorily with the specially invited competitors in the final trial. In such cases as this, however, perfect fairness would require that the subject of the first competition should not be the actual subject: the object is to discover the performer, not his performance, and it may be as unfair to give the first men practically twice the time given to the second ones, as to pit the somewhat jaded minds of the first ones against the unjaded perceptions of the specially invited men.

THE citizens of Chicago are undergoing a very unpleasant period of self-questioning, in view of the fact that St. Louis may win its case in the matter of the pollution of its own water-supply by Chicago sewage. It was largely believed that shortly after the opening of the great drainage-canal it would be found that the near-by water of Lake Michigan would be safely potable, but this was very shortly found to be a popular delusion. However, the situation had been improved, and, moreover, the system of intercepting sewers was still incomplete. The third of these sewers has just been finished, and it is expected to keep from the Lake thirty-seven per cent of the one-time total of polluting matter, so that the drinking-water should shortly be considerably better than it is now. This sewer, which has cost three million dollars, has been constructed by the city by days' work, this method being adopted not for political reasons, but because the contractors for the earlier sewers had found it necessary to put in heavy bills for extras which had to be paid, and yet the authorities felt that the original estimates were really liberal enough. The chances are that the third sewer may be the better built of the three, but we very much question whether it can show the smallest cost per running foot. A city is too good a paymaster for a long-sighted bricklayer to part company with any sooner than need be.

FRENCH BUILDING LAW IN CANADA.¹

WHEN Adam delved and Eve span, I presume Adam was his own architect; and when Noah built the ark I presume also he was his own architect under the guiding hand of Providence. Since then architecture has advanced with advancing civilization and with its advance the law in respect thereto has become gradually more and more complete, more and more crystallized by commentators and judicial decisions. Our own law is that of the French law before the Code Napoleon, although that Code differs but slightly from ours on the subject.

We will consider this evening the question of the "ten-year guarantee." The nature of the contract entered into between the proprietor and the architect is one of *louage d'ouvrage*, or lease and hire and work—a contract by which one of the parties agrees to do something for the other in consideration of a certain price. Thus the architect leases his work represented by the plans and specifications, and by his time and attention if he also directs the construction. Now, as a rule, and as a matter of common law, the reception by the proprietor of work done releases the workman in respect of that particular work, in the absence of fraud on his part; but our law governing architects in this regard is found in Articles 1,688 and 2,259 of the Civil Code of Lower Canada, which derogate from the common law and are as follows: (1,688) If a building perish in whole or in part within ten years from a defect in construction, or even from the unfavorable nature of the ground, the architect superintending the work and the builder are jointly and severally liable for the loss; and 2,259 says, "after ten years architects and contractors are discharged from the warranty of the work they have done or directed."

While at first sight this guarantee may seem to some unduly severe, yet reflection will lead to the conviction that it is a most salutary measure. In passing this law the Legislature had a threefold object—the proprietor was to be protected against his own ignorance, the architect and builder against their carelessness and neglect by means of this wholesome threat, and the public from the danger to which it might be exposed from the ignorance of the former and the carelessness of the latter. We thus see that not only are private interests at stake, but also public order, and this principle will be found the very fountain and source of the architect's weighty responsibility.

What structures does the Code refer to when it says in Article 1,688, "if a building perish," and in Article 2,259, that architects are discharged from the work they have done or directed? Taking these two articles together, the courts in France have decided that any habitation, no matter how small, for men or animals, would be considered a building. Greater repairs, modification of old buildings which would affect the solidity of the main building, the establishment of a well, of a bridge, of a terrace-wall, or of chimneys have all been held by French authors to be works subject to this guarantee. Accessory works not affecting the solidity of the structure itself would, however, not come under this heading. The question of fact in each particular case must be decided by the Court on its merits, but this guiding principle must prevail, that there is only a guarantee in respect of immovable constructions, and where time alone will discover the defects thereof.

Now, what classes of people are subject to this guarantee? Evidently not the manual laborer who only leases his services. There is no *lien de droit* between him and the owner, and his liability, if any ever attaches to him, is that of the general law—that everyone is responsible for his own fault. On the other hand, the lessor of work, whose object is an immovable, is liable to this guarantee, and these lessors are architects, builders and civil engineers. Under Article 1,696 masons, carpenters and other workmen who undertake work by contract for a fixed price are subject to the rules prescribed in this section. They are regarded as contractors with respect to such work. The position of the sub-contractor has been the subject of a good deal of discussion, and the French authors are divided upon the subject. Those who maintain that as there is no *lien* between the proprietor and sub-contractor, he should not be subjected to this guarantee, have the weight of jurisprudence on their side. And, indeed, if this were not so the principle of public order would be violated, inasmuch as persons without skill and without experience would take contracts with the sole object of sub-letting them. Such a system would result to the advantage of the careless and ignorant builder, and it would multiply litigation in multiplying sub-contracts. Generally speaking, therefore, we may say that those only are subject to this guarantee who have

undertaken directly with the owner either the conduct or the construction of an immovable or of an integral part thereof.

The architect with respect to the proprietor may occupy two different positions, and his responsibility will vary accordingly. He may only furnish the plans and specifications, or he may, in addition, direct and control the work. What then will be the extent of his guarantee where he only furnishes the plans and specifications? With regard to the plans, it is evident that he can only warrant them in so far as they have been faithfully followed. His liability therefor will only be for defects which are the necessary consequence of the plans which he has drawn or of the specifications which he has given. Supposing that for motives of economy the proprietor himself employs the workmen to execute plans furnished by an architect, and after the building has been constructed some five or six years it threatens to fall down. The proprietor, in order to exercise a recourse against the architect would require to prove that the plans and specifications had been followed, and that the defect lay in them and not in the construction—such a defect, for example, as a weak foundation or insufficient beams, and so forth.

So also with respect to the material, the architect will only be liable for the nature of the material which he specifies, but not for the quality used by the contractor. Thus, an architect who specified wood where he should have specified steel will be liable if the building be endangered on that account. On the other hand, if he specify a material commonly believed among architects to be proper material, he will not be so liable.

A very much more important and interesting question presents itself with respect to the architect's liability for defects in the ground, where he only furnishes the plan. This point is very much controverted. Some of the French authors, and notably Lepage and Guillaud, consider that the architect has no responsibility with respect to the soil, inasmuch as he may never see it, but that the contractor who is on the spot must answer alone for this. On the other hand, though this guarantee may seem almost too rigorous, there is the question of public order and safety to be considered, and the sounder conclusion would seem to be that the architect is charged with this responsibility. The proprietor asks for a plan for a certain piece of ground. How then can the architect answer for the soundness of his plan if he does not examine the ground? How will he be able to tell of what depth his foundation should be without a careful examination of the soil? This, it seems to me, is the very first thing he should do, and besides is a thing which falls especially within the sphere of his particular knowledge. Without such an examination his foundations will be the merest guesswork—someone must be liable. Shall it be the contractor alone, who as a rule has not so special a knowledge as the architect in that respect, and who on discovering the fault in the soil will have to come to the architect to notify him that his foundations are insufficient, and that he would do well to visit the ground in order to get some idea of what his foundation should be? Surely not. A defect in the soil is intimately connected with a defect in the plan because the plan must vary according to the soil. An error in this respect would be rather an error of conception than of execution. I am therefore of opinion that the architect is liable for defects in the ground even when he only furnishes the plans and specifications. It goes without saying that these defects in soil for which the architect is liable are only such as a careful man, versed in his profession, would discover upon a reasonable examination. The architect's responsibility, then, is this: that he must answer for his plans, for the nature of his materials, and for the soil for which he has drawn his plans—and, of course, under the common law for his own fault which causes damage to the owner, even when the solidity of the building is not in question. If, for example, he were asked to give plans for a school capable of accommodating 500 pupils, and after construction it was found that 300 would crowd it, he would be liable in damages for this fault. If, however, as is generally the case, the architect also directs the work, his responsibility is still more weighty. Besides all of the obligations to which the architect who only furnishes the plans is held, he must warrant their proper execution, must see that the materials are of the proper quality and are properly used, and, generally speaking, is responsible for everything in connection with the building.

Not only in this case is the architect liable for defects in the soil, but he is liable for defects in construction which are only such on account of the peculiar situation of the building. Thus, for example, if the house is to be erected on a high bank exposed to heavy gales, it would be a vice of construction to roof it with slate, if experience had shown that that class of roof could not properly resist heavy winds.

With respect to materials furnished by the owner, the architect is not liable, unless a reasonable examination would have shown him their defective nature. If, on the other hand, they

¹ From a lecture by Mr. S. G. Archibald delivered before the Province of Quebec Association of Architects, and published in the *Canadian Architect*.

are furnished by the contractor, there can be no doubt of his liability, saving always his recourse against such contractor.

All defects, absolute or negative, other than those of soil or material may be called defects of construction—such, for example, as too weak foundations, insufficient dimensions of any of the materials, or a lack of proportion between the different parts so as to affect the solidity of the structure.

In addition to all this there is a presumption of defect in construction under the law, when a building threatens ruin within ten years without extraordinary reason.

But not only are the architect and builder jointly and severally liable for their own work, but they are liable where they have gone on with work already commenced by others; the architect is liable where the plans are furnished by another architect, and the builder is liable where he goes on with work commenced by another. The leading case upon the subject is that of *Wardle v. Bethune*, which was carried to the Privy Council. The facts in that case were as follows (R. L. 637):—

Wardle, a builder, contracted to build Christ Church Cathedral, in Montreal, according to plans furnished by an architect and upon foundations laid by a previous contractor and approved by an architect having charge of the work. Before the cathedral was finished the tower sank and damaged the building. The cause of the sinking was found to be the insufficiency of the foundation as planned by the original architect and constructed by the former builder. This defect, though not patent, might have been discovered by Wardle. It was proved at the trial that Wardle had no knowledge of, and took no part in the testing of the soil or in the designing or planning of the building or foundation. Under these facts the Privy Council held that the builder was responsible for such defects and was not freed from liability either by acting under the direction of his employer's architect or by reason of the fact that the defective foundations were the work of a previous builder. This judgment was a confirmation of judgments already rendered in our Superior and Appeal courts.

The legal question was very fully gone into on both sides and a mass of authorities cited. Counsel for Mr. Wardle argued that as the foundations were not contracted for or executed by him he could not be liable for any defect in their execution, nor for any defect in the soil upon which they were built. He was only bound to put the building on the foundations as they stood, and having done that properly he had no further liability. The plans and drawings were made by an architect employed by the Cathedral, and he, and not the builder, should be held liable. For the Cathedral, the case of *Brown v. Laurie*, the leading case in our courts, was relied upon, and it was contended that both under the old French law and under our law the builder who constructs on insufficient foundation is liable even though he acts under the orders of his employer's architect. If the obligation to answer for the foundations is a necessary part of the obligation to warrant the stability of the building, how can a distinction be made between a builder building on his own foundation and a builder building on a foundation made by another builder? And if a builder is not relieved by following the directions of the architect, how can he be relieved, by the fact that the foundations were already laid, from the duty of examining them? In this case, as in all others of this nature, the element of public policy is not to be lost sight of. In rendering judgment in this case their lordships referred to *Brown v. Laurie*, and adopted the principles there laid down.

Their lordships, after a discussion of the case, went on to state that the broad general rule of law—the rule certain for architects and builders in the execution of the works entrusted to them—is that there is annexed to the contract by force of law a warranty of the solidity of the building that it shall stand for ten years at least; that the approval and directions of a supervising architect, or his omission to ascertain the nature of the soil of the foundation by known and available tests, does not exonerate the builder from the consequences of following such direction, or of building on the foundation without making himself sure of its sufficiency.

In connection with the same building, Scott, the architect, sued Christ Church Cathedral for commission due to him. The defense was that the church had suffered damage for which he was responsible, which more than offset any commission due him. Scott answered that he had faithfully followed the plans of Mr. Wills, the architect who had first been engaged for the building, and that he was not liable for defects in Mr. Wills's plans. This pretension was overruled and the courts laid down the principle that an architect was liable even where he only followed plans of another architect handed him by his employers.

The architect is liable along with the builder for errors committed by the latter, because he is held to see that a work well conceived by him is well executed by the builder—this doctrine

was illustrated in the case of *McDonald v. David*, 14 L. C. R., 31. In this case the floor of a building on St. James Street had sunk in consequence of the insufficiency of the timbers used to support the joists. It was there held that the architects, as well as the carpenters and joiners employed in the erection of the building, were jointly and severally liable for the damages incurred.

