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OUR readers have probably noticed, in the reports of the St. Louis Convention of the American Institute of Architects, the official statement of the unsatisfactory condition of affairs at present existing in regard to the admission of the profession to the public building work. Briefly, although the Secretary of the Treasury is now authorized to employ private architects, and to select them by competition, there is no appropriation available for paying them, and, if there were, he is expressly forbidden by statute to spend money on public buildings except in accordance with plans and specifications made by the Supervising Architect of the Treasury Department; so that an architect employed under the Tarsney law would, for the present, have to do his work for nothing. He would, it is true, have the privilege of spending the rest of his days, if he wished, in haunting the lobbies of the Capitol, in the endeavor to induce Congress to make a special statute and appropriation for his relief; but no architect who has seen the broken-down old mendicants hanging about the halls of Congress in the vain hope of having their just claims considered will wish to add himself to the brotherhood. Nevertheless, the *Evening Post* advises the profession not to refuse to work for the Government, but to accept public employment with the understanding that they will get nothing but "glory" in return. Unfortunately, an architect's business is not like that of a lawyer, or painter, or sculptor, or scientific man. His work must be carried on with the help of subordinates, whom he must pay. In the case of an important public building, he needs a considerable number of assistants, of a class which commands good salaries; and, by the time that he has settled their bills, there is not much left for him, even if he has received his own commission punctually; so that the furnishing of his services for glory alone would mean a very large outlay of money on his part, in addition to the gift of his own time and skill. We hope that there are not many architects who would dream of committing such folly as this, and it is certain that nothing could be more injurious to the profession. The public, which takes nearly a man's own estimate of the value of his services, seeing men reputed to possess professional skill plunging into such insane folly would immediately make up its mind that architects were either conscious of having no real claim to payment for their pretended services, or that they had some surreptitious means of reimbursing themselves for their ostensible generosity; and it would be difficult to say which supposition would most discredit the profession.

IN regard to the "glory" that an architect would get by working gratuitously for the public and, in addition, paying his travelling expenses, office rent and draughtsmen's salaries out of his own pocket, an instructive indication may be derived from the descriptions of the Congressional Library which are now circulating through the newspapers. According to the head-lines of these articles, the new structure is already, although it is not to be finished for more than two years, "an astonishing revelation of the capabilities of American art," and "is likely to produce a profound sensation, far and wide, and induce pilgrimages to Washington for the express purpose of seeing it." There are buildings in Washington which "produce a profound sensation" upon the beholder on account of the "astonishing revelation" that they furnish of the capabilities of American artists, or rather, of the people whom the Government accepts as artists, for displaying, at the public expense and on a vast scale, the most dreadful ignorance of the first principles of architectural art; so the panegyrist of the Congressional Library goes on to explain that the reason why pilgrims will come to Washington to worship at the new shrine is that the building "will be, by long odds, the most beautiful, as well as the largest and noblest library structure in the whole world, and the most superb public building on this continent." After being told that "this preëminent distinction" is due to the building "on account of its extraordinary beauty of architecture," the average man, who had supposed that fine art was generally produced by artists, is likely to feel a little surprise at the information that this astonishing work was produced by a brigadier-general of engineers, assisted by a colonel in the same corps. Of course, every one, including the author of the article, knows that the original plans were made by architects, one of whom, on account of a misunderstanding with an influential contractor for the work as to the propriety of permitting the latter to use a different brand of cement from that specified, was unceremoniously "railroaded" out of the way, and the commission turned over to army officers; but, in order to remove any suspicion that the original architects deserve the slightest credit for this artistic phenomenon, we are told that "General Casey has found wide scope and splendid opportunity for his skill as an engineer, and for his broad catholicity of taste." "First, he made important modifications in the plans, to conform the building more closely to library purposes, and to its style of architecture; and contracted for all the granite from one quarry, to secure uniformity." We commend the last bold stroke of genius to the particular attention of our professional readers, who will, no doubt, bow down in awe before so noble an inspiration. As to the other proceeding, of cutting down Mr. Smithmeyer's plans, every one knows that it was taken to bring the building within the limit of cost, which, after Mr. Smithmeyer's plans had been adopted, and partly carried out, was fixed by Congress for the express purpose of getting Mr. Smithmeyer out of the way; and, as the profession is not unfamiliar with politicians' tricks of this sort, it is not likely to view this part of the story with so much enthusiasm as the rest. It is, however, an essential part of the lesson which those architects who are inclined to serve the public of the United States for "glory" only should take to heart. There is no doubt that the general arrangement, the vestibule and rotunda, which form "the greatest architectural and artistic triumphs of the interior," the "grand double staircase," the "stately pavilions" at the corners, and the "burnished dome," which combine to "form an enduring dream of beauty," were designed substantially as they have been carried out, by Mr. Smithmeyer and his partner, Mr. Pelz, the latter of whom, after the elimination of his senior, was employed on weekly wages by the brigadier artist, and actually designed the building as erected; yet the description of the building does not contain the slightest mention of either, from beginning to end. This is the sort of "glory" to be obtained by working for the Government of the United States. We do not doubt that General Casey, who is a man of the most honorable feeling, will see that, in the official accounts, the real authors of the design get the credit due to them; but every victim of the political schemers of Washington will not fall into such good hands, and architects, who are asked to work for nothing for a Government which spends three million dollars a day in paying for things which it cannot persuade their hard-hearted owners to part with gratuitously, will do well to take warning by this interesting little story.

A CORRESPONDENT of the *Engineering Record* has been communicating to that journal some strange notions about concrete for foundations. In his opinion, the ordinary practice of mixing the cement and sand dry, then wetting this, mixing with the washed broken stone, putting into place, and tamping until a film of water appears on the surface, is all wrong. His objections to this procedure is, as he says, that the concrete is thus made too wet, and that the tamping, by bringing the water to the top, brings up with it the cement, "and thus diminishes the concreteness of binding properties so necessary to its strength." His advice is, therefore, to mix the sand and cement dry, and, without wetting them, to add to them the broken stone, previously washed, but allowed to drain, and then put the mass in place without tamping.

IT is difficult to believe that a person who could give such advice can ever have seen concrete-work done on an extensive scale. Every engineer and architect will agree with him as to the impropriety of "deluging" concrete with water; but his ideas of what constitutes "deluging" are most extraordinary. By actual measurement of the water used in making some thousands of yards of concrete, with one part Dyckerhoff cement to four parts clean and rather coarse sand, and six parts of broken granite of the ordinary size, it was found that, after mixing the sand and cement dry, sprinkling them with a watering-pot with twelve gallons of water to each cask of cement, turning meanwhile, and adding the six parts of broken stone, thoroughly washed with the hose, and allowed to drain, but not to dry, the resulting mixture, when well turned, was just about as wet as garden loam, in that desirable condition for agriculture in which it will not stick to the spade. This concrete, when put immediately into the trenches, in layers twelve inches thick, required half an hour of hard tamping before a film of water could be brought to the surface, and was reduced about one-sixth in volume by this tamping. The film of water brought up by the tamping was a mere appearance of wetness, which was insisted upon simply as evidence that the concrete had been compacted by the tamping to the desired extent; and it was reabsorbed in an hour or so, carrying back whatever cement it might have originally brought up with it, so that there was certainly no loss of binding property incident to the process. This particular concrete, which was to be used for underpinning a heavy building, was purposely mixed very dry, so as to allow of the utmost possible compression by tamping. For ordinary purposes, in our opinion more water might be used without disadvantage, but it is difficult to conceive of circumstances under which concrete footings could be properly made with less water. It is hardly necessary to say that the slight film of water which adheres to the surfaces of broken granite after washing would be ridiculously inadequate for moistening the quantity of dry sand and cement necessary to fill the voids in the mass; and that concrete made in the manner proposed by the *Engineering Record's* correspondent would be a mere incoherent heap of loose cement and sand, containing lumps of a very imperfect matrix, each with a bit of granite for a nucleus.

THE German laws of 1881, making compulsory the insurance of workmen against death, sickness, old age and accident, have had some curious results, according to a paper communicated to the French Academy of Moral and Political Science by M. Arthur Raffalovich. In principle, M. Raffalovich, like most other intelligent persons, condemns the compulsory insurance laws, which, as he says, were simply political bait, intended to draw away the working people from revolutionary socialism by out-bidding what socialism had to offer. As a political device, the laws failed entirely, and socialism and socialistic agitation flourished as luxuriantly as ever until, a year or so ago, it occurred to the Government to let them alone; whereupon the socialist party immediately began to break up through internal quarrels; while, as an economical measure, the laws have been anything but successful. Although the indemnities and pensions secured by the insurance policies are very small, the premiums, half of which, in many cases, must be paid by the employer, amount, in the aggregate, to millions annually. Of course, this expense, in the case of manufactures, must be added to the wages account, as a part of the cost of the goods manufactured, and the item is quite large enough to be of serious moment in the competition which the German manufacturers are obliged to encounter, even in their own markets, with goods made in countries

where such laws do not exist. No doubt, in order to sell his goods at all, the German manufacturer has to be satisfied with less profit than his foreign competitor, and this, to modern socialism, may appear an advantage; but where the less careful and thrifty manufacturers are compelled to sell at a loss, and finally to give up business and discharge their workmen, as must sometimes occur, it would be an interesting problem to ascertain whether the balance of advantages, leaving the employer out of the question, was on the workmen's side.

FROM another point, the value of the laws is even more doubtful. It was supposed, when they were devised, that the insurance companies would do so much toward pensioning the old, taking care of the sick, and making good to widows and orphans the loss of husbands and fathers, that the burden of public charity would be materially lightened; but fifteen years' experience has shown that these statutes have had no such effect, and that notwithstanding the millions taken by law from the manufacturers to pay insurance premiums, the percentage of applicants for relief in the great industrial cities, and the cost of supplying their wants, not only does not diminish, but has in many cases materially increased, since 1881, and is still increasing. In order to find an explanation of this phenomenon, inquiries were made of a large number of municipal officials having in charge the relief of the poor, and from their answers it appears that, although the insurance under the law provides assistance for a considerable number of the people who also receive public charity, it provides so little that it is necessary to ask for more. For instance, an average old-age pension is thirty-five or forty dollars a year. This will keep an old man from starving to death in Germany, but will not procure for him any comforts; and public charity is willing to add something to it. In the same way, the insurance payments for sickness are less than public charitable authorities generally think necessary; and those who receive them ask for, and obtain, additional assistance from their town or parish officers. It will be said that, even then, the money received from the insurance companies ought to save an equal amount to the municipalities, but this is not really the case, for the reason, as the officials say, that the "standard of life" has risen among the poor since the establishment of compulsory insurance. Formerly, when a workman paid his own expenses, he was rarely sick, and still more rarely sent for a doctor to attend him; but now, as they say, a workman who has his sick-insurance premiums paid for him calls in the doctor, whom he does not have to pay, at every little qualm, and puts himself on the sick-list, by way of vacation, whenever he feels himself a little out of sorts, and often when he is in perfect health, for the number of cases of pure shamming, in order to make a claim on the insurance fund for sickness, is said to be large. Moreover, as such habits are hard to get rid of, the same man, when he is out of work, and thus has no employer compelled to pay premiums for him, sends for the doctor, as before, on the smallest occasion, and, being himself unable to pay, has the bill presented to the local charitable authorities. In such ways as this, although public charity is now, owing to the vast sums paid out by the insurance companies, bestowed, as a rule, on a smaller proportion of the population of the cities than it was in 1880, the amount of municipal charity, per head of population, is materially greater, and, in proportion to the number assisted, has increased very largely. In Berlin, for example, the annual charitable expenditure per head of population, divided in proportion to the figure showing the percentage of the population assisted, was, in 1880, 4.80 marks; in 1890 it was 6.56 marks. Dantzic gives, for 1880, 3.86 marks, and for 1893, 5.03 marks, and, in general, the large cities show about the same increase. In none is there a decrease, and in some, as in Breslau, which gives for 1880, 3.49 marks, and for 1893, 18.15 marks, the increase, owing, undoubtedly, to special local circumstances, is very large.

