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A LITTLE discussion has been going on in the Boston *Transcript* about the labelling of objects in the local Museum of Fine-Arts. A lady writes to that paper, quoting the remark of the late Professor Goode, of Washington, to the effect that a museum should be "a collection of labels with illustrative objects attached," and saying that there should be more labels and other means of instruction attached to the pictures and other things shown in the galleries of the Museum of Fine-Arts. To this letter Mr. Benjamin Ives Gilman, the Curator of the Museum, replies in an interesting communication, in which he maintains the rather startling proposition that "a museum of fine-arts does not exist for purposes of instruction at all, but solely for purposes of enjoyment." He goes on to say that while Professor Goode's definition is excellent as applied to museums of science, in which, as is the case in the one so long under his own charge, the labels may almost form a treatise on ethnology, or mineralogy, or natural history, with the objects themselves as illustrations, the case is very different in art museums. "Whenever," as he says, "instruction contributes to artistic appreciation, as it does by no means invariably, agencies of instruction, such as labels, catalogues, viva voce interpretations, etc., are permissible in a museum of fine-art. But they are permissible only in so far as they contribute to the artistic pleasure of the visitor, and not at all if they interfere in any wise with that pleasure, however much they may add to his intelligent acquaintance with the objects they concern."

NEW as this doctrine is, we believe that most persons who care for works of art will subscribe heartily to it. There are some galleries where the labels, with their obtrusive display of information condescendingly adapted to the vulgar mind, almost destroy the pleasure of the visitor. It is not so well understood as it should be that to appreciate thoroughly a beautiful picture requires an effort of attention and imagination on the part of the beholder, which should be as little disturbed as possible by inscriptions in large black letters, giving data of historical and biographical interest only. No one, for instance, receives any deeper impression from Millet's noble picture of peasants picking up potatoes in the Boston galleries by being loudly told when the painter was born and died, where he lived, or what school he belonged to, and it is quite possible to lessen the benefit which he might derive from it by thrusting upon him these facts, which are quite irrelevant to the impression which the picture was intended to convey. It is true that there is a class of modern artists to whom inscriptions are indispensable. What would the Grosvenor Gallery

be, for example, without such legends as "Love is Sweet!" to explain the conduct of the disagreeable-looking female who seems to be having a fit over a piece of blue paper; or a long quotation from Tennyson, about Sir Lancelot, or King Arthur, to give interest to what otherwise would appear to be simply an ill-drawn study of a cockney model decked out in tin armor; and, indeed, it may be said of modern British art generally that it strives after second-hand effects, depending, usually, more on recalling to the spectator's mind the impressions that he has already received from some work of literary art than on conveying to him directly a new impression from the mind of the artist. The difference between the two things is more important than might at first appear, for every art has its limitations, and for an artist to treat painting and sculpture simply as a means of illustrating some one else's ideas, instead of his own, is to tie his art with clogs on both feet. In our day, when every one understands literary art, and few can appreciate pictorial art, the temptation to help out the latter with the former is strong, and ought to be resisted; and Mr. Gilman's idea that the pictorial impression of works of art exhibited in galleries should be protected from interference, is not only valuable to students and the public, but may have great influence on the development of art itself.

THE Regents of the Indiana Soldiers' and Sailors' Monument have taken a step which deserves imitation. It will be remembered that the design for the monument itself, by Mr. Bruno Schmitz, now of Berlin, was selected in a competition quite notable for its fairness, and for the interest of the profession in it. The work is not yet complete, but it has advanced far enough to allow some of the sculptured groups to be placed on it, and others are to be added. As those already in place have been criticised by artists, who, it must be confessed, are, in this country, somewhat disposed to criticism, the Regents have determined to take a sort of popular vote on the designs for the remaining groups, by sending photographs of the models which have been submitted to the principal cities and towns of Indiana, for public exhibition, inviting, at the same time, observations in regard to them from persons interested. Although the Regents do not abandon their control over the choice, it is said that they will be guided, to a great extent, by the public verdict.