It was held in a case of *Cowen v. Evans* that where a contractor undertakes certain works for the proprietor of a building for a certain price, independently of the other contractors, and not having the general direction of the works, he is not liable for the faults of the other contractors. In this case Cowen put a brick wall on the stone foundation of another contractor; after his wall was up some way he found defects in the foundation, pulled down his wall and sued for annulment of the contract. He was answered that he had accepted the foundation and was responsible for it. This plea was dismissed, the court rendering judgment in the sense just quoted. The architect must also warrant that he has not violated any of the municipal regulations or any of the laws of the neighborhood. Thus, if a mitoyen wall be pierced without the neighbors' consent, or if a chimney-hearth be placed directly over beams of wood, or if a well be dug near a neighbor's wall without any counter wall being provided for, in all this class of cases the proprietor could recover not only the damage to his own building but whatever he may have been compelled to pay his neighbor for damage done to him. The architect must build so as to leave no room for any complaint on the part of the neighbors. This guarantee must be distinguished from the guarantee of solidity on the part of the architect, from which he is relieved after ten years. Under Article 1,053 of our Civil Code, everyone is liable for his own fault which causes damage to another. Prescription, therefore, of this action will only begin to run against the owner from the moment when he had knowledge of it, and would not be acquired in favor of the architect for thirty years from that date. This, at least, is the opinion of the majority of the authors, though Duvergier, Troplong, Fremy-Ligneville and Perriquet consider that it is prescribed in ten years, and is in the same position in that respect as the guarantee with respect to solidity. This, however, is hardly a question of practical utility. It will be time enough for you to discuss it when you are actually troubled with it. If a fire were caused through a beam placed underneath a hearth becoming ignited, the action against the architect would lie from the moment of the fire whenever it occurred, and would only prescribe by thirty years. The guarantee of solidity, on the other hand, only lasts for ten years, because the law has fixed this as an arbitrary period after which the building will be presumed to have fallen through some other cause than a defect in construction. The practical effect of this is that a defect which doesn't threaten the ruin of the building for ten years is no defect at all. Even should the whole edifice crumble to the earth in its eleventh year, yet would there be no liability on the architect's part, if no fraud is alleged against him. Not only is there a presumption that the building was properly constructed, there is more—there is an actual bar to any action on the part of the proprietor, who will not be admitted to prove, even out of the mouth of the architect himself, that there was any defect in construction. Questions of guarantee, however, are of no importance the moment fraud is alleged. Everyone is liable for his fraud. If, for example, you have purported to build a stone wall three feet thick, but have in reality filled in the centre with rubbish and have merely put on a stone facing, you could not possibly hope to be discharged in any other way than by thirty years without action on the part of the owner from the date of the discovery of the fraud.

We have seen that the architect under the law is liable for every derogation from the principles of his art and for every infraction of the rules and laws which, as a professional man, he ought to know. Can he, by contract with the proprietor, rid himself of this weighty burden of responsibility? What if, when he has pointed out to the proprietor the defects in the soil or in the material or in the plans furnished him, the proprietor insists on his proceeding and contracts to relieve him from the guarantee imposed upon him by law? What, then, is his position? A glance at the principle in virtue of which this responsibility is placed upon the architect will give us the answer. Public order and safety are concerned, and private individuals cannot by contract derogate from that which concerns public order. The architect is not relieved in such a case, and his duty to himself and the public is to refuse to proceed with the work. It of course goes without saying that he is not responsible towards the proprietor who has so released him, but he would be towards third persons damaged in any way by the ruin of the building.

It is often important to establish the exact day from which this guarantee will begin to run, and this will be from the date when the work was received. It will always be safer to have

this fact fixed by a writing. All doubt upon this point will then be removed, and the interest of both proprietor and architect better served. The question of prescription of this action has some theoretic interest, but is not of practical importance for the moment. It is contended, on the one hand, that the arbitrary term of ten years puts an end to any action against the proprietor even though the building should have fallen down within the ten years. In other words, the owner must sue the architect before the ten years have expired. On the other hand, it is argued that the fall of the building within ten years only gives rise to a right of action, which right will only be prescribed by thirty years, and this latter view seems to me the more sound of the two. The question of burden of proof with respect to this guarantee is a most interesting and important one. Does Article 1,688, when it says that the architect and the builder are jointly and severally liable for the loss, if the building perish within ten years from a defect in construction or from the unfavorable nature of the ground, mean that they will be held guilty until they prove themselves innocent, or does it simply bind them for ten years, when without that article they would have been discharged by the reception of the work? It can readily be seen how vitally this question interests the architect. Who must prove his case, the plaintiff who demands damages, or the architect who says "I am not responsible"?

At common law the reception of the work would discharge the workman. The proprietor has had an opportunity to examine it, has examined it and has received and paid for it, and the workman's responsibility ceases. But in this case Article 1,688 specially derogates from this principle, and says "architects and builders must guarantee their work for ten years." The French authors are very much divided upon this question. Troplong, Duvergier, Guillouard and Laurent argue that fault is not presumed, and that all Article 1,688 intended was to carry the architect outside the common law, which would have liberated him from the moment his work had been received by the proprietor. These are onerous sections, and must be interpreted strictly, and the very fact of the reception of the work creates a presumption that it was well done. The article does not say that they are presumed to be in fault, it simply says that if the defect exist they are liable for it. They argue, therefore, that the proprietor plaintiff, in responsibility, must prove the fault which he alleges.

On the other hand, Marcade, Fremy-Ligneville, Aubry, and Rau and others consider that until the architect clears himself the damage caused will be presumed to be caused by his fault. This contention has the advantage of being supported by the jurisprudence in France. In my opinion it is the correct solution. A building which falls down can only do so through defect of construction, material or soil, or on account of some extraordinary event which could easily be established in proof. Now the architect for ten years must guarantee the building against all these causes save the last, and it will be perfectly easy for him to make affirmative proof of any fortuitous event which may have caused the ruin, and if he can't do this he is liable.

If this were not so, you would force the proprietor to make negative proof; because, if he must prove that defects of construction caused the ruin, he must prove the particular defects, and this, in cases where the building had fallen down, might be very difficult proof indeed for him to make. He would often be forced to attempt to prove that nothing else could have caused the ruin, forced to go through a process of elimination—in fact, forced to make negative proof. I do not believe that that was the intention or the spirit of the law. As I have already said, the Legislature in placing this heavy responsibility on architects and builders did so because public order and public safety were involved. Architects and builders must at all cost be thoroughly alive to the importance of building well and safely, and that is why this salutary burden was placed upon their shoulders. The building must stand for ten years, or the architect must show good cause for its not doing so. While this interpretation may not be in accordance with the exact wording of the Code, yet I do think it is in accordance with its spirit.

The Privy Council in the case of *Wardle v. Bethune* already cited, while not called upon to pass upon this point, gave expression to the opinion that the onus would be on the builder in the circumstances under discussion.

It is hardly necessary for me to say that this liability of the architect or builder for the whole amount of the damage suffered has only reference to the proprietor, and that as between ourselves each is liable for his own fault. Thus the architect would alone be liable for defects of construction depending solely on defects of plan. On the other hand, the builder would be alone liable for his own mistakes where the architect had only furnished the plan. Where the architect has also directed the work, each is liable for his own fault. The builder would not be allowed to set up the negligence of the architect with respect to a

fault committed by himself. As regards third parties, Article 1,688, which we have been discussing, would have no application. The architect's responsibility towards them would be governed by the general law contained in Article 1,053, that every one is responsible for his own fault which causes damage to another.

We have seen therefore, gentlemen, that you are under a serious responsibility to look to it that the buildings you erect are solid and built according to the rules of the profession to which you belong, and further, that you cannot liberate yourself from this burden even by contract with the proprietor, because as private individuals you cannot derogate from the laws of public order which concern all citizens, and to which all private interests are subordinated.

THE OXFORD EXHIBITION OF HISTORICAL PORTRAITS.

IT is curious that almost simultaneously an exhibition of "Primitives" has been held in Paris and in Oxford. Is it a case of simple coincidence, or a case of "*les beaux esprits*," etc.; or did Paris suggest the idea to Oxford? It matters not.

Of course, the Paris show is vastly the superior, being rich in Clouets, and his school, and his followers; Oxford only shows one important work of art, Holbein's "Archbishop Warham," belonging to Lord Dilon, the replica of the one in the Louvre. Or is the latter the replica—experts differ—and again, what matters it, seeing that both are genuine, and both are fine examples of the great Hans's workmanship?

The Oxford portraits are more interesting historically than artistically. Many probably were fancy portraits, technically termed "proxies." Queen Elizabeth figures as the work of Zuccaro—most of her portraits are so attributed. Queen Philippa may probably have been copied from her monument in Westminster Abbey Church. Of course, portrait painting was a later development of the sixteenth and seventeenth centuries, although the Richard II in the Abbey and the beautiful diptych of the same king at Wilton House (Lord Pembroke's) are very probably contemporary portraits.

The series contains pictures of Queen Elizabeth Woodville, Henry VII, Edward III, Henry V, Bishop William of Wykeham, founder of Winchester College and New College, Oxford, Bishops Waynflete and Gardiner, Sir Thomas Wyatt, Anne of Cleves, Bishop Foxe, Queen Mary Tudor, Henry VIII, Lady Jane Grey, Sir Francis Walsingham, Henry, Prince of Wales, James I, and Prince Charles. The period covered is that ending with the death of James I, or soon after. Many of the portraits figured in the Tudor Exhibition at the New Gallery in 1890.

Specially to be noted is the beautiful portrait of Anne of Cleves belonging to Trinity College. There is a remarkable resemblance in this to the Holbein portrait of the same queen in the Louvre. The *coiffure*, the jewelry, and the dress are almost identical. In the Louvre picture the queen wears a mantle, covering parts of the sleeves. Possibly this picture also may be the work of Holbein?

Whatever the artistic qualities of these pictures may be, and whomsoever they may represent, there is no doubt that there is a vast amount of character displayed in the physiognomies, infinitely more than one is accustomed to see in the ordinary modern portrait. The old painters did not mind depicting ugliness. Was it a happy want of vanity in the sitters? or was it a love of truth in both artist and model? In any case, there is no doubt that when the modern portraits by all but the really great painters (and how few there are!) have lived two or three hundred years, there will be vastly little interest in them, either as portraits or for their craftsmanship. Think only of the mass of canvases covered with caricatures of our late Queen or of the present King and Queen; of huntsmen, gentlemen in uniform, and ladies in the last fashions! We laughed at Sir Francis Grant's lady at the Burlington House Winter Exhibition, in looped-up gown over a scarlet (and what a scarlet!) petticoat, and "pork pie" hat; but will the ordinary portraits of the present generation look one whit more artistic to our great-grandchildren—if they survive! Much of the present day *technique* is utterly bad in all countries, and the smirks of lady models do not redeem the indifferent workmanship. Sir Thomas Lawrence made most of his ladies simpering semi-idiots, but at least he could use a brush; was now and then a colorist, and followed certain traditions of the great eighteenth century men. But we seem to get farther and farther from Reynolds, Romney, Gainsborough and Hoppner; and the really good portraitists of this period could, if they were summed up from all countries, probably be counted upon the ten fingers of our hands.

S. BEALE.

MODERN ROME.

AN article appears in the *Morning Post* by Mr. Frank Hird, in which he says:—

WHEN Rome became the capital of Italy there were meadows and vineyards close to the gates, and the superb gardens of the Ludovisi Villa within the walls on the northeast of the city. To-day the meadows and vineyards on the Vatican side of the Tiber have disappeared, and in their place is a small world of villas, so fantastic and so varied in architecture as to suggest that the models were taken from the Rue des Nations at the Paris Exhibition; and the Ludovisi gardens are covered by broad streets cutting each other rectangularly, with lofty houses and the general appearance of having been transported bodily from a German residenzstadt. Close to the fantastic villas, which represent Roman suburbanism as do Balham and the Tootings that of London, are the streets of half-finished houses which were run up hastily during the building fever that followed the occupation, to provide for the great influx of population, confidently prophesied and never fulfilled. Zola has described the palaces built for nobles who never occupied them, the great blocks of houses which were to be inhabited by the wealthy merchants and a prospering middle class, crumbling in unsightly and depressing ruin. But these are now being occupied gradually, chiefly by the poorer classes, after being the haunt and shelter of beggars for nearly twenty years. The banks into whose possession they passed at the general bankruptcy among the building speculators, finding that these houses continued to represent idle capital, have been completing them slowly. Many half-finished houses still remain roofless and with gaunt windows, one such street being close to the walls of the Vatican garden; but Zola's description of the quarter no longer holds good in its entirety.

Through the demolitions in various parts of the city, rents in the older quarters have risen to such an extent that there have been deputations from the working classes to the municipality to protest, and a suggestion has even been made that the Government should legislate with regard to the workman's rent as it has already legislated for the regulation of the price of his bread. This increase of rent, which the working classes cannot possibly support, has led to the gradual population of the formerly desolate region beyond the Tiber, known as the Prati, and new districts outside the southern gates where there is certainly more air and more sunshine than in the city proper, and where there are larger rooms for the poor and at less expense. But apart from the cause of rent there is a general tendency outwards from the center, from the dark, narrow streets of Old Rome, where there are no footways, and where cabs, carriages, carts and pedestrians escape constant collision by miracles, and where the lower floors of the grim houses never get the sun, to the wide boulevards with their trees and pavements of the new quarters, and to the blocks of buildings that are rising outside nearly every gate of the city. The upper classes show the same tendency, and the villas built outside the Porta Pia and on the outer confines of the Ludovisi quarter are occupied for the most part by people who ten or fifteen years ago would have been placed at daily social inconvenience if they had lived without the walls.

And yet the increase of dwellings, both within and without the boundaries of the city, has not brought an increasing amount to the income of the municipality. It was Depretis who first advocated the extension and embellishment of Rome that it might be more worthy of its position as the capital of Italy. Certain works were undertaken by the Government, certain works by the municipality, and the latter, after some years, found itself in difficulties and with a heavy load of debt. As this debt had been incurred solely because Rome was the capital, the Government came to the assistance of the municipality and made it a yearly grant, taking in return the whole of the *dazio*—the tax paid on all food entering the city. But since that time Rome has again increased, and more burdens are laid on the municipality, with the result that when the interest on the borrowed millions, the expense of public health and sanitation—this alone swallows up a considerable portion of the sum from the Government—lighting, etc., are paid, there is practically nothing left. The increase of the population naturally means an increase in the *dazio*, but the municipality does not benefit, and at the same time the growth of new streets and quarters adds enormously to its working expense. History, therefore, is repeating itself, and the Government and the municipality are once more considering the subject of further assistance from the national exchequer, or a rearrangement of the existing position between them. Rome has no manufactures. It is purely a residential city, and is a capital without the resources that the capitals of

great European countries possess. The fact that it is the seat of government throws heavy and additional charges of maintenance on the municipality, which by the present arrangement has to meet yearly increasing charges out of a fixed income. It is for this reason that many of the municipal works are still incomplete, such as the half-demolished houses by the Tiber opposite St. Angelo which mark the last remains of the old Ghetto, and that the hideous iron bridge over which the electric trams run to St. Peter's still remains an unsightly blot. There are those who deplore the great stone embankments which stretch in white lines along either side of the Tiber, but they are undoubtedly the guardians of the health of Rome, the fevers that spread through the city after the almost annual inundations of the river into the lower lying districts being now unknown. British people are apt to be loud in their lamentations over the changes that are yearly taking place in the Eternal City. There has certainly been much wanton destruction; but an Italian lady put the matter in a nutshell when she asked a British lady who was complaining of the new quarters and the swift disappearance of picturesqueness from the city, "Madam, does Rome exist for the tourist or for the Italians?" Rome has no manufactures, but it has an industry, and that is the tourist.