THE competition for the Minnesota State Capitol has been decided in favor of Mr. Cass Gilbert, of St. Paul; Mr. George R. Mann, of St. Louis being placed second; Messrs. E. P. Bassford, of St. Paul, and Traphagen & Fitzpatrick, of Duluth, third; Mr. Clarence H. Johnston, of St. Paul, fourth, and Mr. Harry W. Jones, of Minneapolis, fifth. Mr. E. M. Wheelwright, of Boston, was the expert adviser of the Commission, and his recommendations seem to have been, in the main, followed.

ART IN THE MODERN CHURCH.¹—V.
THE DANGERS OF THE PICTURESQUE.



Fig. 15.

THE predominant note in current American church architecture is the picturesque. It is a quality that is more and more coming to dominate our architecture as a whole, and which has long since been the distinguishing characteristic of the American country house. Few architectural qualities are so delightful as this, and its development is a fact that all lovers of the art must regard with the utmost satisfaction. Yet as the leading quality in our church architecture it is to be most heartily condemned. Picturesqueness does not give a Christian character to a church any more than it endows a dwelling with an odor of holiness. A Puritan would, perhaps, argue that it was essentially carnal, since it distracted our thoughts by mere beauty of form, and was physical rather than intellectual. In reality we run into greater danger. The picturesque now so completely absorbs the attention of our architects, that every other quality is let go. Obtain a picturesque design where the site permits it, the architect exclaims, and you need not worry about the success of your design!

The picturesque is not a quality to be despised in any building, religious or secular. It is delightful and fascinating, and produces that sensation with which the eye is most readily charmed. But it is not all of architecture, nor should we fasten all our architectural faith to it. That is the error of its use in the church. If a country church, for example, has a picturesque air, if it sets well with the surroundings and is admirably suited to the landscape, it is generally supposed that the very greatest success in church design has been obtained. Yet the picturesque is the most secular of qualities. If it were sacred, how could it appear to the overwhelming advantage it exhibits in the dwelling, to name but a single secular instance? If it were holy by nature, should we not insist on it throughout our



Fig. 16.

worship? Should we not deem that church the "truest" which supports the most picturesque service? Should not our ministers and priests be chosen for their picturesque appearance or their pictur-

¹ Although the author of this paper has drawn the greater part of his illustrations from designs that have appeared in this journal, he and we are under obligations for the remainder to the *Inland Architect*, the *Northwestern Architect* and to *Architecture and Building*. Continued from No. 1035, page 45.

esque sermons? The absurdity of the thing is so apparent that it requires no demonstration; but it is not useless to place it in a logically absurd light in order to show the folly of remaining satisfied with it, and with it alone, as the one great quality of our church buildings.

The danger of the picturesque in our current architecture is that, having obtained it, we will remain content with that single quality,



Fig. 17.

without insisting that the religious element shall be the chief characteristic of our churches. The two elements are not in the least oppositive, and each, as a matter of fact, helps the other; but if it is necessary that one be chosen and the other left, if it be necessary, even, that they be separated and one rejected and the other accepted, there can be no doubt, in the mind of the Christian builder, which he should choose.

Every traveller in Europe knows how admirably the picturesque and the religious qualities were combined in the mediæval churches; combined, indeed, until the one cannot be separated from the other, and the harmony of the design results from the harmony of the combination. Of the multitude of examples that might be chosen I will name but one, the Cathedral of Autun. This charming church is delightfully situated on one side of a city that is backed by a succession of green hills. Not large enough for mountains, this background affords the best possible setting for the roofs and towers of the cathedral. Seen from across the city the view is charmingly picturesque, yet one never, for a moment, questions the inherent Christianity of the architecture.

The point is, not that the architect of the church should avoid the picturesque, but that he should not aim at it exclusively. At present we might broadly say that the aim of our architects was to produce picturesque churches. Yet there is nothing religious in this, and unless the religious character be maintained in the design it does not represent a religious structure at all. Hence it is that the use of the picturesque, the fondness for it, its popularity, even its own



Fig. 18.

inherent merits, are sources of positive danger to the modern architect.

It is not necessary to attempt a classification of the various sorts, kinds, styles, fashions and modes of the picturesque that appear in current church architecture. But a survey of recent buildings, if conducted on a broad scale, will show many churches of a varied type in which the architect has evidently been trying to obtain a

picturesque effect, yet only got unpleasant results. The study of such designs is not a pleasure, for it testifies at once to the failure of the architect to rightly comprehend his problem, on the one hand,



Fig. 19.

and on the other, to the inability of those choosing the design to properly estimate its merit. Some idea of what is meant by this kind of unfortunate picturesqueness, may be gathered from Figure 15,



Fig. 20.

which is a design for a church, chapel, parochial residence and school. Of the main portion it may be said that the author has depended on the mere use of forms and the shape of his building to

make it look like a church. And if nothing more than this were needed in a church design — though a process to be most heartily condemned — it would not have been ineffective had it not been burdened with a tower on the corner, doubtless intended as picturesque, but really depriving the building of dignity. This tower absorbs the attention to the exclusion of everything else. It is not an easy, sober, stately tower, but it is covered with pinnacles, and is crowned by an octagon with an open gallery and a cone, which has two series of dormers. And below, for no manner of purpose so far as the drawing shows, another tower has been tacked onto the corner,



Fig. 21.

beginning above the ground, and stopping below the crown, as though, having discovered it was rootless, and therefore without strength or utility, it came to an untimely end in a parapet that certainly shelters neither cannon nor men-at-arms.

Figure 16 is a most extraordinary design. It does not seem possible that a more varied or more variegated design exists in the world. It is remarkable not only for its variety, but because its authors aimed at no other end. Given a lot of tolerable size, and the relatively simple problem of erecting a church and Sunday-school building upon it, with minor offices, and having the further advantage of building the church on the main floor, the other portions occupying the adjoining land, they set to work to cut up their design into almost as many pieces as they could, then joined these various parts together, and put it into permanent form.

It is difficult to decide at what point to begin to study this design, so many are its parts, and so frequent and diffuse its points of departure. The octagon, which rises from the truncated end, is over the main entrance, the greater tower serving to divide the two main divisions of the whole. There is a very great deal of material in this latter tower. On each corner is a small diagonally-placed buttress. The one on the right is stopped below the other, and is surmounted by a column, which, presently spreading out, carries an octagonal turret, that, in due time, becomes circular, and then a cone, at which point further variety in shape being out of the question, it comes to an end in what seems to be a lightning-rod. The variety in this piece is the key-note to the whole design. Everywhere there is change, ceaseless and unending. The gable next the tower, which has a rectangular base, apparently added as an afterthought because the mammoth window below it was too large, is



Fig. 22.

enclosed within turrets of different designs. The result, as a whole, is a collection of parts. No one portion is continued for a sufficient space to acquire dignity; the roofing line is cut up into as many

parts as possible; and this unrest and variety, this imaginary picturesqueness in change of shape, seems to have been the underlying idea of its creators.

This may be proper enough in some structures—we need not open the question—but that it is entirely unsuited to a church this example must make clear. The standpoint of the designers was totally wrong. A collection of parts, which are parts, and nothing more, will not make a churchly looking edifice, even when greater care is exercised in making the collection than in this instance. There are other errors and misfortunes in this design, but for our present purposes we need only look at it as a peculiarly unhappy effort to design a church on a radically wrong basis.



Fig. 23.

Figure 17 is another example that may be classed with the foregoing. Here is a cutting-up of wall-space, a varying of roofs, with an extinguisher-sort of a tower on the corner that does its best to seem out of place. There is absolutely no rest here, and one almost looks to see the umbrella with which the tower is capped, spread open and take the upper part off to the skies. It is a striking instance of the misconception of the true nature of church design that is so frequently seen in this country. In attempting to obtain a picturesque effect through the employment of a great variety of parts the architect has wholly overlooked the possibility of a truly religious building. There is nothing here to give Christian character, though we know it to be a church, because it can be nothing else, and because, alas! we have seen many other buildings we know to be churches, of a similar style and form.

As an example of a relatively simple edifice illustrating the same principle, Figure 18 may be studied. The portion to the right is devoted to social uses, and this strongly resembles a dwelling, though, being an integral part of the church building, so close a resemblance is not to be commended, especially as it is not used as a residence. For the rest, there was sufficient opportunity for simplicity, but it has been discarded for towers and turrets, which, while not important enough in themselves to justify their expense, have the unfortunate effect of destroying all harmony. The problem here was relatively simple, and apparently only a limited amount of money was to be expended; yet even in its simple and plain forms enough distraction has been introduced to produce a result far from satisfactory.

And so with the church shown in Figure 19. It is a more pretentious design than the one which immediately precedes it, but not one of these expensive towers, on which so much dependence has been



Fig. 24.

placed, gives to the structure that Christian character which would lift it above secular edifices as peculiarly sacred. The architect sought to make a varied outline, to introduce some new and original features, and to depart, as far as he could, from the beaten track, yet all his effort has been wasted. A search after the picturesque was

the snare that led him astray from the lines of religious architecture, and his work, like the other examples we have seen, shows how dangerous the picturesque may be in the hands of the church designer.

The drawing of a church in Figure 20 represents a more pretentious edifice than any of the foregoing examples. The placing of an apse upon the main front has, of course, given occasion for a feature



Fig. 25.

in that situation that does not ordinarily form part of the main façade. But this provides no excuse for the many little parts that form the front to the left of the apse, introducing almost as much variety as could well be put into this space, quite destroying the harmonious treatment that might have resulted had the broad space here been treated in a quiet and orderly manner. It was a mistaken notion of the value and function of the picturesque in church design which spoiled this work, and it will spoil every church in which it is made the dominating feature.

A concluding example of the phase of the picturesque we are examining at present may be seen in Figure 21. Here, in a single front, we have practically five towers, beginning with a chimney at the extreme right. For a single church, and a semi-suburban church, this is doing pretty well. But the tale is not all told; around the corner of the main tower is a smaller applied circular tower, that raises the total number on the two façades to six. When one recalls that the Cathedral of Chartres has eight towers, though only two of them are completed, and that the Cathedral of Amiens, the largest Gothic cathedral in France, has but three, one of which is a slender *fleche* on the roof, it is apparent how completely the author of this design, in his search for the picturesque, has failed to recognize the just limits to variety. His two fronts have also five different gables, of various shapes and sizes, but his imagination gave out with completing his towers, since the six show but three different sorts. It would seem impossible for the picturesque to be pushed to further extremes of absurdity.

All the examples of churches we have seen in this chapter illustrate an attempt to obtain a picturesque effect through sheer variety



Fig. 26.

of form. It must be very clear that their authors were not happy in their efforts, chiefly because they took this one element and made a secondary character the chief. It is possible this result would have happened in any case, whether the building was a church or not; but certainly these designs show that such a system of wild unreasoning

variety is wholly out of place in the sacred structure of the Christian church.