IT need hardly be observed that this sort of submission of artistic matters to popular vote, although it has been common in the most artistic countries in Europe for centuries, is new here, where such control as is exercised over the design of public monuments is generally placed in the hands of "Art Commissions," or similar bodies of persons assumed to possess superior intelligence in artistic matters. We have before pointed out that, while some enlightened control over public art is undoubtedly desirable, the practice of handing such control over to Art Commissions involves great danger to the artistic development of the country. In something the same way that sacerdotalism destroys religion, the control of artistic matters by any clique, official or otherwise, destroys public interest in them, at the same time that it chills the sensitive and timid artists, who are, usually, just the ones whom it is most desirable to encourage. Whether the public criticism that the Indiana Regents will get will be of any value or not is of little importance, the main thing being to interest the community at large, and to encourage artists to try to do the same; but we are inclined to think that it will be worth more than is generally imagined. In one of the letters to the Boston *Transcript* about the labelling of objects in the Museum of Fine-Arts, the writer, pleading for the attachment of explanatory descriptions to works of painting and sculpture, illustrates her argument by saying that she once took an ignorant boy to see French's Milmore monument, known as "Death and the Sculptor." On asking the youth what he supposed to be the meaning of the group, he replied: "The man is nailing the angel's hand to the wall." The correspondent of the *Transcript* finds in this incident a reason for "illuminating," by means of descriptive labels, the intellects of the unlearned in regard to things which "to the trained mind" have "a perfectly obvious meaning." The force of this inference,

as applied to the labelling of pictures, we need not here discuss, but it has an important bearing on the value of lay criticism, of which the boy's innocent mistake was a good and forcible example. Mrs. Mead says that the trained mind finds a perfectly obvious meaning in French's group, but a moment's consideration will show that this is simply because the "trained mind," having seen thousands of representations more or less similar, and having heard or read the explanations of them, has learned what they are intended for, and has in this way unconsciously acquired a knowledge of a great number of conventional signs, by the help of which it interprets things which the untrained mind misunderstands. If art were a matter of symbols and conventions which none but the initiate could comprehend, the theory that trained minds were necessary to understand it would be defensible, but it is not, and the danger of making it so is one of the principal reasons for caution in putting the control of public art in the hands of persons familiar with current artistic conventions. In the case of the Milmore monument, the boy's mistake, although a more instructed person would not have made it, pointed to a real defect in the sculpture, for no work of art can be called perfect the intention of which any person could interpret wrongly. The people of this generation understand literary art so well, and graphic art so imperfectly, that points of this kind may often be illustrated by literary parallels; and we might ask, taking for example the scene of the death of Paul Dombey, whether Dickens's art would have been perfect if there were any uncertainty as to whether Paul was leaving this world forever, or only going to sleep, or if a foot-note were necessary to explain that Florence cried from mental pain, and not from the toothache. No one with ordinary sensibilities needs an Art Commission to tell him where to cry over Dombey and Son, or to point out the proper place for a thrill in the Messiah, or the Ninth Symphony; and the sooner we find means to submit the other arts to popular judgment, the better it will be for the arts as well as the public.

AMERICANS who intend to visit the Paris Exposition next year will be glad to know that the Pavilion of the United States has been assigned a very favorable situation in the Exposition grounds, on the Quai d'Orsay, on the south side of the Seine, and very near the Invalides. The building has a slight resemblance to the Administration Building at Chicago, being square in plan, and covered with a dome one hundred and seventy feet high. The central rotunda, which is open from the ground to the top of the dome, forms the principal feature, all the rooms being disposed around it, and opening either from it or from galleries surrounding it at different levels. On the ground-floor will be a "resting-room" for ladies, at the right of the entrance; one for gentlemen on the left; and a "conversation-room," common to ladies and gentlemen, in front. On the second story are small rooms assigned to the different States, and opening on a gallery; in the third story are the offices of the Commissioner-General, and the fourth story contains more rooms for States. The arrangement combines, we might say, the monumental with the inexpensive very cleverly; and, although the little parlors, which are only about thirteen feet wide, and thirty-five feet long, will hold but a small fraction of the Americans who would probably like to use them occasionally, those who find them too crowded will find consolation in observing that, on a small site, the building being only about eighty feet square on the ground, Mr. Coolidge has been able to contrive a structure which will be dignified and conspicuous, even among the enormous masses of the Exposition buildings. To add to its artistic effect, the United States pavilion will be adorned on the outside with sculpture, George Washington and President McKinley being the subjects of the two most important works, while the interior of the rotunda will be decorated with historical paintings, in the style, it is to be hoped, of those in the Congressional Library at Washington.