Rome is the most cosmopolitan of European cities, but it still retains many of the attributes of provincialism. It is a capital, but it is not metropolitan. It is therefore a city of contradictions, and by reason of its size the contradiction between the old and the new stands out in sharp distinction. There are electric trams in nearly every quarter, but the lines are so badly laid that in some streets they stand from half an inch to an inch above the level of the roadway, with unfortunate results for the vehicular traffic. The electric trams represent the new spirit; the method of laying the lines represents the old.

It is unfortunate that in their building undertakings the modern Romans should have shown themselves lacking in the least particle of the taste which animated their ancestors. A goliath Palace of Justice has been built beyond the Tiber, close to the Castle of St. Angelo. It is still partially surrounded by scaffold poles, though the foundations were laid many years ago. The finished outer walls show heavy windows with obese columns at either side, surmounted by carved wreaths of fruit that in the distance give the effect of strings of sausages. The general appearance is ponderous and ineffective and looks like an attempt after simplicity that has failed, only yielding pretentiousness. The colossal monument to King Victor Emanuel II. on the Capitol, which is absorbing millions of lire, is more worthy of the architectural traditions of Rome. A palace and many houses have been swept away in the Piazza di Venezia that the monument may directly face the Corso and that an uninterrupted view may be obtained of it. The pedestal is not yet completed, but as far as it has gone it seems severe and majestic. Another decade will in all probability pass before the monument, which is to be surmounted by an equestrian statue of the first King of United Italy, is completed. It stands now as another example of the fatal facility of the Italian authorities for embarking on expensive works before they have the means to carry them out. Big schemes are undertaken, houses are demolished, the work is begun, funds run low, and then the operations are abandoned, to remain with their surrounding half-destroyed houses, perhaps for years. In the meantime other schemes are undertaken which naturally share the same fate. At the present moment in Rome, in addition to the Palace of Justice, around which the scaffolding has grown grey with age, there are two partially-completed works that are eyesores—the Victor Emanuel Monument and the entrances to the tunnel under the Quirinal Hill which connects two important thoroughfares of the city. They are surrounded by hoardings and the gaping walls of half-torn-down houses, and besides these there are the remains of the confines of the Ghetto mentioned above, which have stood undisturbed and hideous by the Tiber for the last ten years. Opposed to this the cleanliness of the streets is an example to many an English city, and to London especially, and the public gardens—the Pincio, the Villa Borghese and the Janiculum—could not be more perfectly maintained, swept and garnished. Even to-day the Italians as a nation have not learnt the necessity of hastening slowly. Rome is the most alluring capital in Europe, but though it does exist for the Italians they are rapidly destroying its charm by recklessly embarking on "improvements" before counting the cost.

THE CHATEAU DE VEZ.—The late M. Leon Dru, the engineer, has left to the State the historic Chateau of Vez, with its art collections, on the condition that this fine architectural monument is scheduled among the Monuments Historiques. The testator has left 40,000 francs in *rentes* for keeping up the Chateau, and M. Boeswillwald has been appointed as architect in charge of the work.—*The Builder*.

ILLUSTRATIONS

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

DORMITORIES FOR WELLESLEY COLLEGE, WELLESLEY, MASS. MR. J. A. SCHWEINFURTH, ARCHITECT, BOSTON, MASS.

THE GREAT HALL IN THE TOWN-HALL, COLCHESTER, ENGLAND. MR. JOHN BELCHER, ARCHITECT.

This plate is copied from *The Architect*.

SAVINGS-BANK BUILDING, MONTBRISON, LOIRE, FRANCE. M. GAUDIBERT, ARCHITECT.

This plate is copied from *la Construction Moderne*.

ST. FELIX SCHOOLS, SOUTHWOLD, ENGLAND. MR. ARNOLD MITCHELL, ARCHITECT.

This plate is copied from *The Builder*.

THE FORMIDABLE NAUTICAL SCHOOL, PORTISHEAD, ENGLAND. MR. EDWARD GABRIEL, ARCHITECT.

This plate is copied from *Building News*.

Additional Illustrations in the International Edition.

HOUSE OF FREDERICK P. FISH, ESQ., LONGWOOD, MASS. MESSRS. WINSLOW & BIGELOW, ARCHITECTS, BOSTON, MASS.

GARDEN FRONT OF THE SAME.

STABLE FOR THE SAME.

PALACE OF MANUFACTURES: LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO. MESSRS. CARRERE & HASTINGS, ARCHITECTS, NEW YORK, N. Y.

COMMUNICATIONS

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

A CORRECTION.

PHILADELPHIA, Pa, June 16, 1904.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—In the June 4th issue of your magazine I see a reprint of my lecture before the Engineers' Club of Philadelphia. I wish to thank you very much for giving it the space you have. There is a typographical error, however, in the formula for determining the position of the neutral axis for rectangular beams. The last y should be in the denominator of the fraction, and the formula should read

$$x = 20y \left(-1 + \sqrt{1 + \frac{1}{12y}} \right)$$

If it is possible, I would be pleased to have you note this correction in a subsequent issue of your magazine. Thanking you again, I remain Truly yours, EMILE G. PERROT.

NOTES & CLIPPINGS

MARQUET DE VASSELLOT, SCULPTOR.—France has lost one of its most brilliant sculptors in Marquet de Vasselot, who died last month. He has been an exhibitor at the Salon since 1865. His portraits of and monuments to celebrities include Balzac, Abraham Lincoln, Lamartine, Scribe, Henri Martin, Corot, General Boulanger, Gericault, Musset, J. J. Rousseau, the Comte de Chambord, Gambetta, Rochefort, the Emperor Dom Pedro, Canovas del Castillo and Patti. De Vasselot was born in 1840, and gave up a promising diplomatic future to study art under Bonnat and Jauffroy. His "Balzac" is in the Theatre Francais, and his statue of Chloe in the Luxembourg. He was also noted as an art writer and critic, his "*l'Histoire du Portrait en France*," and another work concerning French sculpture ranking high as critical commentaries.—*N. Y. Evening Post*.

AMERICANS AND THE METRIC SYSTEM.—At the end of last year about 2,800 members of the National Association of Manufacturers were sent a circular letter, with the intention of eliciting, as far as possible, the hostile sentiments of the Association to the Metric System Bill, which, as drafted in 1903, contemplated compulsory adoption of the system in the United States. An analysis of the replies is printed in *American Industries*, and it shows that 774 replies, or about 36 per cent, were received, and in answer to the question, "Should the metric system be made the legal standard of this country?" there were 707 answers recorded, of which 141 were affirmative, 87 non-committal, and 479 negative. Three engineering societies are down as favoring the bill, namely, the Boston Society of Civil Engineers, the Engineers' Society of Western Pennsylvania, and the Western Society of Engineers, and at least three more among the most prominent in the country might have been included in the list if they had been consulted, their pro-metric votes having been officially published. Seven engineering societies are tabulated as against the measure. Among commercial associations, nine are down as in favor of the bill, and fourteen against it. Among manufacturers' associations, two for and twenty-one against. While this might seem to discourage those who favor the bill, they claim that it is a great gain in ten years, and that the time is surely coming when there will be a majority in favor of the system.

FORTUNE FOUND IN A STATUETTE.—Many old-fashioned French people are given to stowing away their pecuniary possessions in odd nooks and corners, often to the bewilderment of their heirs. A characteristic story comes from the environs of Paris, the heroine of the adventure being an old lady who expired a few months ago. She had put by a certain amount of money, which she bequeathed to two nephews. One of them waived his rights in favor of his brother, merely asking to be allowed to keep a little statuette as a souvenir of their departed relative. One day the servant of this self-denying individual happened to break the statuette, and to the amazement of its owner a lock of hair, a medallion, and last, not least, a number of one-thousand-franc bank notes dropped out from among the fragments. He retained these articles as some compensation for the smashed statuette without mentioning the affair to his brother, but having had occasion shortly afterward to dismiss his servant, she betook herself in hot haste to that gentleman, and related the whole incident. The owner of the statuette has been requested to hand over half the sum to his brother, and has been threatened with a lawsuit in the event of refusal.—*London Telegraph*.

THE MEXICAN MECHANIC.—The Mexican as a mechanic is imitative and slow. He does well, however, in stone, bricks and mortar, for he and his fathers have worked in them for ages. He lays 200 bricks a day; an American lays ten times as many. When a brick does not fit he marks it carefully and then with his trowel hacks away for five minutes, whereas an American would knock off the piece at one quick stroke. Building contractors say that it is cheaper to employ Indians to dig cellars, even when the excavation is to be a large one, than to employ mules and scrapers. An Indian will easily carry two bushels and a half of wet sand out of a hole in the ground—carry it on his back—and will work ten hours for twenty-five cents in gold. The best way, however, to hire an Indian is to pay him a stated sum for a stated task—then he will work; otherwise he will do as little as he can. The Aztecs knew how to cast gold and silver together. In moulding a fish upon a vase they could make the scales of both metals and could alternate them. This likewise they could do with the feathers of a bird. There was iron in their mountains, but they did not know its use. Their cutting tools for stones and metals were made of copper and tin. To-day in the parks of this city Indians can be seen mowing grass at the edges of flower beds and along the borders of the stone walks with pieces of thick tin, four inches long and three inches wide.—*J. B. Morrow in the Boston Transcript*.

PEWTER.—Probably not all even of the enthusiastic visitors to the exhibition of old pewter in Clifford's Inn Hall realize what a very important domestic part pewter played in the days of our distant ancestors. A peep at some of the household books of the Stuart days is quite a revelation on this point. In 1664, for instance, Sir Miles Stapleton, a Yorkshire baronet, took it into his head to replenish his stock of pewter, and here are a few of his many purchases, as recorded in his own handwriting: "It, paid for six large puter platters or dishes at 1s. 7d. a pound, and they weighed 57 pound and a half, which comes to £04.01.05; paid for two dozen of puter plates at 1s. 6d. a pound and they weighed 37 pound, £02.15.06; paid then more for two puter stands for the table, £00.08.00; one gallon puter can and six porringers, £00.19.06; paid to William Hutchinson, of Yorke, for 17 new puter dishes for the table weighing 74 pounds at 12 pence a pound £03.14.09." And among other purchases at the same time are two dozen new pewter plates for 32s.; another two dozen at 15s. a dozen, and a large quantity of spoons, basins and candlesticks.—*Westminster Gazette*.

INCOMBUSTIBLE CELLULOSE.—It is reported that two Frenchmen, MM. Mabilbe and Lerclerc, have patented a process for making a kind of celluloid which is incombustible. To a solution of celluloid is added a mixture of ether and alcohol containing iron salts. A clear liquid of the consistency of syrup results, and if the

solvents are driven off from this, an incombustible non-inflammable celluloid remains. It would appear from the announcement that a chloride of iron is used, since it is stated that should the celluloid become heated the gases of the chlorine components would extinguish the flames. The material can be worked as easily as ordinary celluloid, and it is thought that it will be valuable in the manufacture of electrical apparatus.—*N. Y. Evening Post*.

THE USES OF THE ROPE.—While the longest ropes are used for hauling purposes, some of the most interesting data in connection with wire ropes are obtained with their use for hoisting purposes. Hundreds of thousands of lives are literally each day hung by a small wire thread as the men are lowered into and hoisted from the bowels of the earth, and in many cases the only means of communication between the surface and the underground workings, which are from a few feet to a mile in depth, is by a comparatively small hoisting rope. Think of hanging from the end of a cable only a few inches in diameter and a mile long, being hoisted at a rate which is faster than that of the average railroad train, and some idea of the hoisting problem can be gained. To the honor of the wire-rope manufacturers, it must be said that very few shaft accidents are due to the breaking of the rope, excepting where the cage is over-wound and unwarranted demands are made upon the rope, or which are traceable to false economy on the part of the users of wire rope. No part of a mining plant is more carefully inspected and watched than the hoisting rope, and very few mine managers will take any unnecessary risks in the hoisting of men. The skill of the wire-rope maker is taxed to the utmost to provide ropes for hoisting from great depths. To make a rope of practicable size that will be sufficiently flexible and that will bear even its own weight is no mean problem, for in such cases the weight of the rope is often much more than the material lifted. Hence we have taper rope intended to give it a varying section dependent on the amount of rope off the drum or reel.—*Mines and Minerals*.

THE BISHOP OF LONDON AND ST. MARY ALDERMANBURY.—What the eye of the visitor regards as one of the marvels of London is the number of beautiful old churches hidden in bowers of green in unexpected nooks and corners, surrounded by modern counting-houses and stores. The present Bishop of London in his zeal for practical church work would have some of these relics demolished and the sites sold and new churches built in outlying districts, where the people are. One of the threatened City churches is St. Mary Aldermanbury, off Cheapside. But the city merchants, less utilitarian and more sentimental than the bishop, held a vestry meeting and decided to oppose for the second time the scheme for removing the lovely Old-World church. It is to be hoped St. Mary Aldermanbury may be preserved, for it is hallowed by historic and literary memories as well as its ecclesiastical associations. In the little graveyard lie John Heminge and Henry Condell, said to be the two actors in Shakespeare's company at Southwark who, on the dramatist's death, gathered the MSS. of his plays and published them at their own expense. But for their devotion and public spirit the world would have had not one of Shakespeare's works. Within the railings of the church is a monument to these worthies and memorial tablets recording the debt the world owes them. Surmounting it all is a bust of Shakespeare himself.—*Boston Transcript*.