A second class of churches, and a large one, is formed of those which are agreeably picturesque, yet which must be objected to for that very reason. In such buildings an agreeable aspect is made the chief quality, and their authors become so absorbed in trying to obtain this end that they think of nothing else. A commendable quality, and a desirable one, in the right place, it becomes almost offensive in a Christian building when it is substituted for the Christian element. What would be thought of a Christian minister who constantly recited the literary compositions of pagan authors in his pulpit, and never so much as once opened his mouth on the subject of Christ and His Gospel? The form of such a discourse might be more beautiful than that which he would compose himself, it might be couched in better language, it might give vent to a nobler æsthetic feeling than anything he might say of his own volition. But it would not be Christian, nor would such a minister be thought to be fulfilling the proper function of his high and holy office. Yet is not this the very thing that happens when the architects give us picturesque churches instead of Christian ones? Surely, it is putting artistic ideas into an un-Christian language, which is precisely what the preacher would be doing if he were to recite the tragedies of Euripides. And what is un-Christian in the one instance is un-Christian in the other, and unless we have a Christian language that can be translated into the forms of art as well as into the spoken speech of man, we are certainly deficient in a powerful adjunct for the spread of the Gospel; aye, deficient and ignorant of it.

It is important to remember this, for the beauty of the picturesque is as fascinating and delightful to the eye in a church as in a dwelling or a structure of pleasure. We are too much accustomed to consider that if the forms of a building are agreeable, if their combination is happy, if the result is pleasing, it must be satisfactory. And if that were the end of architecture there would be nothing more to be said. Church architecture, however, as has repeatedly been said in these chapters, is something more and something different. It does not stand on the same level as the architecture of our houses, our theatres, our hotels, our office buildings. It has a duty towards God and man which no other class of building has. We must give it a quality that will mark it off from other forms of architecture, and distinguish it from that which we would use in structures exclusively secular. This is not a distorted position, nor a strange one, though we have forgotten its truth so long that we will forget it altogether unless we keep it constantly before us.

So the eyes of the Christian should not be dazzled with picturesque churches, nor should ministers and religious organizations when they are building temples for God's worship be deceived by pleasant forms, nor by cunning contrivances. These things are not to be wholly despised and ignored in the church building, but when they dominate it and absorb it they become like to some noxious weed, that, entering the garden little by little, ends in overrunning it, until the flowers and fruits are choked and destroyed in its malicious embrace. And this is what the picturesque is doing for our church architecture, if, indeed, it has not already accomplished it.

Figures 22, 23 and 24 show three churches from the same hands, in which a feeling for the picturesque is the dominant one. The designs are not of equal merit, nor are they devoid of a certain eccentricity, but if one were to ask, What was the end sought by their designers? there could be no delay in the reply, To obtain a picturesque design. The complicated plan, for buildings of such small size, the many parts and the strangeness of some of the shapes, all point to an effort after the picturesque, as the end most desired. The architect's aim was to obtain pretty little churches; they did not think of making Christian buildings.

In Figure 25, a sketch for a proposed country church, we have another example of the same tendency. The side walls are unusually low; the roof, by contrast, unusually high, and the ponderous tower is almost eccentric in its dimensions, for while it reaches in to almost half the width of the church roof, it only carries a short spire much smaller than itself. The design is simple, yet in every part its authors use the most exaggerated forms; it is as though they spoke constantly in the superlative degree when an ordinary form of speech would have sufficed. And they never would have done so had they approached the subject in a truly Christian spirit; but seeking the picturesque they fell into grievous error, even with so simple a problem as here proposed.

Figure 26 is a design that might be bracketed with the previous one. We have here an excellent opportunity badly used. For, manifestly, the author of this design had no other thought in his head than the securing of a pretty piece of design, which might, perhaps, harmonize with the surroundings, and which, as a bit of design, might have some grace. That the building is odd and straightforward is not to be denied, but its author wanted only a striking little building, not a structure that would tell of Christian manliness and courage, of the battle between right and wrong, of faith and hope.

BARR FERREE.

(To be continued.)

A CHICAGO SEWER. — One of the largest sewers in the world is to be built in the Eighty-third Street district in Chicago. It will be 16½ miles long, 12 feet in diameter, and will cost \$1,295,000. — *N. Y. Evening Post.*



THE ART INSTITUTE. — ARCHITECTURAL DRAWINGS BY PUBLIC SCHOOL CHILDREN. — THE DECORATION OF THE PUBLIC LIBRARY. — MOVING A CHURCH. — REMINDERS OF THE WORLD'S FAIR. — BEAUTIFYING (?) A CITY SQUARE.

OUR summer has been such a steadily warm one, and the autumn so exceptionally fine, that it is hard to realize that winter with its new plans for work is close upon us. The starting-up of the schools is one very visible proof of the season's advance.

The Art Institute begins its school year under the most favorable circumstances. About three hundred pupils registered on the opening-day, and the secretary, Mr. Carpenter, felt that without doubt there would be an increase of from thirty to fifty per cent in the attendance over last year, at which time the school was deemed one of the largest in the country. So far this autumn the receipts have been twice as large as they were last fall. Many of the old students have returned, which, of course, is of great advantage to the school, as the work done is consequently of a higher grade. The staff of teachers is about the same as heretofore, though additional help has been obtained for the lower grades to help the preparatory classes through the difficulties of the first years. Additional facilities have been added for the night work, especially in architectural classes and the classes in mechanical drawing and design. The bread-winners have, consequently, a better chance to pursue their studies at the Institute than ever before.

An interesting though far from beautiful exhibit in the galleries during September has been the work of the public school children. It was attractive in the same way that Dr. Johnson used to find a woman-preacher attractive; he found her like a dog walking on its hind legs, a wonder, not that she did it well, but that she did it at all. The little free-hand work and flat drawings of the school is an old story, but that children should be taught anything of the art of architecture seems to one who for a good many years has had little to do with a grammar school, like an innovation. The different styles of architecture are illustrated by drawings by the children, a written description accompanying each sheet. The drawings are of the crudest and the descriptions, though always embodying the main truths, curious as specimens of abrupt composition. But this is a step in the right direction and will, doubtless, implant in many a mind the a b c of architecture which will not be forgotten through life and will do away with such gross ignorance of the subject as is often found in the adult of to-day.

Added to these architectural descriptions were many little architectural sketches, some of them not at all bad, considering the age of the draughtsmen. The subjects were not tumbled-down mills and impossible dead trees, but real live every-day houses and must lead to observation, and later to appreciation of the buildings which are on every side. The idea of placing the work in the Institute was to attract the parents and children to the galleries and generally to stimulate the art feeling throughout the city. It is the first time here such an exhibition was ever placed in a similar institution, but the crowds of children with parents and friends who have visited the collection, show that the hope that this would attract them to the place was not a vain one. Once within the charmed precincts, subsequent visits follow as a matter of course. The Saturday morning classes, which are the ones given up to the children, are largely attended and filled with very enthusiastic students.

In the educational exhibit of the World's Fair, as many will remember, there was a most interesting display of drawings done by the little Japs in the higher primary schools. It was all brush work, India ink on India paper, and, when the age of the children was taken into consideration, was very remarkable for its character, its freedom and generally artistic handling. Compared with it, the work of our children is simply ridiculous, and makes one feel that our little almond-eyed neighbors, who are said to waste no time in crying, must have used this time thus gained to good advantage and were far ahead in intelligence and skill of their flaxen-haired contemporaries on this side of the water.

A most interesting exhibition of designs is one only a few steps from the Art Institute in one of the unfinished rooms of the, as yet, unfinished Public Library. The Library Board has decided that the interior of the Library should be a thing of beauty, and consequently schemes of interior decoration were called for on a basis of design given by the architect. From these the Board could make its selections. As the materials to be used were to be of a costly nature, specimens were called for to accompany the designs and models. Only two or three firms complied with this demand fully, and consequently, as was perfectly right and proper, such firms were the only ones which actually entered into the competition. The Tiffany Company made the most elaborate display and have been awarded the contract for all the important decoration of the building.

The decoration of the reading-room is a copy of the fine hall in

the Ducal Palace of Venice. As is usual with the Tiffany decoration, the barbaric splendor of the Byzantine style is the feature most to be noticed, while an attempt is made to keep the designs of an Italian Renaissance character in keeping with the exterior of the building. Semi-precious stones, mother-of-pearl, verd antique and Connemara marbles are only part of the valuable materials used in the models which in themselves are valued at over two thousand dollars.

The Washington-Street entrance, which is the main entrance of the building, is to be rich in marbles and glass mosaic-work. The walls, the grand stairway, the balustrades and the panels will all be of white marble, inlaid with the Favrite glass, mother-of-pearl and semi-precious stones. The ceiling is panelled in alternate hexagons of plain white marble and white marble inlaid with delicate tracery of green and gold. The floor is of Roman mosaic, of various rare marbles, Sienna, Numidian and the royal green marbles. In the panel of the balustrades, the light-green marble of Connemara appears in combination with a border of opalescent green and pearl mosaics.

Opening out of the stairway of the second story is the delivery-room, which is covered with a spreading dome of yellowish Favrite glass. This gives the color-scheme for the room, whose light warm tints harmonize well with the white marble of the hall and stairways.

The next room is the reference-room, naturally a large apartment, which has for its color-scheme a curious combination of sap green, Pompeian red and gold. The dado, which is about fifteen feet high, is of a dark greenish blue, while the walls above it are kept much lighter, the three principal colors being combined are stippled on them till they reach the frieze. Panels, bearing names of authors, divide the frieze, while the ceiling is broken into panels where the light reds and blues are combined in high relief on a gold background. The most striking and bizarre decoration is in the reading-room, where the most daring combination of colors is used. The floor is of marble mosaic; then comes the base-board of verd antique, while upon this rests a high wainscoting of Sienna marble. From this wainscoting between the windows, pilasters rise to the ceiling. They are decorated in relief in iridescent greens and blues. The same colors prevail in the ceiling, which is decorated with panels in high relief.

The good taste of so completely covering all space with the work of the decorator seems, perhaps, questionable. In the hall and stairways the fine combination of good design and material makes the scheme especially successful, but in some of the other rooms perhaps there might come longings for such work as is being put into the Boston Public Library, for instance, by some of the best artists of the day. In fact, while the work to be done is the very best of its kind, yet it seems very questionable if the public is not to be dazzled by glitter and gorgeousness rather than be really impressed by true art, so that outside critics will have some justification in pointing to it as a sample of Chicago's taste for display and general loudness. Naturally, the destroying element of smoke in Chicago always has to enter into the thought of the decorator, and, of course, the glass, marble and mosaic work is best fitted to withstand such attacks from the enemy, but there is much in the designs accepted which will fall a rapid prey to the destroyer.

Besides the work in the entrance-hall of the Marquette Building, previously spoken of in these letters, the Tiffany Company is also just now decorating Christ Reformed Episcopal Church in the southern part of this city. To church-work and especially to churches of a certain character, the Tiffany work seems admirably adapted.