TO illustrate the difficulty of the problem imposed upon Mr. Coolidge, and to appreciate the success with which he has solved it, architects must consider that, not only was it necessary to make the United States building small on the ground, smaller even than that representing the principality of Monaco, and less than one-third the size of the Mexican pavilion, but the building, like most of the others on the Quai d'Orsay, was required to stand over a double-track railroad,

which could not be interfered with, even for temporary exigencies of construction. Moreover, as a matter of design, it was necessary to devise something which would be at once conspicuous and dignified, and in decent harmony with the Turkish building, which immediately adjoins it, the Austrian, which nearly touches it on the other side, and the Italian pavilion, which is a much larger structure just beyond.

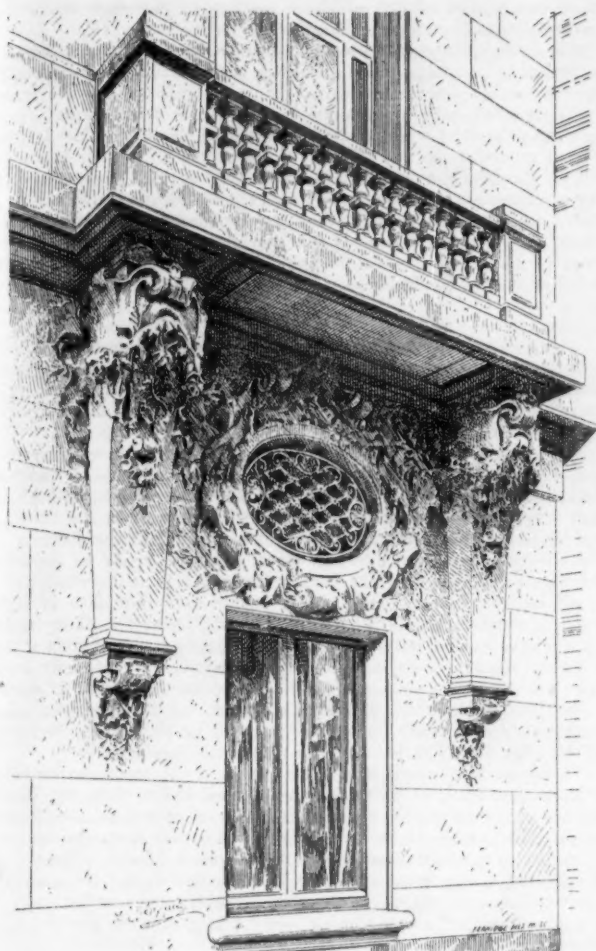
AMONG other items of news in connection with the Paris Exposition of next year, it is announced that the medal for awards is to be designed by M. Chaplain, and that the same artist, with MM. Roty and Dupuis, has been commissioned to prepare sketches for the new postage-stamp to be issued when the exhibition opens. M. Roty has also to design a tablet, commemorative of the Exposition, to be placed, presumably, on one of the permanent buildings, probably one of the Fine-Art Palaces.