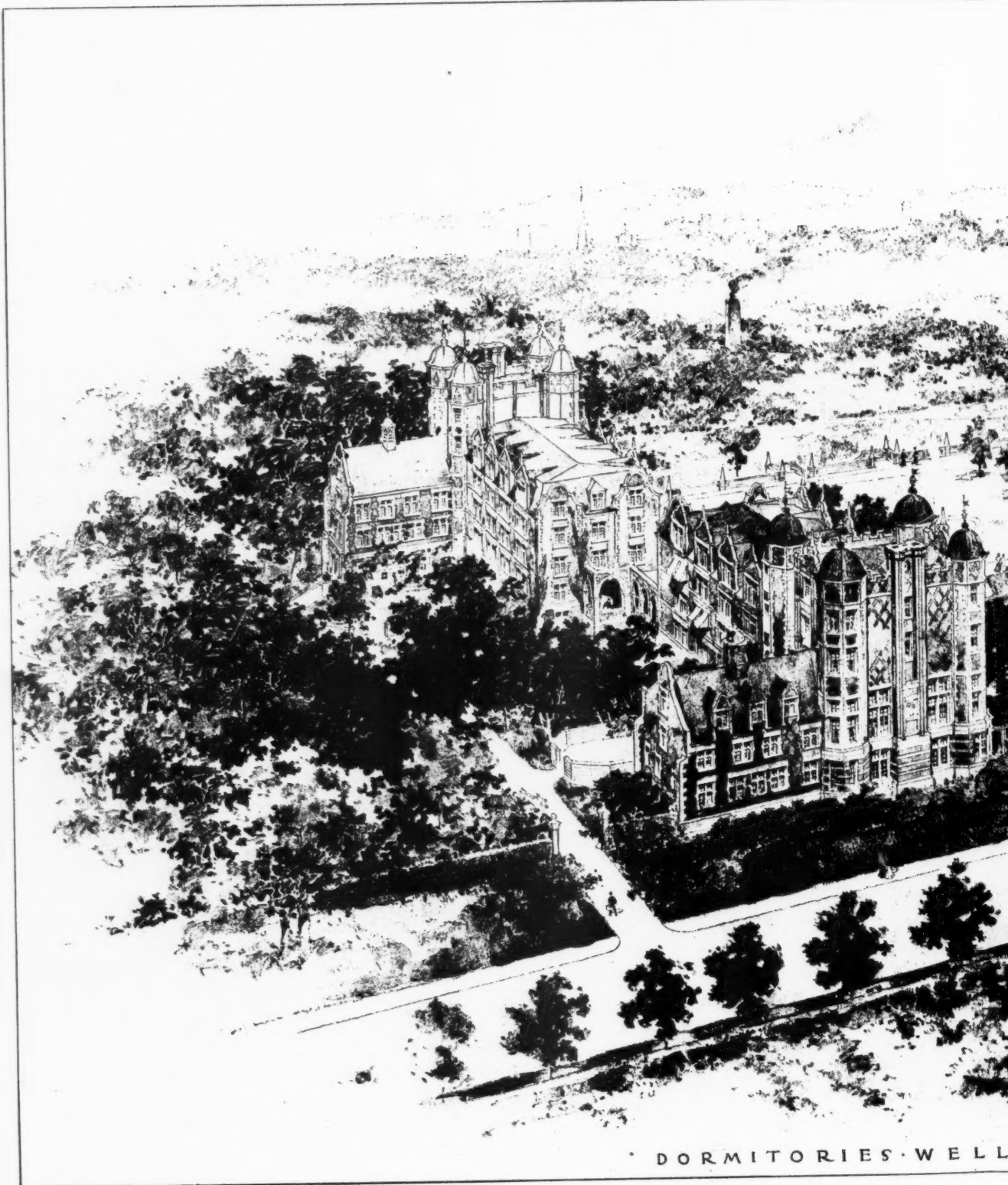
NATURAL GAS.—Mr. F. H. Oliphant's report on the "Production of Natural Gas in 1902," which the United States Geological Survey has just published as an extract from its annual volume of "Mineral Resources," is full of interesting details about the history, output, value and uses of this most satisfactory combustible. The records of early investigators and missionaries show that natural gas has been known to exist in natural springs in western New York, western Pennsylvania, central West Virginia, northeastern Kentucky and southeastern Ohio for at least 250 years. In 1775 General Washington visited a burning natural-gas spring on the northeast bank of the Great Kanawha River in West Virginia, a few miles east of the present city of Charleston. He was so impressed by the phenomenon that he pre-empted an acre of land surrounding the spring and dedicated it to the public forever. The earliest economic use of natural gas in this country was probably made in lighting the village of Fredonia, Chautauqua County, New York, in 1821. The existence and utilization of this gas at Fredonia became widely known, both in this country and abroad, and excited the liveliest interest among scientific men. So little suspected, however, was the presence of the enormous volume of gas since developed that, when it was further explored, it was pronounced "unparalleled on the face of the globe," and Humboldt is quoted as declaring it the eighth wonder of the world. Its introduction into commercial use was slow, but after its value was fully demonstrated there was a rush of capital, and a large amount of money was invested in gas territory, gas wells, and pipe lines. Then followed a period of reckless consumption and appalling waste. Many of the original fields were rapidly depleted of their high pressure. Not until it was fully realized that a large proportion of the natural supply had been consumed and dissipated by the extravagant methods in use were improved means adopted for holding back the gas in the original rock reservoirs. This was done by shutting off the wells, by cutting off all blow-off stand-pipes and escapes, by improving the joints of the pipe lines, and

by the more economical consumption of the gas. This economy came rather late, but enough of the original supply remains, stored principally in the deep and prolific sands of northern and southwestern Pennsylvania and western West Virginia, to furnish this ideal household fuel for many years to come. What may be done by deeper drilling and improved methods to prolong its use indefinitely is yet unknown.—*Journal of the Franklin Institute*.

HOW WHISTLER ROASTED MALLARME.—In the *Gaulois*, Paris, Henri de Regnier, the symbolist poet, tells a new anecdote about Whistler. It seems that the painter wished to make a pencil sketch of Stephane Mallarme from life. Before beginning the portrait, the poet and the painter entered into an animated conversation on impressionism. Whistler anathematized the school in his customary manner, while Mallarme was loud in his praise of the impressionist painters, especially of those friends of his whose pictures were hanging in the very room where the discussion took place. Whistler, still talking and laughing ironically, began to sketch the poet, who had moved close to the mantelpiece, with his back to the fire. "Don't move!" cried the painter. "You are in an admirable attitude." And he went on with his work. The position, however admirable, grew more and more uncomfortable for the model, who was standing in such close proximity to the fire. But Whistler continued chatting and drawing, and upbraiding his friend every time he betrayed signs of restlessness. At last, the heat having nearly reached scorching point, Mallarme broke down and gave vent to his feelings. "Oh! I beg your pardon," innocently replied Whistler, "I never noticed you were so close to the fire!" "This is the way he punished me for my love of impressionism," Mallarme used to say in after years. And he would add, almost tenderly, "Ah, ce Whistler, ce cher Whistler!"

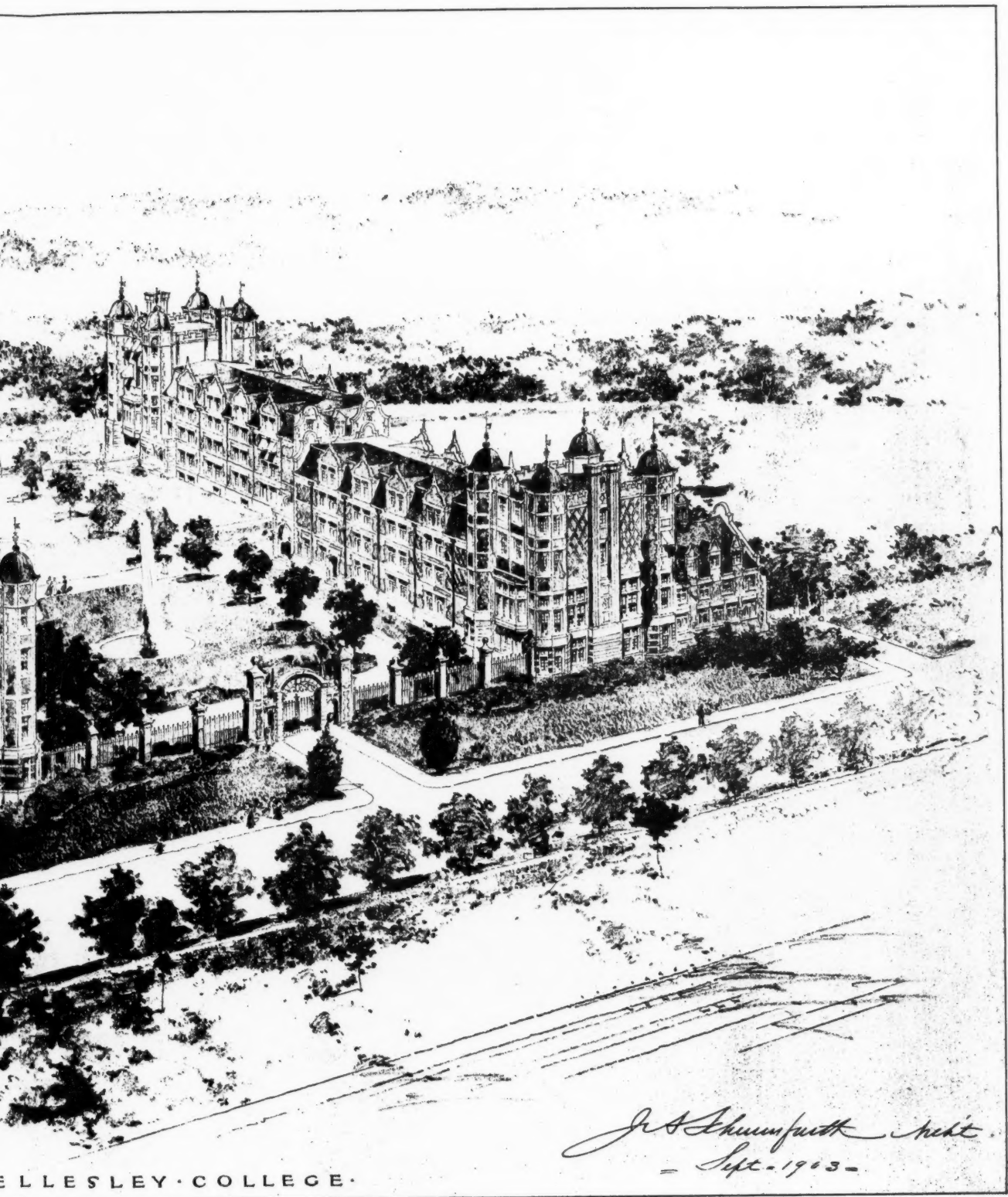
ROME AS A SEAPORT.—King Victor Emmanuel's pet ambition is to signalize his reign in the annals of Italy by converting Rome into a seaport. The project of connecting the Eternal City with the sea by means of a ship canal, is, of course, not a new one. In fact, it has been urged a number of times. But now, thanks to the energy and determination of the King, the scheme is about to be put into execution. The Tiber, which should be the natural means of navigation between the metropolis and the sea, is unfortunately useless for the purpose, as the shifting sands at its mouth, its winding course and its ever-changing shoals and pools, not merely render it unavailable for any seagoing craft, but are likewise of a nature to preclude any attempt to render it navigable for ships of large tonnage by means of dredging. The canal, however, could easily be constructed, and offers no engineering difficulties. The total cost has been estimated at \$11,000,000, the idea being to make it wide and deep enough to enable two vessels of big tonnage to pass each other. The time required for the construction would be between four and five years. The distance from Rome to the sea is considerably under fifty miles, and the canal would have the effect of draining and making sanitary a considerable portion of that Roman Campagna which is now rendered almost uninhabitable by malaria.—*Marquise de Fontenoy in N. Y. Tribune*.

CHURCH ORGANS.—The organ of Westminster in the tenth century had, it is said, four hundred pipes and twenty-six bellows, which were worked by seventy strong men. One with twenty bellows, worked by ten men, was long existing at Halberstadt. The blowers had their feet fixed upon the bellows, and holding by a horizontal pole, lifted one by one foot and pushed the following down by the other. The first keys were so hard that they only touched them with blows of the fist; and the stops (*les touches*) were five or six inches broad when the organ was reduced to an octave. They narrowed them by giving the instrument more extent. The different stops were invented by the Germans. Bernard, in 1480, invented the pedals, which he played with small cords. A few years before 1615 Timothy, an organ-maker, repairing that of Wurzburg, placed there the first known registers. They were used in common at the same era with the hydraulic organ, as appears from Augustine; but the first of bellows without water, whose epoch is certain, is that which Louis le Debonnaire ordered to be made in the church of Aix-le-Chapelle. The Germans imitated it, and John VIII had a maker from thence who probably put up the first in the Italian churches, the story of Pope Vitalianus being manifestly erroneous. The monks of Italy, of the Orders devoted to manual labor, applied themselves to the fabrication of organs; and in the tenth century a maker was sent into France, from whence they insensibly spread over all the western churches. The epigram of Julian the Apostate describes the bellows as "*missus taurino e carcere ventus*"; but that sent to Charlemagne by Constantine Curo-palates could not be hydraulic, if it was, as they say, the model of Louis's, because the monk of St. Gaul describes it as composed "*doliis ex ære conflatis foliisque taurinis per fistulas anas mire perflantibus*." The organ at St. Albans in 1450 was deemed the best in the kingdom. In parish churches they were exceedingly rare in the seventeenth century, and anciently placed on the north side, in order that the organist might not turn his back upon the altar. In the Civil War they were all put down. James I introduced them into Scotch churches. Table organs were in being at the end of the seventeenth century.—*The Architect*.