There has already been mentioned in these letters a plan that was being discussed for moving and raising a heavy stone church, spire and all. This proposed work is now under way, and about sixty days from the time of starting, the old structure will be resting on its new foundation, fifty feet south of where it has heretofore stood. The object of moving the church was to gain light on its north windows, as well as to permit the light to enter the south windows of the Hotel Metropole, which is its adjoining neighbor. The work has been undertaken not only by the congregation of the church itself, but by the hotel proprietors, as both structures in their former position were mutually harmful to each other. Of course, the undertaking was a much more difficult one than to move any large apartment or commercial building, for the church consisted of a large hollow space with a roof unsupported by partitions or piers. The body of the church is stone, while an addition is of brick. It has a ground area of 92' x 110', and a spire 150 feet high, 90 feet of which height is of stone masonry. The structure is a heavy one, it being estimated that it will average from six to nine tons to the lineal foot, three thousand tons in all. In an interview, the contractor who has charge of the undertaking says, "The church must be raised 6½ feet to bring it on a level with the new foundations. Then it must be rolled along fifty feet and set down plumb and even on its new foundation. This is how the work will be done: Long iron anchor-rods will be passed through the walls at the spring of the roof-trusses, so that the walls cannot bulge. The workmen will cut channels through the walls at foundations at intervals of six feet. Through these holes heavy steel I-beams will be passed. The ends of these steel beams will rest on crib-works of 6" x 6" timbers, cap timbers having been first installed for the jack-screws to rest upon. In this way, 2,000 heavy screws will be put in position for use.

"At this point the delicate work of lifting will begin. One hundred and twenty-six men, well trained to the work, will be put in charge of the screws, each having his own stint to care for. At a given signal every man will give a quarter-turn to each of the jacks in his charge. Thus the whole building will be raised a fraction of an inch. When the next signal is given, all the levers will be turned another quarter revolution. As the building goes up, new timber-work is built under the walls until at last the mass of stone and brick stands on stilts almost seven feet high.

"Preparations will then be made for the rolling operation. Heavy timber runways, or tracks, will be built every six feet in the direction of moving. Then the rollers will be put in position under the walls and the church will be a portable affair. But to set in motion every part at the same time and at the same rate of speed is a nice part of the work. Several hundred jack-screws will be installed on the side next to the Metropole. Fifty-seven men will man them, and when the signal is given, each man will turn his lever just so much — no more, no less. In this way the mass will be moved about nine inches a day.

"When at last the building is brought directly over the new foundation piers it is lowered into place by exactly the reverse of that by which it was raised in the outset. The steel bolsters are removed, the holes in the walls are filled up and the anchor rods are withdrawn."

This is a mammoth undertaking and if successfully accomplished, as there appears to be no doubt of its being in the mind of the contractor, will certainly be a marked feat, even in this city of frequent movings.

The exact opposite in point of size to this work is one which has been completed this month and which was exhibited in a private view to the architects of the city, before being sent to the Cotton States Exhibition at Atlanta. This is the miniature of the World's Fair. Before returning to Chicago to be placed before the public it will have been exhibited in Cincinnati, Louisville and Indianapolis. The model is 1-144th of the size of the original and cost \$60,000. Seventy-five workmen have been busy a year and a half on the model. Many of the men came from the Pullman shops and were used to fine work in woods. The undertaking was accomplished by means of reduced plans taken from the actual World's Fair drawings. The lighting of the grounds is extremely well managed, the smallest of electric lights being used. Even the dome of the Administration Building shines forth as it did in ninety-three, and the reproduction of the statuary around the miniature grounds is really quite remarkable. For sending to Atlanta the model will be packed in sixty sections.

It is curious how long reminders of the Fair stay by us. Now the Ferris Wheel, about whose location so many wild reports have been circulated, raises its mighty proportions in the northern part of the city. In spite of injunctions from the neighboring property-owners, and all sorts of set-backs since the first of last April, when the ground was broken for the foundation, the whole is at last completed, and one hundred and fifty invited guests sat in its hanging cars and made the first revolution since the days of the merry Midway. It probably will not be formally opened to the public this fall, but when it does turn, something which will be known as "Old Vienna" will be situated at its base.

Still another reminder of the Fair is the report that comes from Springfield of the permanent State Fair buildings and the incorporating into one of them of the dome from the Horticultural Building of the Exposition. The cut which was published in the papers shows a building with a dome rather out of proportion, but fairly well managed and one which evidently suits exactly the requirements of the case. It is to be used for the dairy exhibit and being circular in the interior will do away with the jealousy which previously has always existed on account of the different positions given to different exhibitors. The dome rises from a quadrangular base, forming annexes at each corner, which give it a not unsymmetrical outline and proportion, although, as suggested before, the general appearance of the building is that of an overgrown soap-bubble, despite the effort made to line up to the dome. It was, however, a pleasant enough thing as far as association went to save the structure, and a wise arrangement too, perhaps, when one considers the appropriate shape of the building for its use.

No action has as yet definitely been taken on the part of the City to further the plans for the improvement of the Lake-front as proposed by the Municipal League. The whole subject is now in the hands of the City Council to ratify the arrangements made with the Illinois Central, and definitely decide upon the general scheme of improvements and the laying out of the grounds.

If nothing has been accomplished on the Lake-front, wonders have at least been wrought by the City in a little North-Side square, between the Newberry Library and the Union Club, a grassy little spot for children to play in and old men to rest in, between Clark Street with its rumble of cable cars and Dearborn Avenue with the clatter of horses' hoofs on its asphalt. In the centre of the square was an inoffensive iron fountain painted green, into whose basin the children threw sticks and stones in summer-time and clambered in and out of, in the snow in winter. But alack! on an evil day it was found that in someone's will provision was made for a bronze fountain to be erected in this same square. Promptly on learning this that part of the city force having this square in charge proceeded to put the place in readiness to receive its gift. The old

iron fountain was promptly removed and its basin filled up, while around it was built a wall of concrete or rubble about six feet high. Around this wall a concrete curved seat was constructed, minus a drain, so that its ability to retain moisture is limitless, while at each corner some horrible little square towers were erected, expected in time to harbor drinking-fountains, but at present being useless monstrosities bearing aloft dishes of flowers. The man in charge circulates the report that no design was made, and that it was just a simple outburst of genius on the part of the workmen who were sent to construct something for the reception of the fountain. What kind of a fountain would not be struck by an everlasting drought at the sight of such a thing it would be difficult to picture, and how the beneficent giver can rest quietly in his grave would be hard for any self-respecting ghost to understand. The people whose houses adjoin the park would be amply justified in resorting to dynamite rather than be obliged to gaze at this thing day after day.

The Chicago Exhibition Company, which had on hand the construction of the big Coliseum, whose collapse was discussed in last month's letter, now announces that contracts are already let for its reconstruction, that this time no undue haste will be required as to its date of completion and that, before the building leaves the hands of the contractors, a thorough investigation and test of the structure will be made by the best known engineers.

THE NEW ST. LOUIS.

IT is quite possible for a New Englander standing on the levee at St. Louis to get a whiff of that physical sensation of being in a foreign land which constitutes one of the most vital of the charms of travelling. The muddy water of the Mississippi tumbling along at the foot of the steep incline of the levee, the levee itself, the strange form of the river steamboats with streams of undiluted soot pouring out of the crown-shaped tops of their slender twin smoke-stacks, and the groups of colored roustabouts, in all kinds of dishabille, furnish a setting of the scene that gives a distinctly foreign flavor to it all. The inhabitant will tell you that the scene has little of the spirit and vivacity of the days before the river steamers had been worsted in the competition with the railroads — but it has not lost all its charm and has still left a good deal of its former bustling gaiety. Mentally compare the possibility, so far as speed is concerned, of shipping freight by boat and by rail and the inference is in favor of the railroad, unless the charges are unduly high, and competition between the various roads has brought the rates down to a point where the greater economy of freighting by water is overbalanced by the saving effected through the speedier transport by land. As for passenger traffic, the comforts of the somewhat tawdry water-palaces of *ante-bellum* and immediately *post-bellum* days are quite outdone by those of the palace-car, and professional gamblers and stiff "jack-pots" are not unknown in the compartments of a palace car. Civilization has got beyond pistols and bowie-knives, but the autocratic palace-car porter is a poor substitute for the attentive waiter who understood that he could be sold "down river" if he did not prove sufficiently attentive and careful.

As travel by water decreased, so travel by land increased, and the busy throngs and the crowded tracks at the great Union Station at once mark what the river-men have lost, and show what an important place this metropolis, placed practically at the geographical centre of the country, has become. From the standpoint of the railroad man the depot is extremely well arranged, and the reasonably intelligent traveller finds there are not many questions he has to ask. From an engineering standpoint, the manner in which the thirty or more tracks are covered by a single roof is extremely interesting, and the lightness of the steel roof-trusses is conspicuous. The habit of the practical American of taking care of himself in his own way, and that way the one which will cause him the least trouble, is shown at this building in a way that must be disappointing to the architect and to the Terminal Association who own the building. The street-level in front is at half height of the lower story, so that one descends a half flight to reach the ticket-office, news-stands and exits to the track platform, or ascends a half flight to the large general waiting-room. It was expected that the hundreds of passengers who are always waiting about a large station would naturally make use of this room, but the simple fact that it is an easier thing to carry hand-baggage down stairs than upstairs sends the great proportion of all passengers to the lower room and platform, which in consequence become unduly crowded, while the great room upstairs is practically deserted. Indeed, that this was to be the fate of the room seems to have declared itself so soon that the managers seemingly have not thought it worth while to provide more than a few seats and benches. To have so fine a room as this one, decorated with much propriety and artistic success, prove to be little more than a "good advertisement" of the building, must be not a little disappointing to all concerned. The managers seemingly must shoulder the responsibility of the mistake, if it be one, as it ought to have been a matter of common knowledge with them that the public would not climb stairs, if possible to avoid them. If it can be conceded that a picturesque treatment is the one most appropriate for a great terminal station, then it must be acknowledged that Mr. Link has achieved a success, and though there are some features that might have been modified with advantage, there is comparatively little about the design which in future years he will look upon with the regret that a more simple treatment had not been

adopted. The building suffers through having not enough space in front of it, and as there appear to be within the limits of the city itself very little in the way of small parks and open squares, it is to be hoped that, at some time or another, the city will lay hand on a block or two in front of the station and lay it out as a park or garden.

This absence of parks has, apparently, led to the building of houses in a way that gives the city a characteristic air of its own. While there are blocks of houses built in solid rows, the greater number of houses toward the west side of the town are built isolated in the middle of small lots, so that a certain airiness and openness of aspect is secured at the expense of that more perfect privacy which is the attribute of the house built in the middle of a row. This local peculiarity has been taken advantage of in certain parts of the last-built quarters and several blocks of land have been set apart by the owners as "places," and the land sold only to those who were willing to build houses of, at least, a fixed minimum cost and a certain architectural value. Entrance to these places is had through gateways, each differing in design from the others and all of marked architectural excellence. This fashion of making these semi-private places seems to be extending and these gateways bid fair to be one of the distinctive features of St. Louis.

Within these places will be found houses of greater average excellence than we have ever seen elsewhere grouped within a similar area, houses mainly the work of the younger men who are making such telling marks in every section of the city in buildings of every description. While the style is varied and the work of the different men can be discriminated, there is a general tendency to work in a modification of the French Renaissance rather than in the Italian Renaissance which is now being so effectively used in the East. Its more varied and picturesque lines comport better with the semi-suburban character of the surroundings, than would the more formal lines of the Italian school. Now and then one comes upon a house that suggests the Lake Shore Drive in Chicago and reminds one how much better chance these young men have than their fellows had when they were building up Chicago in that style which was vainly imagined to be Richardsonian. St. Louis, or its inhabitants rather, has been supposed to be chagrined that Chicago has outstripped her in progress and development, but we fancy that in all that concerns architecture the tables are likely to be turned, and that before long St. Louis can boast of possessing a more refined architecture than has the big city by the lake. The work of rebuilding St. Louis, which must be done, is still to do and it is her good fortune that this rebuilding is likely to be done in an American adaptation of Renaissance rather than in such gross interpretation of Romanesque as has overloaded Chicago and given the general architectural character of that city so pronounced an air that it will be very long before any change of fashion in architectural style can do much to ameliorate it.