THE Government of Greece has proposed to the Parliament of the Kingdom some new laws in regard to archaeological exploration which, if adopted, will have an important effect upon investigations in that country. Under the present law, the exportation of ancient works of art from Greece is absolutely forbidden, yet an extensive trade is carried on almost openly in such objects, and it is said that some of the Athenian dealers will undertake to deliver anywhere in Europe almost every variety of Grecian antiquities. Although the excavations carried on with official sanction are guarded by soldiers, the peasants often, in collusion with the guards, dig at night, and secure in this way choice specimens, which they sell to the Athenian dealers. Not long ago, the directors of the Austrian explorations at Lusci, in northwestern Arcadia, who had been disappointed in the number of bronze and terracotta objects which they found on a site which had been known to be very rich, discovered that the whole tract had been dug over, some months before, by the inhabitants of a village in the neighborhood, under the direction of one of the military guards, and that fine collections of bronzes were to be seen in some of the cottages of the village, from which, in all probability, they would be sent, later, out of the country. With a view to the suppression of this evasion of the law, which must result in the loss to Greece of some of its most precious treasures, the new Government bill provides that all objects of antiquity shall be submitted to official examination, and that, while the owner of the land on which such objects are found shall receive from the Government half the value, as appraised by an impartial commission, of works which the Government desires to keep, those determined to be unsuitable, or not needed, for the Greek museums, shall be returned to the owner of the ground in which they were discovered, who may then dispose of them as he chooses. This measure, while it would retain in the country the best works of art, and all novelties of historical importance, would allow of the legitimate enrichment of foreign museums with objects not needed in Greece, and should, in consequence, promote the interest both of foreign collectors and the native owners, both of whom place themselves, in illegal transactions, at the mercy of any unscrupulous middle-man who may choose to use his position to rob both.

THE old story about the leakage of electricity from the Brooklyn Rapid Transit Company's wires into the ground, particularly over the Brooklyn suspension bridge, has been revised, and is, this time, reinforced by an opinion from the electrical expert of the New York Board of Railroad Commissioners, declaring that his investigations have shown the existence of electrical currents in the ground, particularly near the structure of the Manhattan Elevated Railway, and advising that this company should be compelled to put its structure into such condition that there will nowhere be a difference in potential between it and other conductors in the ground of more than one volt. The engineers of the Manhattan Railway Company say, not without reason, that the best way to prevent their structure from being charged with electricity would be to restrain the Brooklyn Rapid Transit Company from discharging electricity into it; and it certainly seems rather hard to compel the railway company to keep its structure free, within a certain limit, from electricity, without giving it any means of controlling, or even of knowing, the quantity which other people will unload upon it from time to time.

THE SAFETY OF THEATRE AUDIENCES.¹—II.

3. MEASURES TO PROTECT THE AUDIENCE FROM FIRE AND SMOKE.

Balcony on the Rue Galilee, Paris. From *L'Architecture*.

WE have now discussed two principal safety-measures; namely, first, the exits and their proper arrangement to enable an audience to make their safe escape under all circumstances, and, secondly, measures tending to prevent an outbreak of fire. We must now point out two important further measures, which have for their object the protection of the audience, in case of an actual outbreak of fire, from both the fire or the flames and from the smoke and fire-gases incidental to every theatre-fire. Dr. Brouardel has given a very good description of what happens when a fire breaks out on the stage of a theatre. In the majority of cases the fire originates from stage-decorations catching fire, and, owing to the inflammable nature of the material usually adopted for them, large volumes of a thick smoke are at once generated, which contain both carbonic acid and carbonic oxide. The flames, the fire-gases and the smoke at once jump from the stage into the auditorium, particularly into the upper galleries, and within a very few minutes, incredible as it may seem, their deadly work is accomplished, and hundreds of people may be killed, partly by the heat and the flames of the conflagration, partly by the deadly gases which render respiration impossible after only three or four minutes. In many of the theatre-fire calamities recorded the deaths were due principally to suffocation by carbonic oxide, or by the inhalation of hot air. As proof of this assertion, Dr. Brouardel cites the fact that the dresses of many of the victims were found unscorched, dead bodies were found with the eyebrows and whiskers unscorched, and the bodies bore no marks of scalding, nor were they covered with blisters. Further proof that death was caused by carbonic-oxide poisoning was given by the analysis of the blood, which was found to contain carbonic oxide.

To guard against the dangers thus described, two important safety-measures have been devised, which can readily be introduced into every theatre-building, whether old or new. One of the measures consists in the use of a fireproof and smokeproof curtain in the proscenium-opening, to divide the auditorium from the stage; the other consists in providing large smoke-flues, outlets or ventilators in the roof of the stage.

The fire-wall dividing the stage-house from the auditorium would not constitute a protection in case of fire, owing to the large stage-opening. This should, therefore, be closed by a fireproof-curtain.