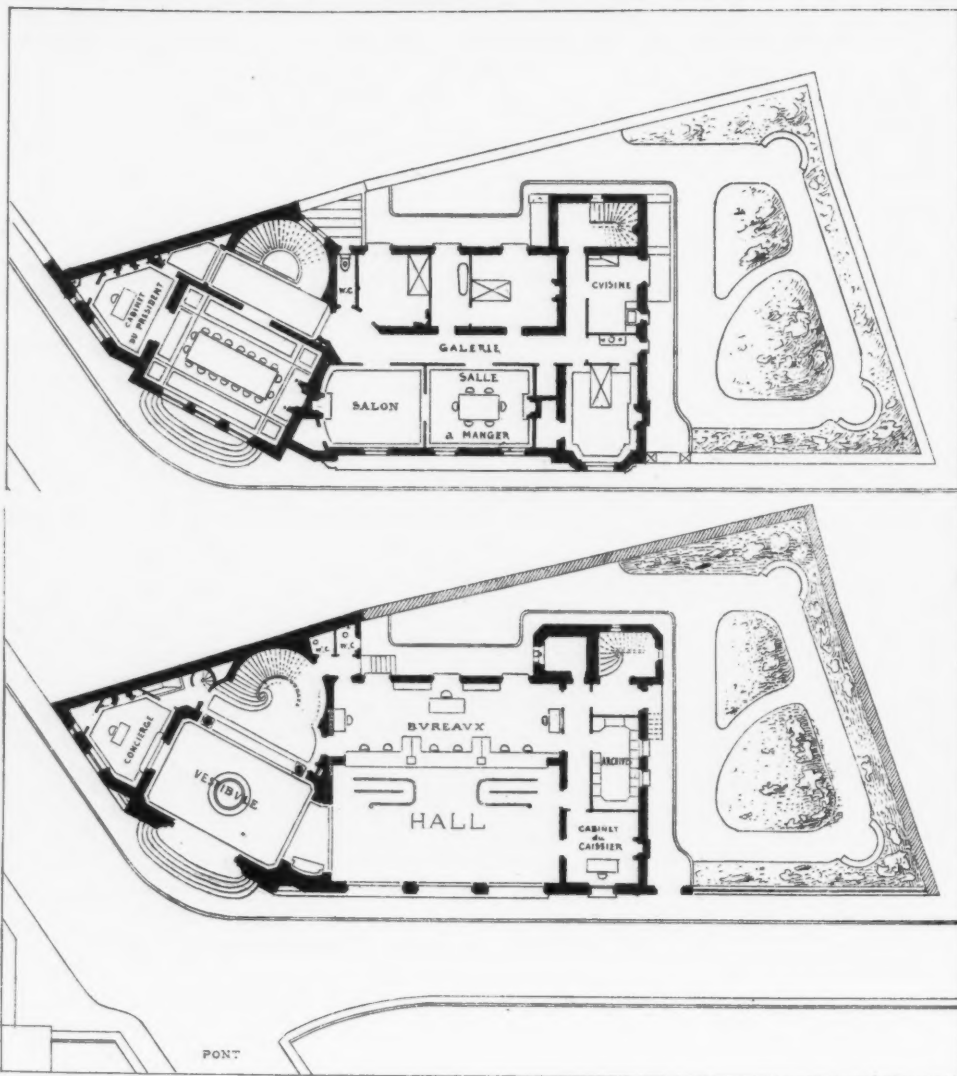
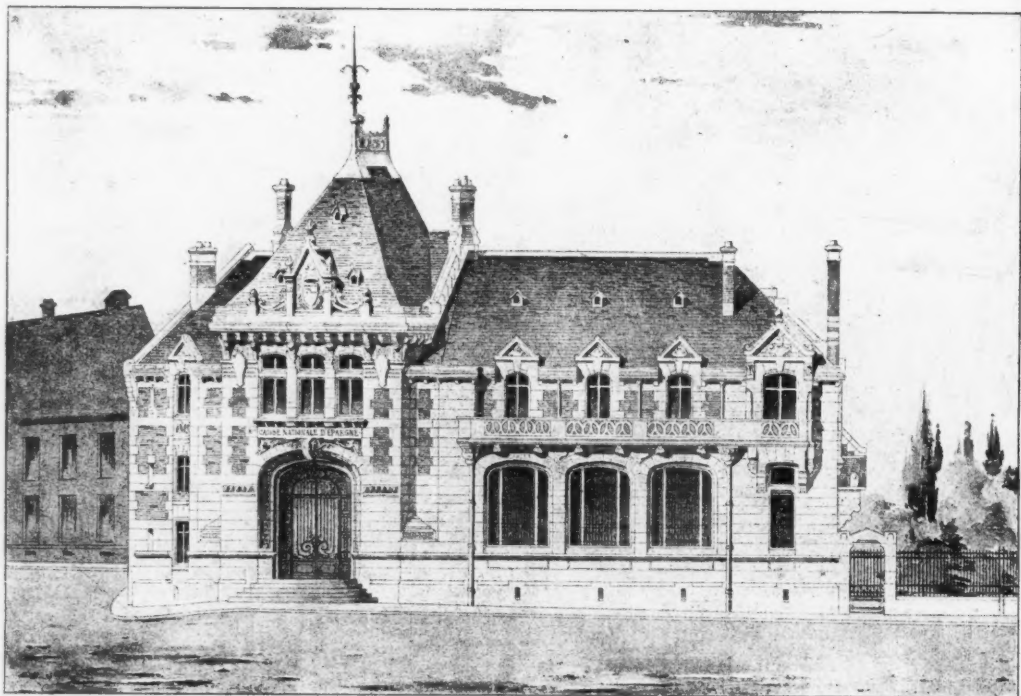
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DORMITORIES WELLS



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The American Architect
 June 25, 1904.
 No. 1487.

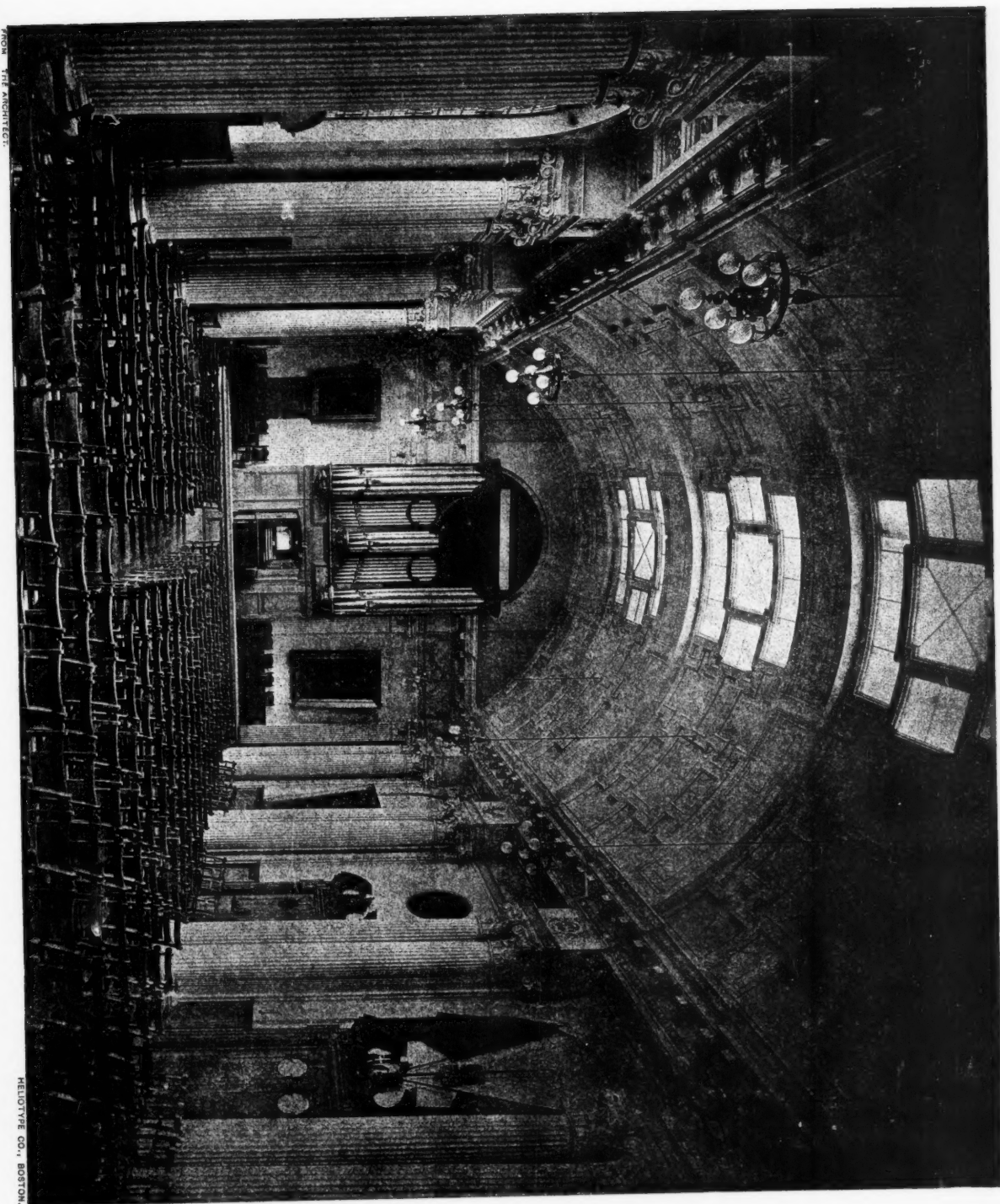


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HELIO TYPE CO., BOSTON.

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M. GAUDIBERT, ARCHITECT.

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June 25, 1904.
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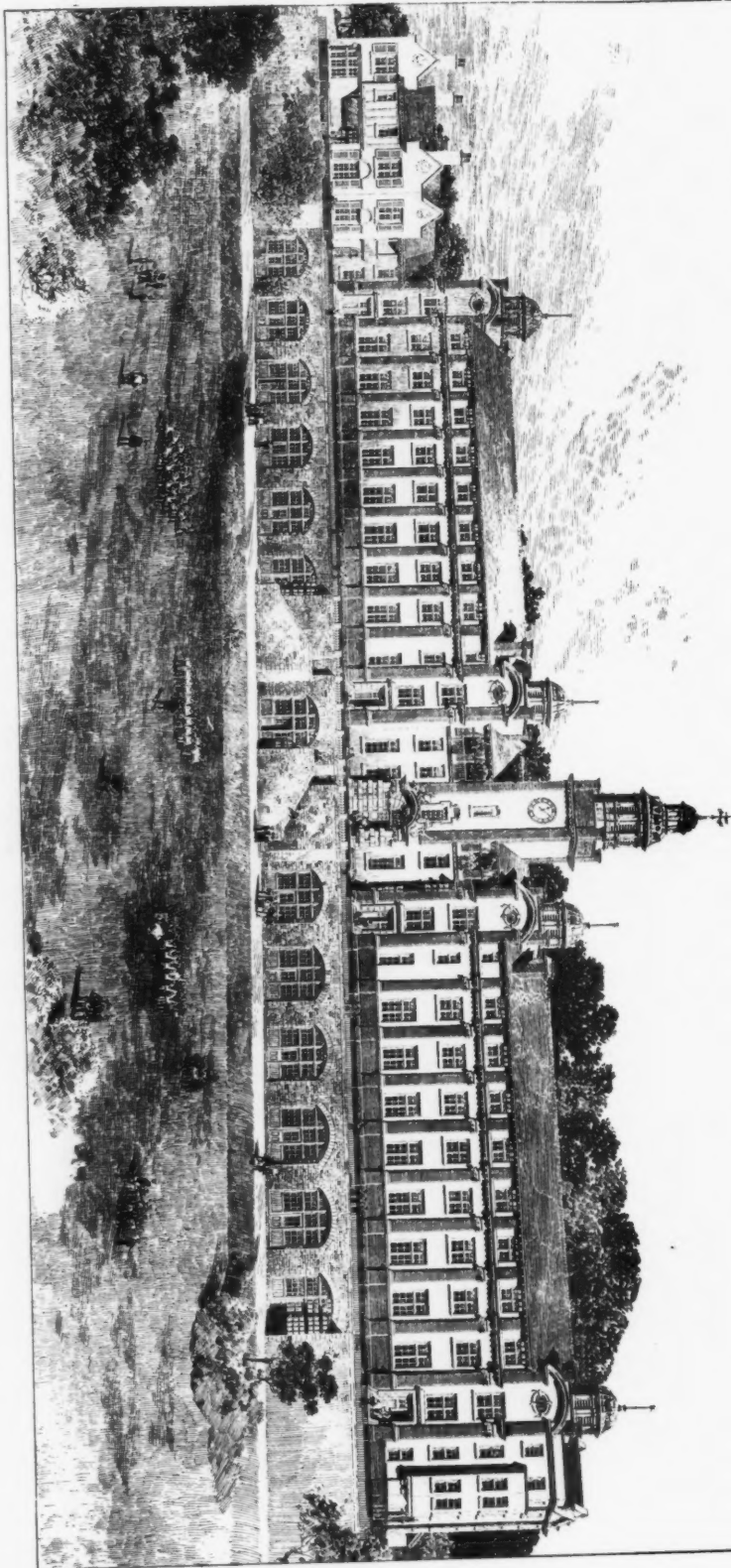
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JOHN BELCHER, ARCHITECT.