The St. Louis speculating builder is quite unconsciously playing into the hands of the St. Louis architects. He has noted that they have adopted a new style and are using a great variety of materials, and by so doing have produced some most charming results which have enhanced the value of surrounding property. To change his style (as he understands style) and use a great variety of material is for the speculating builder an easy thing to do, and he has proved it. He has run up hundreds of houses of the most variegated colors, wrought in the most extraordinary forms, which he supposes to be Renaissance, and has brought them into as close proximity as possible to these select "places." But the American citizen, now that he has begun to pay attention to matters of art, is proving himself to be a person of not a little discernment and power of discrimination. With examples of what is fairly good and what is positively bad set before his eyes at the same time he, apparently, has no trouble in deciding which is which, and which he is willing to spend his money for. The result is that the speculating builder finds few "takers," for there are hundreds of these eccentric creations standing tenantless and giving to that part of the city the air of being greatly overbuilt.

The business portion of the town does not have the air of individuality that the new semi-suburban district is acquiring. The early wooden and low brick warehouses have been very gradually replaced by higher and more elaborate buildings, the general character of which is neither better, worse, nor very different from buildings erected about the same time in any other city. The more modern structures, those belonging to the "insurance-building" period appear to have been built at different times and only to meet an apparent demand, that is, the growth seems to have been a natural one, not a "boom" growth. Booms are usually brought about by the injection of outside capital and alien interests, and it is the boast of the citizens of St. Louis that the city owes its development to its own resources and the energy of its citizens and only very slightly indeed to "Eastern capital," which has played so important a part in the building-up of Chicago. Here and there, indeed, can be found important buildings designed by Boston, New York or Chicago architects, and it is possible that the money that paid for these buildings was not drawn from St. Louis purses, but we believe that the boast that St. Louis has created her own greatness, is a well-founded one. How long this boast can be held good seems doubtful, since at this writing the newspapers report that there is on the point of consummation one of the largest real-estate speculations which has ever undertaken to affect the development of a city,

by which "Eastern capital" to the volume of twenty-two millions of dollars is to be employed in reclaiming and developing that part of the city bounded by Third Street, Main Street, Market Street and Washington Avenue.



THE ENGINEERS' CLUB OF PHILADELPHIA.

AT the regular meeting, October 19, 1895, seventy-nine members and visitors were present.

A general discussion on the durability of iron in modern building construction was opened by Mr. W. C. Furber, who prefaced his remarks by stating that the subject was one which very few professed to know much about, and that it was hoped that this discussion might cause a general interchange of the information possessed by members. From direct experimentation on rust-prevention, he had been able to add but little to existing knowledge, and would, therefore, give principally the results of those who had spent more time in studying this subject.

The preventing of corrosion consists in first cleaning the metal by means of pickling, and then applying the protective covering, the latter, of course, depending upon the use and location of the material to be protected. It has been found necessary to pickle the plates forming the hulls of vessels, and it would, therefore, seem to be even more important to use some means to prevent corrosion in those parts of a building which cannot be examined after erection. In high buildings, which have become the order of the day, the decay of the main lines of support, through corrosion, would involve problems of responsibility and cost, which those connected with their design and erection cannot but thoughtfully consider.

Most of the information that we have on the subject of rustless coatings for iron and steel is the result of the valuable work performed recently by Mr. W. P. Wood, of the American Society of Mechanical Engineers, from whose papers many of Mr. Furber's statements were quoted.

The coverings available at present are paints, bituminous coatings and cement, and all three can often be used on the same structure to advantage. Cement properly applied has many advantages over other coverings, and may be said to be the most efficient, on account of the ease of its application. Heretofore, it has been used mostly on such parts of the structure as are below ground, but there seems to be no good reason for not using it to cover the other parts of the structure as well.

Mr. Furber then read a number of extracts from articles concerning rustless paint, cement coverings for ships, and asphaltic, graphite and carbon coverings, and at the conclusion of his remarks some samples of metal from the Tacony Iron and Metal Works were exhibited, showing the iron with the natural scale on it as it comes from the roll, and other samples which had been pickled.

Mr. C. D. RINALD: Rusting takes place by the combination of oxygen with iron which has first been combined with an acid, generally carbonic. Iron which is slightly rusted will attract more moisture and continue to rust under conditions where clean iron would remain so. Although black oxide is a very good protection, it is only used for small articles because it is very hard and extremely brittle; and where it breaks off, a small spot of red oxide will form, as can be observed very often on wrought-iron signs treated in this way. Of course, when any kind of protection is mechanically removed, there is nothing to prevent the iron from oxidizing. Linseed-oil is the best material to use for rustless coverings. Though I do not know very much about coating iron with cement, I know that coating it with lime is a very good method of preventing rust.

Mr. CHARLES M. MILLS (visitor): While chemical investigations are very valuable, it is not safe to accept them unless they are confirmed by actual experience; and in this matter of rust prevention, it would seem that the time has come to deal scientifically and systematically with the subject. While the quality of steel and iron is carefully dealt with in the specifications for bridges and other structures, only a very subordinate place has been given to the important consideration of protecting the material. The value of paint depends upon the climatic conditions which prevail where the structure is, and the artificial influences to which it is exposed. It would, therefore, seem to be a good plan for this, or some other society, to secure the cooperation of the chief engineers of railroad systems, and establish a certain group of points where experimental tests should be conducted; for instance, one near the Atlantic Coast, another in the Mississippi Valley, another near the Gulf of Mexico and another on the Pacific Coast; and then endeavor to have a certain number of structures in these different localities painted with compositions selected as the best by a committee who would also make sure that the component parts of the paint were pure and of uniform quality. It seems to me that the importance of determining the best preservative for their buildings and bridges would lead railroad companies and the owners of other structures to cooperate in an intelligent effort of this kind, and the results would probably be of great value.

Mr. EDWARD K. LANDIS: Although some claim that asphalt paints have great resisting power against atmospheric and other influences, the experience which I have had with these materials under the action of laboratory fumes has not corroborated this testimony. This experience would seem to show that asphalt is more or less porous, and that the moisture passing through the pores rusts the iron underneath and causes the whole coating to peel off.

Mr. JAMES CHRISTIE: I think that no matter what oil or covering material you use, unless the metallic surface is first clean and free from scale and rust, it will not be efficacious. The composition of the iron undoubtedly has much to do with the facility with which it rusts, and I think it has been proved that when there is a considerable percentage of nickel, the iron does not readily corrode. Unfortunately, the present price of nickel makes such a composition too expensive. It is also claimed that very pure iron is extremely susceptible to corrosion. About seven years ago I noticed, in visiting a concern in Middle France, that they prepared light rails, etc., by passing them first through machines where the surfaces were scraped thoroughly by revolving brushes of stiff wire, so that they were thoroughly cleaned, after which the iron was passed through a large tank, where it was thoroughly coated with a varnish applied by stiff brushes. The process seemed to be cheap and very thorough.

Mr. F. SCHUMANN: I doubt whether a paint will ever be discovered that will be a permanent protection to iron, and I believe that permanency of metal construction will depend on continual watchfulness. A building or other structure should be designed so that the vital parts can be readily gotten at, instead of which we see some of our large buildings being put up with columns entirely enclosed with brickwork, and if any corrosion should take place at the base of these columns, their increasing weakness would be only a matter of time.

Mr. A. FALKENAU: I know of a case in New York where a builder insisted upon having the outside of a large building paraffined from top to bottom, for the purpose of preventing moisture from being driven through the wall. Experiments previously made had shown that water could be driven through a wall which was $\frac{3}{4}$ feet thick.

Mr. WILLIAM BARR, JR. (visitor): It seems to me that, first of all, a high structure should be a strong one, and in building construction I think it well, if possible, to have the parts exposed, so that they can be examined and treated after erection if necessary. After a very thorough search into the literature on the subject of our discussion, I have found that the consensus of opinion seems to be that red lead is the best preservative.

Mr. FURBER: I should have been glad to have heard more discussion on the subject of coating with cement, as I think that if properly applied, it will prevent the iron from corroding for an almost indefinite period.

Mr. CHRISTIE: I know of a case where columns made out of angle-iron used to support boilers in a place where there was much water, were covered with a mixture of sand in hydraulic cement, and after fifteen years, when the work was again examined, the iron covered by the cement was found to be in perfect condition, whereas it was considerably eaten in the parts exposed to the corrosive action of the water.

Mr. GEO. S. WEBSTER: With regard to the deterioration of iron in highway bridges under which locomotives pass, it seems almost impossible to effectually protect the metal. There are two bridges in this city in which an effort has been made to cover the girders by a white-pine flooring painted with an asbestos paint. It remains to be seen whether this will resist the action of the locomotive gases.

L. F. RONDINELLA, Secretary.

THE FLAGSTAFF OF THE CATARACT CONSTRUCTION CO.: A CORRECTION.

THE publication in our issue for September 28, of a drawing of the base of the flagstaff of the Niagara Construction Co., has brought out protests from two directions.

On the authority of the gentlemen who made the drawing we associated with the architects' names that of Mr. MacMonnies as the sculptor. This led Mr. W. H. Mullins of Salem, Ohio, to say he felt that his name and the names of his modellers should be associated with the work in place of MacMonnies's, and later Mr. Stanford White wrote that "Mr. MacMonnies had nothing to do with the flagstaff in question, which was designed in our office."

Scribner's Magazine for November, however, contains an article on the work of Mr. MacMonnies, from which it appears that he did model the seal of the Cataract Construction Co., which Mr. White included in his design for the base and which apparently has caused the confusion.

FIRING AT WAR-BALLOONS.—Some experiments have been made lately in Austria to test the chances of a war-balloon being hit when fired at. A captive balloon at an altitude of about 4,265 feet was fired at from a distance of 4,400 yards, and was struck nine times without being brought down. In a second trial a captive balloon, at a height of about 2,625 feet, was fired at from 5,500 yards distance. A violent wind, causing the balloon to plunge a good deal, rendered the aim very difficult, and the balloon was not brought down until the fifty-sixth round. — Philadelphia Record.