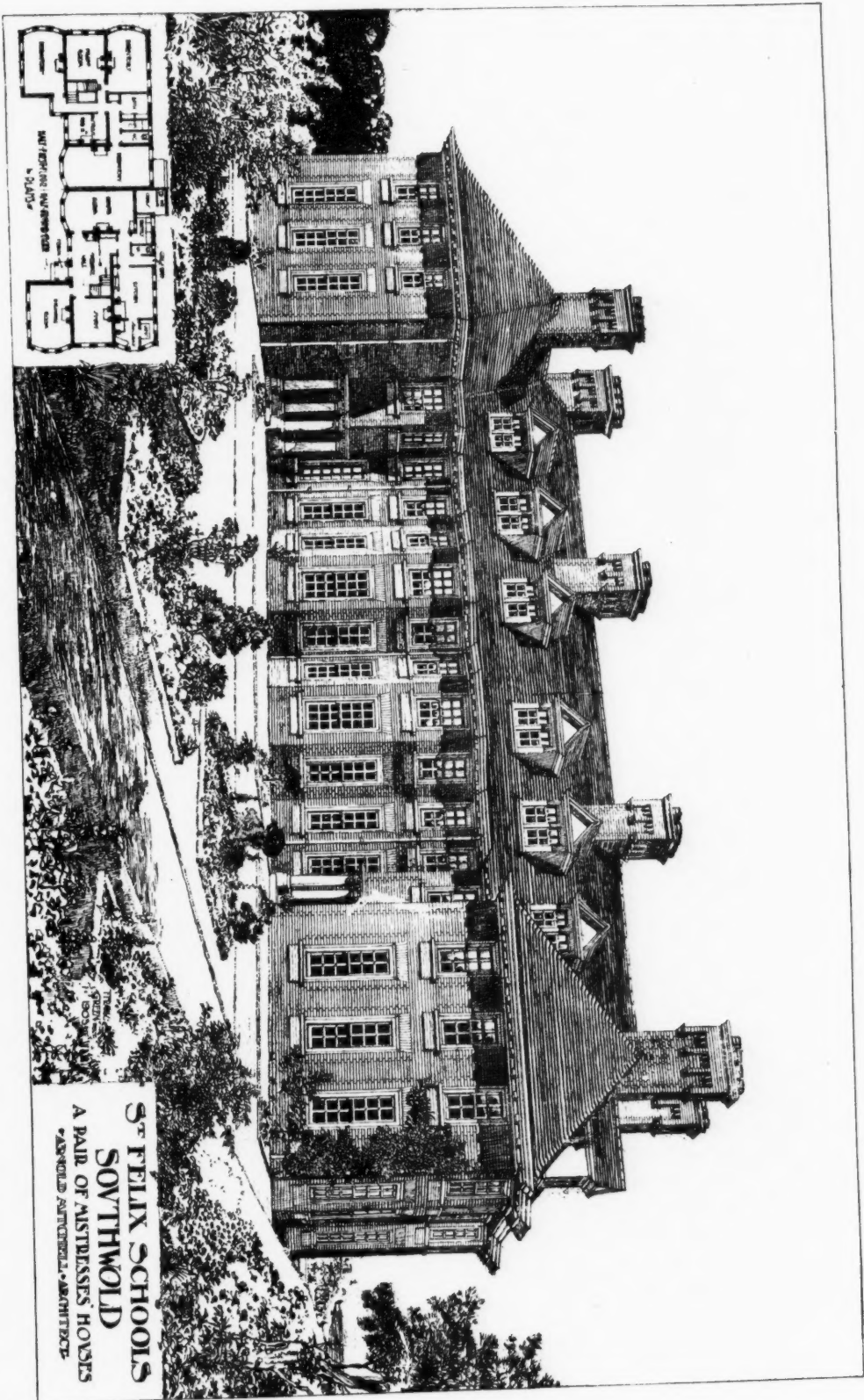
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THE FORMIDABLE NAUTICAL SCHOOL PORTSMOUTH
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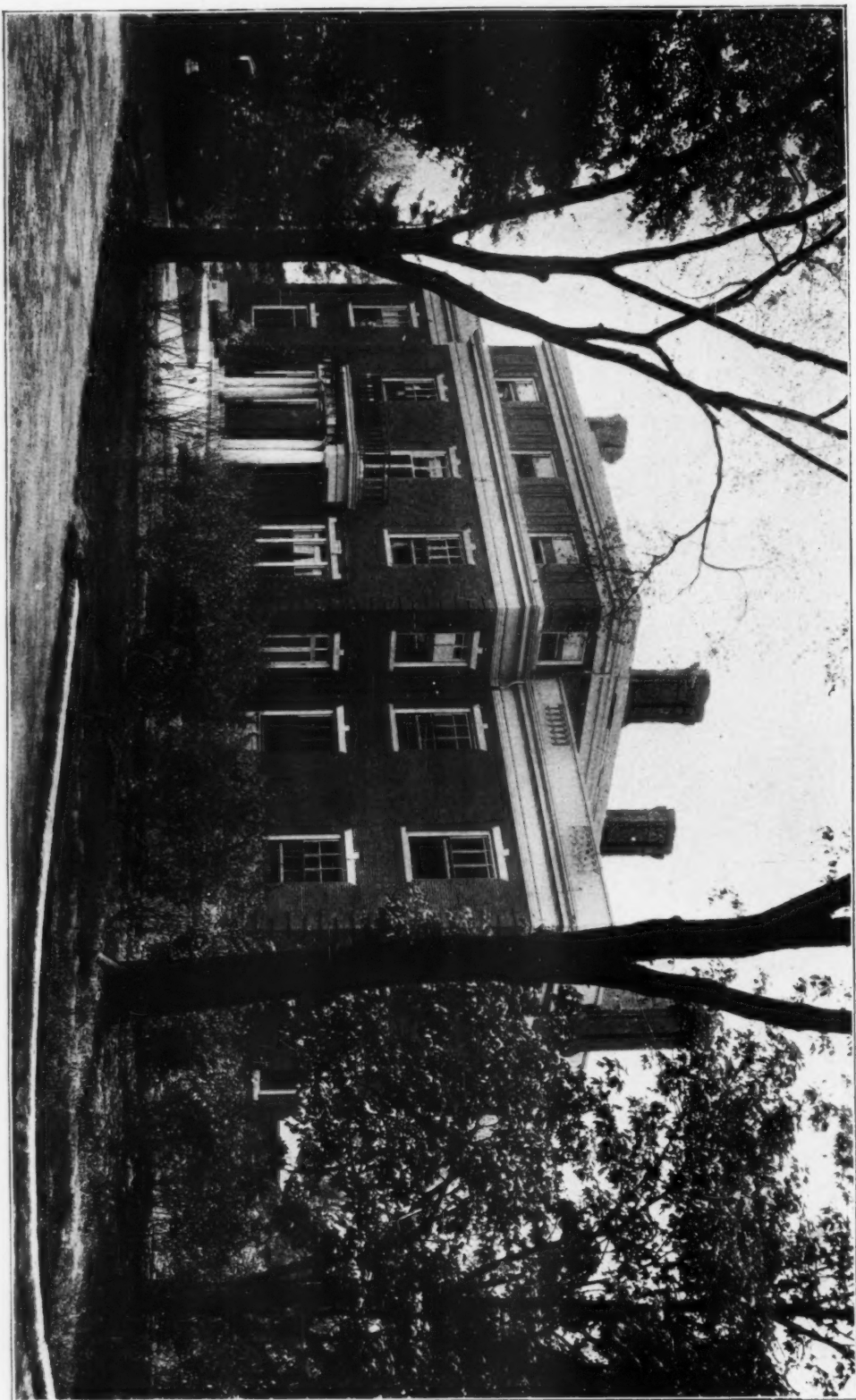


From Building News.

The American Architect
 June 25, 1904.
 No. 1487

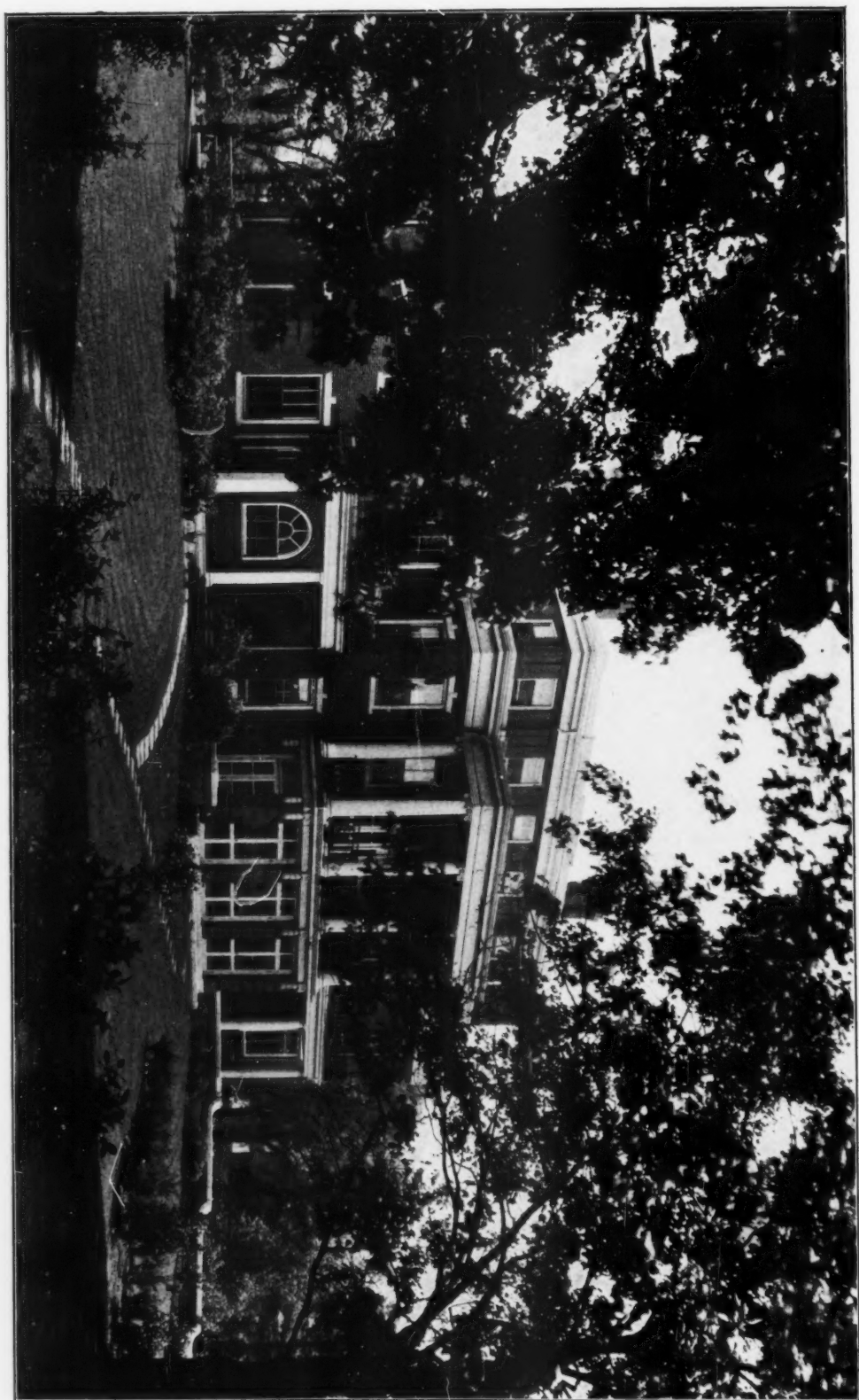


From *The Builder*.



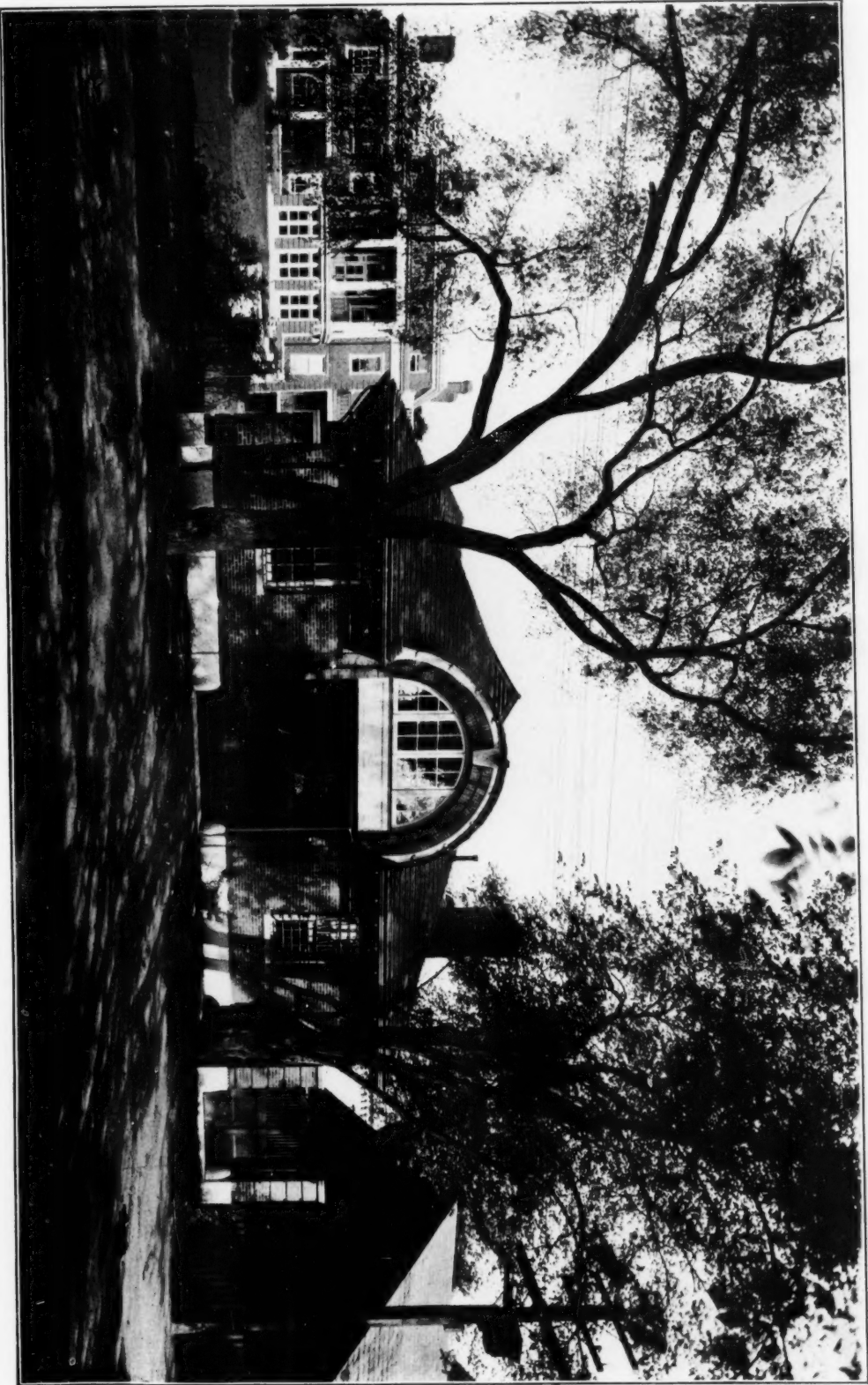
*House of Frederick P. Fish, Esq., Longwood, Mass.
Winslow & Bigelow, Architects.*

*The American Architect
June 25, 1904.
No. 1487*



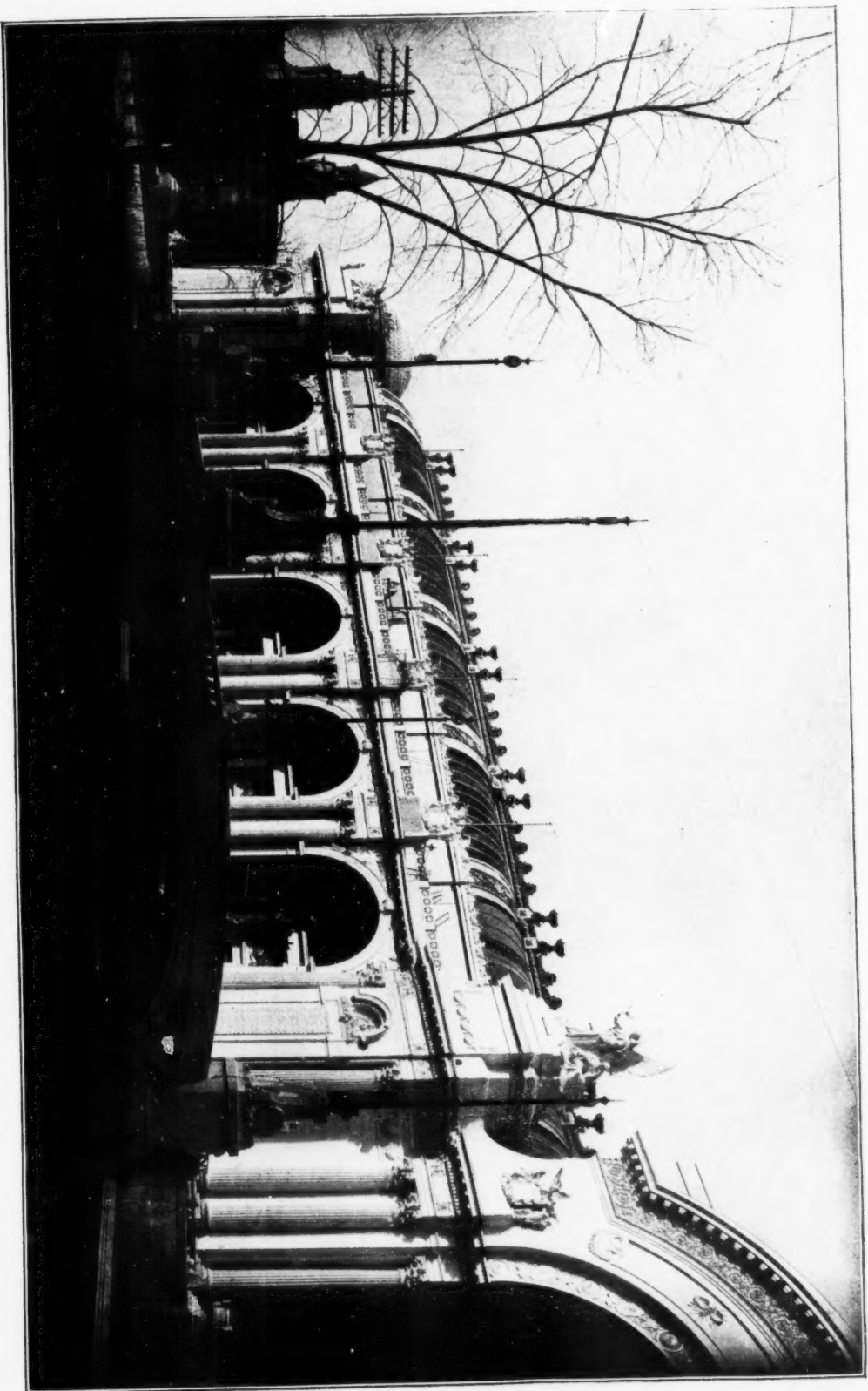
*Garden Front: House of Frederick P. Fish, Esq., Longwood, Mass.
Winslow & Bigelow, Architects.*

*The American Architect
June 25, 1904.
No. 1487*



*Stable for Frederick P. Fish, Esq., Longwood, Mass.
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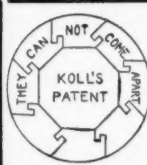
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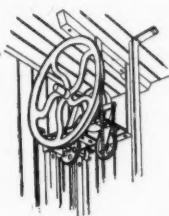


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BUILDING INTELLIGENCE.

(Reported for the American Architect and Building News.)

(Although a large portion of the building intelligence is provided by their regular correspondents, the editors greatly desire to receive voluntary information, especially from the smaller and outlying towns.)

ADVANCE RUMORS.

BALTIMORE, MD.—The contract for the erection of the large warehouse which is to occupy an entire block at Pratt, Light, Elliott and Balderston streets has been awarded to James Stewart & Co., of this city. The warehouses are to be owned by the John Hopkins Hospital. The specifications were prepared by Sperry, York & Sawyer. The structure is to be 78 feet by 239 feet. It will be five stories high and will contain nine stores on the first floor. The entire block of nine warehouses will be under one roof. The building will have a red brick front, with architectural terra cotta trimmings, granite base, concrete foundations on pilings, steel beams and girders, cast iron columns, nine fire escapes, metal window frames and sashes, heat and power elevators.

Joshua Levering, John K. Shaw and Wilton Snowden have been appointed as a building committee to select an architect and supervise the work of rebuilding the National Bank of Baltimore on its old site, at St. Paul and Baltimore Sts.

BELAIRE, MICH.—E. T. Root, architect, of Sault Ste. Marie, is preparing plans for a court house. Cost, \$30,000.

BOLIVER, N. Y.—The citizens of the Union Free School Dist. No. 1 have voted in favor of erecting a school, at a cost of about \$25,000.

BOONEVILLE, IND.—A \$65,000 court house is to be erected here. Harris & Shopbell, Archts., Evansville.

BROOKLYN, N. Y.—Boring & Tilton have prepared plans for a six-story Y. M. C. A. building, 102X115, to be built at Marcy Ave. and South Ninth St.

BROOKLYN, PA.—Thos. Reilly, of Philadelphia, has secured the contract to erect the new edifice for St. Mark's M. E. Church, at Ocean Ave. and Beverly Road, Brooklyn. The structure is to be of Holmesburg granite and Indiana limestone, and is to cost about \$85,000. W. O. Weaver & Sons, architects, Harrisburg.

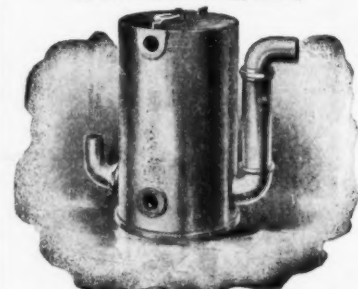
BURLINGTON, N. J.—A new parochial school is to be erected on W. Burlington St., near Washington St., by the St. Paul

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

R. C. parish, which is to replace present structure. Estimated cost, \$60,000.

CHICAGO, ILL.—The Reformed Presbyterian congregation of Woodlawn will build a new church, 50x50 feet, of pressed brick and stone, on Evans Ave., near Sixty-fourth St., at a cost of \$15,000.

The County Board has let the contract for the construction of the children's ward to be built in connection with the county hospital. It will be a three-story fireproof structure, 150x44 feet, and will cost \$75,000.

Grace Baptist congregation, the Rev. C. H. Snashall, pastor, will build a new church of 38x61 feet ground dimensions at 874 Warren Ave., at a cost of \$35,000.

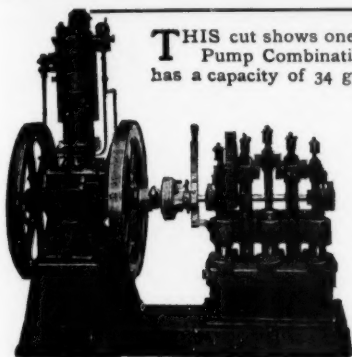
Erection of a public commercial high school on the site of the present Jones School building, at a cost of \$500,000, has been approved by the Council Committee on Schools. The plans of the Board of Education propose the erection of a twelve-story building at Harrison St. and Plymouth Court, to house not only the commercial school, but the Jones School and possibly a trades school.

Harris & McGinsie will build a three-story eighteen-flat structure at Park Ave. and Fifty-second St., to cost about \$70,000.

Henry Marsh has had plans prepared for a three-story brick and stone building with marble and hardwood finish, to be erected on Lake Ave. at an estimated cost of \$100,000.

Plans for the fine mercantile structure which W. F. Grower will erect on the site recently purchased by him on the southeast corner of Madison St. and the river have been completed by F. J. E. Braband. The building will be ten stories high, of fireproof construction, and will cover the entire site, 100x110 feet. The interior will be so arranged that it can be readily remodeled for office purposes.

Contracts have been let by Henry P.

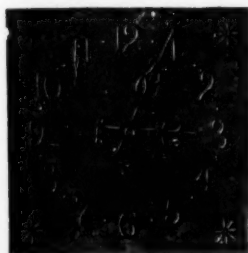


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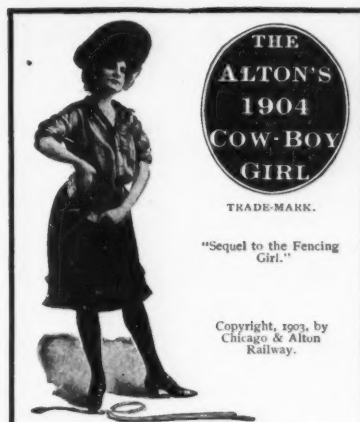
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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Harned for the furniture exposition building, which F. W. Grant will erect at 1321 Michigan Boulevard. The building will be of mill construction, seven stories high, covering 29x130 feet, and will cost \$50,000.

Contracts have been let by the Board of Education for a three-story addition to the Englewood High School. The annex will be fireproof and will be chiefly devoted to biological laboratories, besides which it will contain a library and recitation rooms. It will cost \$180,000.

CINCINNATI, O.—John Havlin, manager of the Grand Opera House, together with his associates, have had plans prepared by Harry Hake, architect, for a new fourteen-story hotel of 265 rooms, to be built at the southwest corner of Vine St. and Opera Pl., on plot 60x180 feet. To be in the modern French style of architecture.

S. S. Godley, 803 Neave Building, is preparing plans for a three-story brick and stone flat to be erected on Greenwood Ave., Avondale, for H. Goldsmith and J. J. Hooker, at a cost of about \$65,000.

COUNCIL BLUFFS, IA.—Liebbe, Nourse & Rasmussen, Des Moines, have turned over specifications for the new building for the school for the deaf to be erected at Council Bluffs to contractors in five cities, who are now making figures for bids on construction. Plans are on file in Des Moines, St. Paul, Kansas City, Omaha and Council Bluffs, but bidding is open to contractors anywhere in the country. It is probable that builders from other States will bid in one of the five cities. The school for the deaf was provided for at the recent session of the Legislature. An appropriation of \$250,000 was made for its construction and when completed it will be one of the finest of the State's buildings.

DENVER, COLO.—Plans for the erection of a sanitarium to cost \$250,000 were discussed at the session of the Foresters of America in annual convention in the Club building. The Grand Court of the Colorado jurisdiction will contribute \$3,000 towards the building fund, this being its share of the proposed assessment.

DES MOINES, IA.—The First Methodist Church Society is contemplating building a new \$100,000 edifice and have secured \$35,000 toward that purpose.

It is stated that the members of Calvary Baptist Church in E. Des Moines have decided to erect a new edifice at Ninth and Des Moines Sts., at a cost of \$20,000.

At a meeting of the State Executive Council plans for the construction of the main portion and east wing of the State Historical Building were gone over at length. The Legislature appropriated \$200,000 for this work, and it is desired to complete the building as soon as possible.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

DURHAM, N. C.—B. N. Duke, of Durham, N. C., and J. B. Duke, of New York, have given Trinity College a tract of land adjoining its present property, valued at \$50,000, and an additional \$50,000 in cash, on condition that the people of North Carolina give an additional \$50,000, to erect buildings for a woman's college thereon.