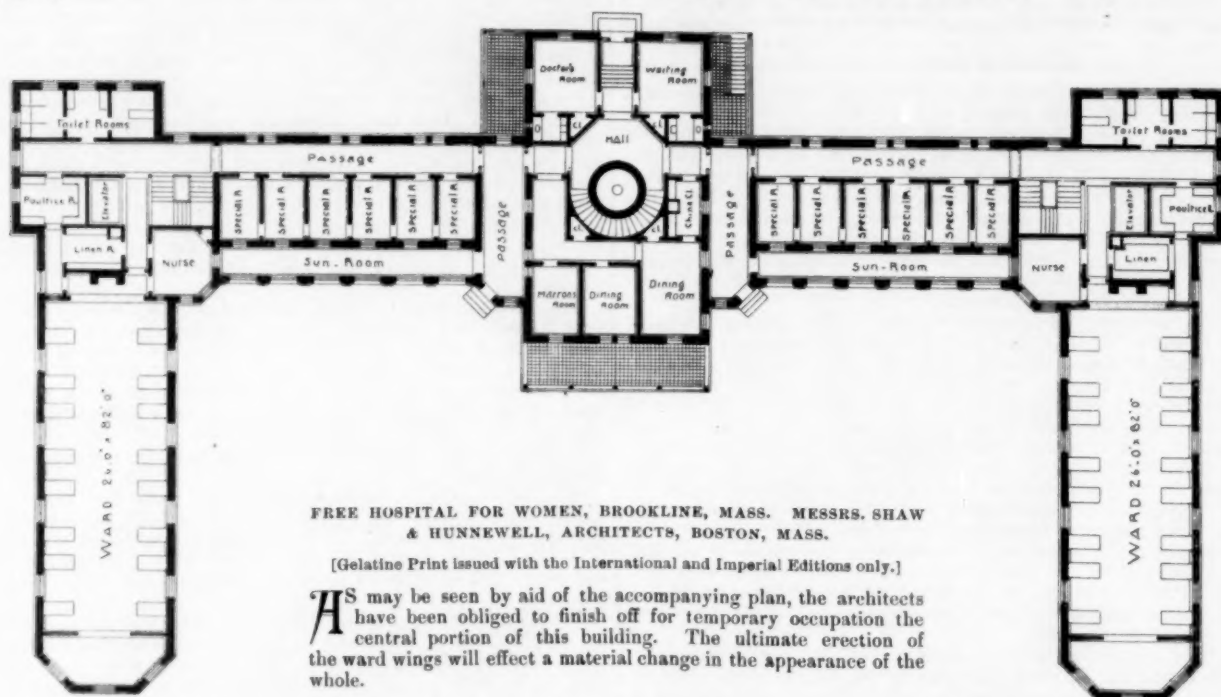
[Contributors of drawings are requested to send also plans and a full and adequate description of the buildings, including a statement of cost.]

EXTERNAL STAIRCASE TO CHURCH AT BINDLACH NEAR BAYREUTH.

This plate is copied from *Architektonische Rundschau*.

INTERIOR OF THE SCHLOSSKIRCHE, WITTENBERG, MECKLENBURG-SCHWERIN.

This plate is copied from *Zeitschrift für Bauwesen*.



FREE HOSPITAL FOR WOMEN, BROOKLINE, MASS. MESSRS. SHAW & HUNNEWELL, ARCHITECTS, BOSTON, MASS.

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

As may be seen by aid of the accompanying plan, the architects have been obliged to finish off for temporary occupation the central portion of this building. The ultimate erection of the ward wings will effect a material change in the appearance of the whole.

CITY MARKET, SPRINGFIELD, MASS. MESSRS. GARDNER, PYNE & GARDNER, ARCHITECTS, SPRINGFIELD, MASS.

HIGH SCHOOL BUILDING, SOMERVILLE, MASS. MESSRS. HARTWELL, RICHARDSON & DRIVER, ARCHITECTS, BOSTON, MASS.

PROPOSED FISKE MEMORIAL LIBRARY, WRENTHAM, MASS. MR. D. H. WOODBURY, ARCHITECT, BOSTON, MASS.

COMPETITIVE DESIGN FOR THE PUBLIC LIBRARY, FALL RIVER, MASS. MR. N. C. SMITH, ARCHITECT, NEW BEDFORD, MASS.

[Additional Illustrations in the International Edition.]

FREE HOSPITAL FOR WOMEN, BROOKLINE, MASS. MESSRS. SHAW & HUNNEWELL, ARCHITECTS, BOSTON, MASS.

[Gelatine Print.]

THE MYSORE GOVERNMENT MUSEUM, BANGALORE, INDIA.

This building was designed by Major Sankey, R. E., when Chief Engineer of Mysore (1874), to supersede the then existing tumble-down building in Shulé. The foundations of the building gave a good deal of trouble, the site being partly on very shelving rock, upon which there was an enormous boulder, whereas on the opposite side the foundations were on numerous picottah wells, several of which had to be filled-in with concrete, this portion of the site being on an old garden. The building was completed in 1877 at a cost of Rs. 44,628.

The view is copied from *Indian Engineering*.

THE MAYO MEMORIAL HALL, BANGALORE, INDIA.

This building was erected to the memory of the late Lord Mayo, partly from money raised by public subscription in the Mysore Province, and partly from funds given by the Bangalore Cantonment Municipality. The design was by Col. R. H. Sankey, R. E. The building was completed towards the end of 1881. The total cost of the building (exclusive of the out-offices, etc.) was Rs. 44,960. It is used as the Court and Office of the District Magistrate of the Civil and Military station, and President of the Municipal Commission, but is hired out for occasional balls during the season, as also for "public meetings." The court-room, upstairs, is a handsome one, and one of the best for dancing in Bangalore.

The view is copied from *Indian Engineering*.

SUN-DIAL, WHATTON HOUSE, NEAR LOUGHBOROUGH, ENG. MESSRS. BREWILLE & BAILY, ARCHITECTS.

The original drawing, which we copy from a reproduction in the *Builder*, was hung at the last Royal Academy. The group is executed in Portland stone, the four figures upholding the dial representing Clio, Euterpe, Erato and Urania.

PULPIT IN THE SCHLOSSKIRCHE, WITTENBERG, MECKLENBURG-SCHWERIN.

This illustration is derived from the *Zeitschrift für Bauwesen*.

MONUMENT TO ACHILLE TESTELIN, LILLE, FRANCE. M. LOUIS BONNIER, ARCHITECT; M. A. CORDONNIER, SCULPTOR.

The sculptured figures, with the exception of the crowning bust which is of marble and the statue of the Republic which is of a light stone, are cast in bronze. The cost of the monument, which was erected last year, was only about \$10,000. The illustration is reproduced after *L'Architecture et la Construction dans le Nord*.

NEW BATHS AND WASH-HOUSES FOR DEPTFORD, ENG. MR. THOMAS DINWIDDY, ARCHITECT.

Commissioners of Baths were appointed some years ago to prospect sites, and in 1890 designs were obtained in competition for adapting the old Deptford Lecture-hall as public baths. The designs of Mr. Thomas Dinwiddy, of Greenwich, were then selected, but objections were raised in the vestry to the proposed site. Another site in New Cross-road of three-quarter acre has since been bought at a cost of about £7,000, and the commissioners instructed Mr. Dinwiddy to prepare plans for the new buildings. These plans were adopted and the work is in hand. The accommodation comprises a first-class swimming-bath, 35' x 110', with galleries; a second-class swimming-bath, 27' x 80'; 15 first-class and 30 second-class slipper-baths for men, and 5 first-class and 10 second-class for women. There is a public laundry, and administrative accommodation for the Board and clerk and the superintendent. A well on the site will supply the baths. In addition to the intended baths and wash-houses, the architect's instructions comprised the provision of a new vestry-hall and offices for the parish, and the illustration which we now give represents the entire project, showing the façade in New Cross-road. The plans clearly indicate the internal arrangements. The contract amount is £32,950.

This illustration is reproduced after the *Building News*.

ENTRANCE TO A RESTAURANT, PARIS, FRANCE. M. LECQ, ARCHITECT.

This plate is copied from *La Construction Moderne*.

DOOR OF THE FACULTÉ DES SCIENCES AT THE SORBONNE, PARIS, FRANCE. M. NENOT, ARCHITECT.

This plate also is copied from *La Construction Moderne*.

SKETCHES BY A LATE HOLDER OF THE ROTCH TRAVELLING-SCHOLARSHIP, MR. J. W. CASE.

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.]

HEAVY FOUNDATIONS ON THE LOT LINE.

NEW YORK, N. Y., October 22, 1895.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—The following subject of almost vital importance in connection with the design of foundations in our large buildings is frequently overlooked, although it has been referred to on previous occasions. The principle of centralization of loads and reactions is well known and continually made use of in engineering design, but frequently it is lost sight of in architectural work. I therefore, believe it advisable to call attention to this fact and that an illustration will be of service. The enclosed section is that of a wall which a short time ago came under the writer's observation. The building is a nine-story office-building, interior of steel construction with beams resting on the walls. The outer edge of the wall is on the lot line. The building-law stated that the earth shall be deemed to safely sustain a load of four tons to the superficial foot, and apparently the designer considered himself justified in spreading his footings over the seven feet of width, as shown, and that the pressure had to distribute itself over this area.

Now the above is far from the actual state of affairs. The forces called into play, consisting of the weights of masonry, floor and superimposed loads and the resisting earth, have certain fixed laws which must be followed and it is necessary to trace out their action.

These forces have distinct determinable points-of-application and the earth below has a distinct resistance with its point-of-application. It should be the work of the designer to have these loads not only equal, but their points-of-application or centres-of-pressure opposite, if possible. If the above is not achieved, these opposing forces form a couple or pair of forces acting in opposite directions at different points, which tend to overturn the foundation. In the case under consideration, a calculation of the weights of the masonry and floor-loads and their lines of gravity shows the centre-of-pressure on the earth at the foot of the wall to be 17.15 inches from the lot line.

The total weight per running foot, resting upon the earth bottom, is 56,200 pounds.

The point-of-application of the resistance of the earth is at the centre of the footing or 42 inches from the outside. These two forces form an overturning couple, its moment having a lever-arm of 24.85 inches.

Now since the earth is supposed to yield after a load above 8,000 pounds per square foot is applied to it, we can readily conceive the state of affairs and trace out the effects. The earth under the side of the wall nearest to the point-of-application (A) is subject to a greater strain than any other part and consequently will settle first.

This action can be likened to that of a plank floating in the water. If a pressure be applied at its centre, the whole sinks uniformly. If, however, the pressure is applied nearer one end, this end sinks more than the other because the pressure is greater at that end. This will continue as long as the point-of-pressure is applied within the middle third of the piece. If the point-of-pressure is beyond the middle third, the further end will rise out of the water, showing that this end not only carries no part of the weight, but carries a negative load, i. e., there is a force at work lifting it out of the water. The amount of the pressure can be determined by calculation. Our case is practically a duplicate of this. Knowing these, we determine the following as the pressures on the soil:

Average pressure per square foot should be 8,027 pounds. Maximum at outside of wall, 22,160 pounds per square foot.

Zero at 5 feet 5½ inches from outside of wall.

Minimum at inside edge, 6,160 pounds per square foot.

If the earth be unable to stand this pressure of 22,160 pounds instead of 8,000 as intended, the only resistance to overturning the wall foundation will be the tenacity of its materials. The results of such increased pressures are frequently seen in cracks in the wall on one side and crushing of the brickwork on the other. It is fortunate that hitherto no serious accidents have occurred directly attributable to this cause; but with our increasing loads, it is playing with fire to permit this, and we cannot consider better modes of distributing foundation loads too soon.

Certain it is that this subject is of sufficient importance to claim the attention of those members of the profession who have hitherto overlooked it. Very truly yours, OSCAR LOWINSON.

[The difficulty presented by cases in which a heavily-loaded wall, placed on the boundary-line of the lot, must be supported on a foundation of considerable spread, the edge of which cannot pass the same boundary-line, is very well known to architects, and Mr. Lowinson's warning is a timely one. In some recent buildings, the problem is solved by setting the basement wall some distance inside the lot line, so as to bring it toward the middle of the footings, and projecting the beams of the first floor over it, as cantilevers, to the lot boundary, supporting the superstructure on the ends of these cantilevers. There are obvious disadvantages in this construction, but in some cases there seems to be no better way of avoiding a couple between the load and the reaction of the earth. — EDS. AMERICAN ARCHITECT.]



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

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

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

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

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

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

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

Photographs of the Work of Burne-Jones: at Walter Kimball & Co.'s Gallery, 9 Park St.