EVANSTON, ILL.—Evanston is to have a new \$100,000 library building. The site has been chosen, options on it have been obtained, and the City Council will be asked to appropriate some \$30,000 to pay for it. It is said that Andrew Carnegie has offered the money for the building. The site finally chosen is the northeast corner of Orrington Ave. and Church St. The tract has a frontage of 210 feet on Church St. and 200 on Orrington Ave.

FRANKFORT, KY.—The State Capitol Commission has selected as architect for the new building, authorized at the late legislative session, Mr. Frank Mills Andrews, of Dayton, Ohio. His selection was by the votes of four of the five members of the Commission, the Governor, Auditor, Secretary of State and Treasurer. The building will cost about \$1,500,000, for which an appropriation has been made by the last Legislature.

GREENSBURG, IND.—Report states that the I. O. O. F. lodge is preparing to erect a \$20,000 lodge building. Harry Lathrop, secretary of building committee.

KENDALLVILLE, IND.—Chas. R. Weatherhoff, Fort Wayne, has been commissioned to prepare plans for a high school to be erected in this city, at a cost of about \$25,000.

Advance Rumors. TWO. Anderson

LENOX, MASS.—The J. W. Bishop Company of Boston have a year in which to build and complete the costly dwelling to be erected at Lenox for Granville T. Winthrop of No. 40 Wall St., New York. It will be a stately structure, 200x40 feet. It will be constructed of marble, and the cost will be upwards of \$200,000. A firm of New York architects has the plans in preparation.

LYNN, MASS.—The Eastern Amusement Company has decided to lease the land for ten years and erect a \$150,000 theatre building, with a seating capacity of 1,600 persons. Plans for the new Lynn Theatre, which will be of brick and steel, are now under course of preparation, with just a few minor details to be finished. Manager Frank G. Harrison expects that within ten days from now the company will be in shape to place its building contracts and that work will begin within three weeks. Completion is expected by the middle of September at least.

McKEESPORT, PA.—The trustees of the

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Chesad Austro-Hungarian congregation have let a contract to the B. E. Jacobs Lumber Company, of West Elizabeth, for a \$50,000 synagogue, to be erected on the site of the present structure. Flats and a natatorium are to be connected with it.

MENDOTA, WIS.—A building containing the dining hall and baths is to be erected at the State Hospital. Appropriation, \$37,000.

MINNEAPOLIS, MINN.—Fremont D. Orff, architect, is preparing plans for a high and grade school building at Anoka, Minn. It will be two-story and basement, 74x86, pressed brick and stone, fan system of heating, plumbing, electric lights, hardwood floors, hard wall plaster, slate roof. Cost, \$30,000.

NEWARK, N. J.—Geo. Fred Pelham, 503 Fifth Avenue, New York City is preparing plans for a ten-story fireproof store and office building, 98x87 feet in size, to be located in Clinton Street, between Broad and Beaver Streets, in this city. The structure will be steel frame, iron and marble staircases, with a facade of brick, stone and terra-cotta. Estimated cost \$200,000. Louis Schlesinger and Morris Rachlin, both of Newark, are the owners.

Cass Gilbert, New York City, has prepared plans for a ten-story store and office building, to be built on the corner of Broad and Commerce Sts., for Messrs. Scheur & Co., and they provide for a structure which will cost about \$225,000. The building will be constructed of limestone and brick, the first two stories of stone and the remaining eight of brick, with terra cotta trimmings. It will be as nearly fireproof as modern construction can make it. It will have a frontage of forty-four feet on Broad St. and eighty-five feet on Commerce St. The firm will occupy the first floor and basement for its grocery business, while the remaining floors will be devoted to offices, with, perhaps, a lodge room on the top floor.

NEW HAVEN, CONN.—The H. Wales Lines Company of Meriden have been awarded the entire contract for the new factory and office building to be erected by the Winchester Repeating Arms Company at Winchester Ave. and Monson St. To be three stories high, with basement, a brick building of slow-burning mill construction, with granite trimmings. The cost will be about \$75,000. The plans were drawn by Architect L. W. Robinson.

James H. Hogan has been awarded the entire contract for the new St. Joseph's R. C. Church to be erected on Edwards St. The carpenter work has been sub-let to the David H. Clark Company. The plans were drawn by Architect Joseph A. Jackson, 1123 Broadway, New York, and call



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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

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Sperry & Treat have been awarded the general contract for the new Hammond metallurgical laboratory, to be erected on Mansfield St., for Yale University. Architect W. G. Beatty, of New York City, drew the plans, which call for a fireproof building of brick and steel construction, with limestone trimmings and slate roof. The front portion of the building will be 40x30 feet, two stories high, used for classrooms, etc. The rear section will be a one-story building, about 80x140 feet, equipped with milling apparatus, crushers, etc. It will be heated by steam. The cost will be in the neighborhood of \$75,000.

NEWPORT, R. I.—Announcement is made that St. Joseph's parish is to erect a church, costing in the neighborhood of \$100,000. Work is to begin soon, and the structure will be one of the most magnificent in the country.

Edward Stephen Rawson, of New York City has purchased a valuable lot of land containing 569,989 square feet and fronting on Ocean Avenue and will build a costly residence thereon.

It is reported that the St. Joseph R. C. Church has accepted plans for a \$100,000 edifice. Rev. Louis J. Deady, rector.

NEWTON, MASS.—At a meeting of the First Unitarian Society in West Newton, plans were discussed for the erection of a new church, to cost \$75,000, and to be built on the site of the present church, on Washington St. Hon. E. B. Haskell presided. Before the meeting closed \$33,000 was pledged toward the building fund, and a committee of twenty-one members of the society was appointed to secure plans.

NEW YORK, N. Y.—Plans have been filed for enlarging the Siegel Cooper store building, on Sixth Ave., from 18th to 19th St., by the addition of two new stories, covering the eastern section of the building. The cost is estimated at \$150,000. De Lemos & Cordes are the architects.

PATERSON, N. J.—The Building Committee of the Y. W. C. A. has accepted plans and specifications submitted by Welch,

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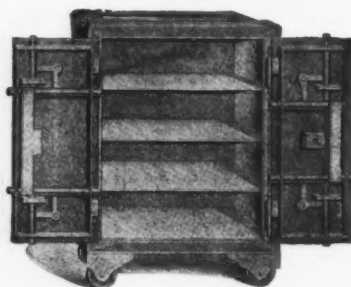
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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Smith & Provot, 11 East Forty-second St., New York City, for the building to be erected at Church and Ellsworth Sts., at a cost of \$60,000. Local press reports state that bids for erecting said building will soon be asked by the Building Committee, of which Edw. Barbour is chairman.

PHILADELPHIA, PA.—The congregation of St. Luke's M. E. Church has decided to erect a new edifice on Erie and German-town Aves., at a cost of about \$25,000.

The contract to erect the Lyric Theatre at Broad and Cherry Sts. has been awarded to Chas. Gilpin, at about \$200,000.

Reports state that the officials of the Philadelphia & Reading R. R. will soon ask bids for erecting a passenger station in Oak Lane. Wm. Hunter, Ch. Engr., Philadelphia.

Chas. Gilpin, contractor, has been granted a permit for remodeling the University Club, 1510 Walnut St., at a cost of \$30,000.

RACINE, WIS.—The plans and specifications of the proposed county asylum building have been rejected, and the architects, Chandler and Park, will prepare new plans and specifications in order that a building can be erected at a cost of not more than \$90,000. The lowest bid was \$135,000.

ROME, GA.—The Board of Trustees of Shorter College is considering the enlargement of the College, at a probable cost of \$100,000.

SEATTLE, WASH.—Heins and Lafarge, New York architects, will prepare plans for a new Catholic cathedral, to be built in this city at a cost of \$250,000 exclusive of furnishings.

VAIDEN, MISS.—The Board of Supervisors has selected plans prepared by P. H. Weathers, of Jackson, for the court-house to be erected here, at a cost of \$40,000.

COMPETITIONS.

ELKS BUILDING.

[At Paducah, Ky.]
Competition of architects are solicited for Elks Building, Paducah, Ky., same to be five stories high, 57 ft. x 104 ft. Cafe, first floor; second and third floors for hotel accommodation; fourth floor, club-rooms, parlor, dining-room, billiard hall, closet and bath room; fifth floor, lodge-room, ante-room, etc. For further particulars apply to BEN WEILLE, Chairman, Paducah, Ky. 1487

PROPOSALS.

COURTHOUSE.

[At Hamburg, Ark.]
It is stated that bids will be received by the Co. Comrs. until July 15, for erecting a 2-story brick courthouse. W. F. McCOMB, Sec'y; Frank W. Gibb, architect, Little Rock. 1488

REMODELLING.

[At Lawrenceburg, Ind.]
Bids will be received July 7 by the Bd. Co. Comrs. for remodelling and repairing courthouse. CHAS. M. BEINKAMP, Co. Auditor. 1487

SCHOOL.

[At Glens Falls, N. Y.]
Plans for the new High School have been approved by the Dep. of Public Instruction, and the Bd. of Education will now receive bids for erecting same on July 1. Probable cost, \$100,000. FRANK D. MOREHOUSE, Clerk of Board. 1487

COURTHOUSE.

[At Oklahoma, Okla. Ter.]
Bids are wanted July 5, for furnishing material and erecting a courthouse. Probable cost, \$100,000. E. S. BLACKBURN, County Clerk; Geo. Burlinghof, architect, Beatrice. 487

JAIL.

[At Aberdeen, Miss.]
Bids will be received Aug. 1 by the Co. Bd. Supvs. for erecting a jail; estimated cost \$20,000. 1488

HIGH SCHOOL.

[At East Cleveland, O.]
Bids will be received July 16 by J. F. Herrick, Clk. Bd. Educ., for furnishing and erecting a high school; probable cost \$20,000. Bids for labor and material must be submitted separately. Searles & Hirsch, Architects, 308 Electric Bldg. Cleveland. 1488

COURTHOUSE.

[At Huntington, Ind.]
Bids will be received by the Co. Comrs. until July 1, for \$200,000 courthouse bonds. 1487

BUILDING.

[At Browning, Mont.]
Bids will be received July 12 by W. A. Jones, Com. Indian Affairs, Dept. Interior, Washington, D. C., for furnishing material and constructing dormitory, employees' quarters, water and sewer system, etc., for school, at Blackfoot Agency, Browning, Mont. 1488

METALWORK.

[At Washington, D. C.]
Office National Zoological Park, Washington, D. C. Sealed proposals will be received at this office until the 6th day of July, 1904, for structural metalwork, and the furnishing and setting of the tile roof of an animal house in the National Zoological Park. Plans, specifications, forms of proposals and other information may be obtained on application to the architects, Messrs. Hornblower & Marshall, No. 1516 H St. n. w., this city. S. P. LANGLEY, Secretary, Smithsonian Institution. 1487

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PROPOSALS.

JAIL, RESIDENCE, ETC.

(At Jamestown, N. D.)
The County Auditor of Stutsman County, North Dakota, will receive at his office in the courthouse, in the city of Jamestown, N. D., separate bids for: 1. Erecting a Sheriff's residence, jail building and tunnel. 2. Erecting a boiler-house and tunnel. 3. For a steam-heating plant. 4. Plumbing for above buildings. 5. Steel and cell work for jail. All bids to be as per plans and specifications on file in the County Auditor's office and at the office of E. J. Donohue, architect, 38 Gilligan Block, St. Paul, Minn. Bids will be received until August 22, 1904. **ANDREW BLEWETT**, County Auditor, Stutsman County, N. D. 1490

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 11, 1904. Sealed proposals will be received at this office until 3 o'clock P. M. on the 13th day of July, 1904, and then opened, for the low pressure steam heating apparatus, complete in place, for the extension to the U. S. Custom-house and Post-office, at Hartford, Conn., in accordance with drawings and specification, copies of which may be had at this office or at the office of the Superintendent at Hartford, Conn., at the discretion of the Supervising Architect. **JAMES KNOX TAYLOR**, Supervising Architect. 1487

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 9, 1904. Sealed proposals will be received at this office until 3 o'clock P. M. on the 14th day of July, 1904, and then opened, for the construction (including plumbing, heating apparatus, electric wiring and conduits) of the U. S. Post-office extension at St. Joseph, Mo., in accordance with drawings and specification, copies of which may be had at this office, or at the office of the Custodian at St. Joseph, Mo., at the discretion of the Supervising Architect. **JAMES KNOX TAYLOR**, Supervising Architect. 1487

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 9, 1904. Sealed proposals will be received at this office until 3 o'clock P. M. on the 29th day of June, 1904, and then opened, for the construction of new mechanical equipment and fixtures in, and remodelling of the laboratory of the Supervising Architect in the U. S. Treasury Building, Washington, D. C., in accordance with drawings and specification, copies of which may be had at this office, at the discretion of the Supervising Architect. **JAMES KNOX TAYLOR**, Supervising Architect. 1487

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 16, 1904. Sealed proposals will be received at this office until 3 o'clock P. M., on the 7th day of July, 1904, and then opened, for furnishing and delivering the draughting materials required in accordance with the specification and schedule, copies of which may be had at this office. **JAMES KNOX TAYLOR**, Supervising Architect. 1488

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 20, 1904. Sealed proposals will be received at this office until 3 o'clock P. M. on the 26th day of July, 1904, and then opened, for the installation of a conduit and electric wiring system for the U. S. Court-house and Post-office at Salt Lake City, Utah, in accordance with the drawings and specifications, copies of which may be obtained at this office, or at the office of the Superintendent of Construction, Salt Lake City, Utah, at the discretion of the Supervising Architect. **JAMES KNOX TAYLOR**, Supervising Architect. 1488

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