Illustrations of Shakespeare's Comedies by Edwin A. Abbey: at J. Eastman Chase's Gallery, 346 Boylston St.

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

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

CINCINNATI, O. — Exhibition of Woman's Art Club: at Closson's Gallery, opened November 4.

NEW YORK, N. Y. — Twenty-ninth Semi-annual Exhibition, including Loan Exhibition of Early American Paintings, old English Paintings, and the Cullum Collection of Classic Sculptures: at the Metropolitan Museum of Art.

Turner's "St. Mark's Place, Venice," also, Paintings by other English Artists: at the Avery Galleries, 368 Fifth Ave.

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

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

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

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

Illustrations of Shakespeare's Comedies by Edwin A. Abbey: at H. Wunderlich & Co.'s Gallery, 808 Broadway.

Works by Gerke Henkes: at the Holland Art Galleries, 329 Fifth Ave.

Sir Joshua Reynolds's "Death of Dido": at the Blakeslee Galleries, 353 Fifth Ave.

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

PITTSBURGH, PA. — Loan Collection of Paintings: at the Carnegie Library, during November.



A HIGH TOWER. — The new waterworks tower just completed at Eden Park, Cincinnati, Ohio, is the highest artificial structure in America. The floor of the tower, reached by elevators, is 522 feet above the Ohio River. The base is 404 feet above the stream. — Invention.

AN INDIAN POMPEII.—Nothing sadder or more beautiful exists in India than the deserted city of Fathpur Sikri. There it stands, some twenty-three miles from Agra, much as it stood three hundred years ago, when Akbar decreed the stately pleasure-house. It was built to commemorate the blessing of the holy Salim Chishti, the hermit who dwelt among the wild beasts in his cave at Sikri, and who had foretold that Akbar's son, born on that spot, should live to succeed him on his splendid throne. The saint did not foresee that the infant would grow up into that unmitigated debauchee Jehangir, whose orgies amazed Sir Thomas Roe and whose potent liquor caused that virtuous ambassador to sneeze incontinently, to the delight of the whole court. But the heroic toper did not defile his father's palace city, which must have been deserted soon after its founder's death; for when William Finch visited it in 1610 he found it "ruinate, lying like a waste district, and very dangerous to pass through at night." Ruinate it has remained ever since, desolate and abandoned. No later ruler of India has ever dared to live in Akbar's Versailles, just as no ruler of India has ever climbed to the heights of Akbar's genius. In the empty palaces, the wonderful mosque, the sacred tomb, the baths, the lake, at every turn we recognize some memory of the greatest of Indian Emperors. We may even enter his bedroom—the *Khwabgah*, or "Abode of Dreams"—and see the very screens of beautiful stone tracery, the very Persian couplets, the identical decoration in gold and ultramarine, upon which Akbar feasted his eyes during the long sultry afternoons of the Indian plains. We may walk into the houses of Faizi and Abul-Fazl, the laureate and the premier of his empire, who sang his glory and chronicled his reign. We may see that strange building, the Diwan-i-Khas, with its central pillar-throne and odd galleries, which some have sought to identify with the famous hall where metaphysical debates took place every Friday night under the Emperor's personal presidency, and philosopher and theologian, orthodox and sceptic, did furious battle for their creeds or doubts, till they ended, long after the "small hours," by bandying "pervert" and "atheist," to the disgust of an unwilling witness—the austere Badaoni. The associations of Fathpur Sikri, "City of Victory," are not its only claims to our interest and respect. Its beauty in desolation excited the poetic imagination of Heber and stirred the critical enthusiasm of Fergusson, who says of the "Turkish Sultan's house," which still overlooks the Pachisi Court, where Akbar is fabled to have played his games of living chess, that it is "impossible to conceive anything so picturesque in outline" or any building so richly and wonderfully carved without the least exaggeration or bad taste. Equally exquisite is the celebrated shrine of Saint Salim Chishti, built in 1590, with its pure white marble cenotaph, its red sandstone dome, and its veranda enclosed by delicately pierced *fali* screens of fair marble, like fine lace set in samite. And for grandeur what can compare to the stately "High Gate," Buland Darwaza, of the mosque which crowns the rocky plateau, and which the historian of architecture cites as "noble beyond any portal in India, perhaps in the whole world?"—*St. James Gazette*.

THE IMPERIAL PALACES OF JAPAN.—There are thirty palaces belonging to the imperial family in various parts of Japan, but the present Emperor has never occupied more than three or four of them, and some of them he has never seen. There is a stock-farm at Nikko belonging to the mikado, and tourists are always amused at a large, oddly-painted sign which advertises milk from his cows for sale. The Emperor seldom leaves the new palaces at Tokyo, which are more modern and comfortable than any of the others and were only completed in 1888. They consist of a labyrinth of one-story buildings, all connected by covered passages and surrounding beautiful courts. Their architecture is of the ancient Japanese style, with high roofs at sharp angles and heavy gray tiles, and the interior of most of them is finished in the native fashion, with partitions of sliding screens and floor matting, which the inmates use for beds, chairs and tables, as it happens to be necessary. But several of the rooms have French furniture of ornate and expensive workmanship, much of it being rosewood, handsomely carved and inlaid. The apartments occupied by both the Emperor and Empress are furnished in that way. Both prefer to sleep in a modern bed and sit on a chair before a table, with knives and forks and china when they take their meals, but the Emperor is understood to wear the native dress, except on occasions of ceremony, and when the Empress retires to the privacy of her apartments she throws off her close-fitting waist and corsets and puts on the more comfortable kimino.—*The Churchman*.

THE ITALIAN RENAISSANCE.—This Renaissance of Classic architecture began in Florence, under Brunelleschi and Alberti. Later, in the north, another school arose in Milan under Bramante, and these two branches finally met and produced their highest results at Rome. We tried to trace these schools in their respective fields, and it was of course in Florence itself that we found the visible first fruits of the Renaissance, so far as architecture is concerned. At Pisa, it is true, we saw how Nicholas, the sculptor, had drawn inspiration from ancient Rome models for the figures on his pulpits; but the Gothic carvers of the façades of Paris and Amiens had done as much a hundred years earlier, and the wonder is that artists and craftsmen should ever have ceased to cherish and assimilate the ancient work by which they were surrounded, and which was so far beyond their own powers. Apparently, however, for a hundred years after Nicholas, of Pisa, men paid no heed to the architectural monuments of antiquity around them. The real awakening came almost simultaneously to collectors, who were eager for jewels, coins and ivories from Greece and Rome; to scholars who with avidity sought the classic manuscripts that until then had been buried in the monasteries; to painters and sculptors and architects, who suddenly saw beauty in the models of classical antiquity, and strove to graft the antique traditions on the civilization of their own time. What the French sculptors of the twelfth century strove to imitate; what Nicholas of Pisa faintly saw in the thirteenth century; what Petrarch at Padua, and Giotto, Orcagna, and Simone Memmi in Tuscany, found in the classics to delight them in the four-

teenth century, all this finally took form with the quattrocentists, and was spread by many helping spirits over Tuscany and the world. As for architecture, this movement began in Florence, and the return to detail, carefully studied upon the ancient Roman models, was abrupt and without transition. Brunelleschi was the guiding active mind, the Medici gave the opportunities, Donatello's refined genius inspired the decoration. The spirit of the Renaissance gradually became a patriotic fervor. Men thought they had reclaimed their inheritance from the Cæsars, and wondered that they had ever fallen away from the wonderful models all around them.—*R. S. Peabody in Atlantic Monthly*.

LEASOWE CASTLE.—A great chance for the collectors is soon to occur in the sale of an Elizabethan castle, with all its valuable contents, in Cheshire, England. It is the residence of Sir Charles Cust, and was built by the Earls of Derby, when it passed from that family to the present owner's great-grandfather. It is chiefly noticeable as containing a fac-simile of the notorious star chamber, lined with the original oak panelling of that apartment. The wood is in an excellent state of preservation. The star chamber contains some fine specimens of antique oak furniture, and included in the contents of the castle are valuable old oak cabinets, chairs and other articles, which have been in the mansion since the sixteenth century. Nearly all the subsequent changes of taste are represented, and the collection of Chippendale is of unusual importance. It makes the mouth water to think of all these treasures which are to be dispersed by auction, but the wise American who is also rich will secure the star chamber and bring it over here, where it can be set up in a brand-new house, a veritable star of antiques. Save for these forced sales of family relics abroad, people with fine tastes to gratify would not fare very well. But the fallen fortunes of one are the happy accidents of others, and so, it is presumed, some rare pieces of old furniture may soon find their way to this appreciative town from far Leasowe castle.—*Boston Herald*.

THE CENTENARY OF HOUSE-NUMBERING.—Berlin is preparing to fête the hundredth birthday of the house number. In the London and Paris of a century ago ciphered houses did not exist. The coat-of-arms, the house-name, or the sign-board were the only indications to guide our ancestors' wandering feet by day or dark. "Watchman, what of the night, and where the deuce am I?" must often have been the cry of these bewildered minds. Berlin began to number houses in 1795. Starting from the Brandenburg Gate, the Prussian ediles counted straight on to infinity, neither beginning afresh with fresh streets, nor numbering the houses by odds and evens. Vienna adopted the latter reform in 1803, and Paris followed in 1805. The ciphered house came 100 years ago; the ciphered citizen is surely coming. Already a postal society is being formed in Vienna to suppress all names and addresses, and to deliver letters by a system of private marks and identity tickets. Our familiar addresses will look 100 years hence like the beginning of an algebraical problem, and our personality will be reduced—like the Government majority—to a mere expression of naughts and crosses.—*The Churchman*.

GLASTONBURY ABBEY.—It is stated that the Duke of Norfolk is in treaty for the purchase of the ruins of Glastonbury Abbey, his intention being, if he succeeds, to restore it and present it to a Catholic order, says the London correspondent of the *Freeman's Journal* of Dublin. Glastonbury was once the most magnificent and richest abbey in the world. Its abbot had the power, received from Canute, the Dane, to refuse admission to enter its precincts to every person, even the king. Richard Whiting, the last abbot, was hanged in his robes for refusing to acknowledge the supremacy of Henry VIII., and the abbey was subsequently dismantled. It is now a picturesque mass of ivy-clad ruins, but sufficient remains to enable its departed glories to be vividly recalled. Almost every house in the adjacent town, which sprang up under the ægis of the abbey, is now either repaired or ornamented with carved stone from the ancient structure. The restoration of Glastonbury and the occupation of its hallowed cloisters by a Catholic order would mark an important era in the restoration of England to the faith.

LEICESTER AND ITS TEMPLE OF JANUS.—It may be interesting to old Shakespearean actors, as well as the lovers of Shakespeare, to learn, writes a correspondent of the *London Era*, that there exists at the present time in the town of Leicester a ruin of a temple dedicated to Janus. This ruin is known as the "Jewry Wall," and is in danger of being swept away to make way for the new railway station of the M. S. & L. Company in connection with their trunk-line to London. The owners of an adjoining factory have included this remarkable ruin in the sale of their property, although the vicar and church wardens of St. Nicholas, who claim the ruins as theirs, have protested. From accounts in my possession, it appears that King Lear founded the town or city of Leicester 884 years before the birth of our Saviour, and that he built therein a temple dedicated to Janus, and placed therein a Flamen (a pagan priest). It further appears that King Lear was buried in this temple by his daughter, Cordelia; also that another king of the Britons, named Archigalls, was buried there. As an action in the matter is pending, the vicar and church wardens would be glad of any assistance. Their object is not only to prove their right ownership, but also to preserve this important and interesting relic intact. Leicester has in the past lost too many historical relics, so that we ought to draw the line somewhere. Not far away stood the inn where Richard III slept on his way to Bosworth, also the Bow Bridge over which the king and his army passed. The theatre where Grimaldi performed has disappeared, but the room wherein Shakespeare read his plays still remains intact in the shape of the old town-hall. Gopsall Hall, too, where Handel spent some time, and where he wrote or prepared his great work, "The Messiah," remains intact. Leicester's former name was Learceaster.

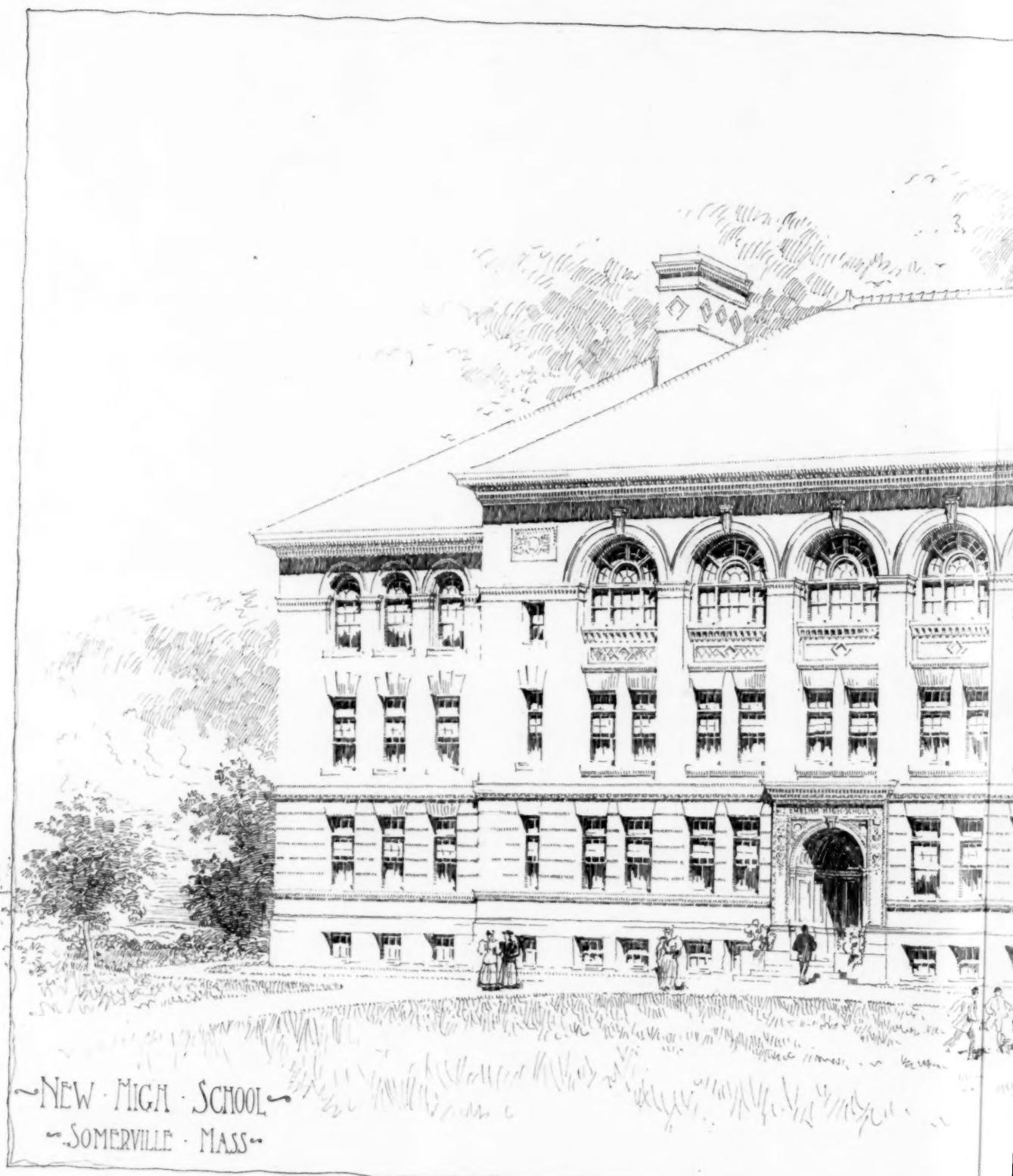
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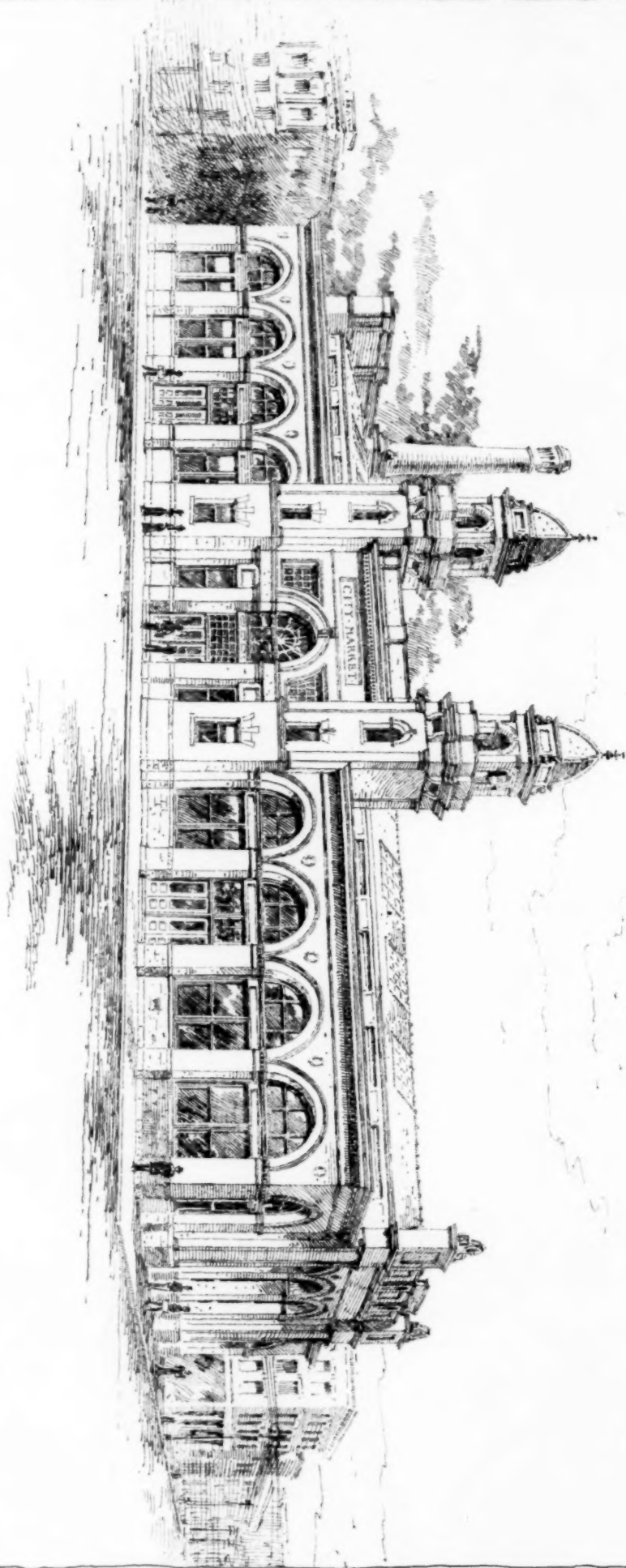


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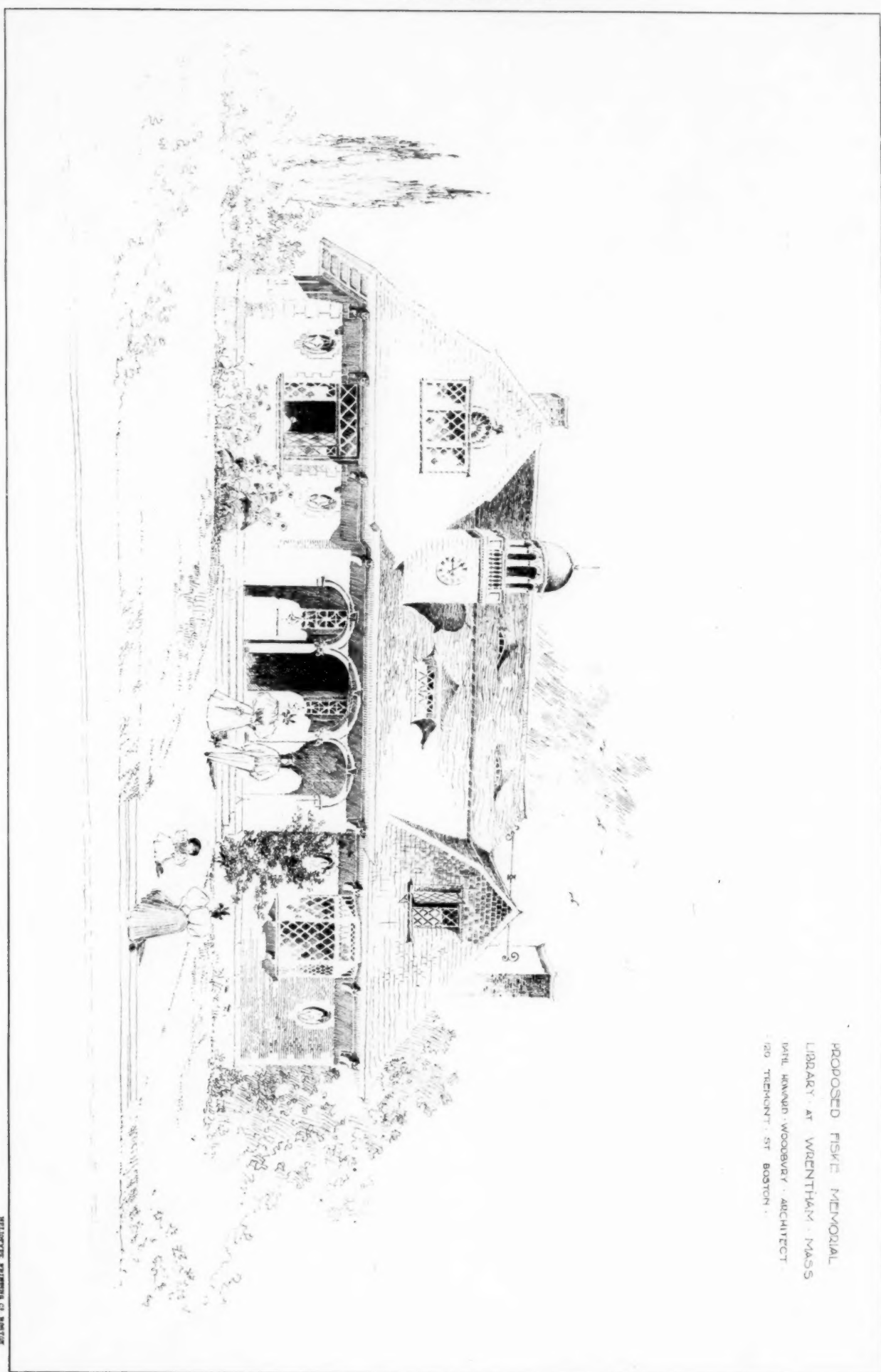
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