Numerous discussions have been held about the best material for such a curtain. In Continental cities, and also in England, preference has been given to iron curtains, either of wire, or of flat or, finally, of corrugated-iron. Flat iron curtains have not, in practice, proved sufficiently strong to resist the air-pressure from the stage in case of fire and they have sometimes buckled out in the center and thus proved ineffective. Wire curtains prevent the passing of flames from the stage into the auditorium, but permit the passage of the deadly smoke, and, moreover, they give the audience, already panic-stricken, a full view of the fire, and thereby increase the rush to the exits and the wild excitement. Corrugated-iron curtains are by far the best of all iron curtains, as they are strong and fire-resisting, and at the same time, if properly fastened and guided at the sides, they are smokeproof. They are, of course, heavy to handle, and must be well counterbalanced. The best iron fire-curtains are doubtless those operated by hydraulic machinery. The mechanism for the raising and lowering of the curtain must be perfect from a mechanical point-of-view; this mechanism should be operated from the level of the stage, and preferably also from another accessible point. Several cases are on record where iron fire-curtains became stuck in the grooves when it was attempted to lower them. Accidents have also happened by the curtain falling down on the stage. Flat iron curtains have been bent and thrown by the strong air-pressure due to the expansion of the air by the heat of the fire into the auditorium. A much more practical fire-curtain consists of thick and strong woven asbestos-cloth, well guided in iron guides at both sides of the proscenium-opening. Such curtains are used exclusively in modern American theatres, and it is believed by experts that they are sufficiently fire resisting to keep flames and smoke from the audience until all have escaped by the numerous exits which are provided in modern playhouses. The fire-curtain is kept lowered in the theatres until the beginning of the performance, or the rehearsals.

With proper fire-walls between stage and auditorium and no openings in these above the level of the stage, and with a good fire-curtain, a fire breaking out on the stage will successfully be confined to this point until the house has been emptied and all the persons saved.

The other, equally essential, requirement consists of large outlet-openings for the smoke provided in the roof over the stage. These openings may be formed of regular vent-flues or they may be special forms like sliding skylights, which are quickly opened in time of need or which operate automatically. It is important that the ventilators should be of sufficient area to remove the volumes of smoke generated by the burning of much inflammable scenery. Some regulations require their combined area to be one-tenth of the area of the stage. When they consist of flues, their lower ends may be closed by a light muslin or other substance easily destroyed when the flames first reach the stage-roof, or they may consist of automatic sliding ventilators like those of the new theatres of New York City. Finally, the flues may be closed by registers operated from the stage by ropes or other appliances.

The chief object for which they are intended is that there should be created a strong draught from the level of the stage-floor up to the roof, and away from the auditorium. This will afford a very good protection to the theatre-audience, certainly until they have had time to make their escape in safety.

Should there be in the ceiling of the auditorium a ventilator, possibly even assisted by the upward draught created by the now obsolete central chandelier, it is necessary that arrangements should be provided for closing the ceiling-ventilator to prevent a draught from the stage towards the ceiling-vent in the auditorium. In Europe, several theatres have arrangements by means of which it is possible to close by one movement this ventilator and simultaneously to open the stage-ventilators. The stage-roof being invariably higher than that of the auditorium, it is natural that the draught towards the stage should be the stronger, and that thereby the audience will be protected against smoke.

The diffusion of smoke from the burning scenery into the staircases both of the part of the house before the curtain and in the stage-house should be efficiently guarded against, hence the requirements that corridors, lobbies and staircases for the public as well as for the stage-people should be smoke-proof. Doors should be provided between the auditorium and the foyers and corridors, likewise doors between the sides of the stage and the dressing-rooms.

Inside staircases are bad, as the air in them may become full of smoke, whereas outside stairs can generally have windows which will secure fresh air. Light in the stairs is also of importance, and therefore we have mentioned elsewhere it is essential to have a separate system of lighting of the exits and corridors and stairs; this will prevent confusion in the darkness due to smoke, and often avert danger from the people using the exits. The maintenance of the auxiliary lights in the exits is a very important safety-measure which in itself will prevent direful confusion and a crush. These lights will also prove of great utility to the firemen when entering a burning building, and in some cases they may assist them in finding and rescuing persons who may have fainted or become overcome from the smoke.

The abolishment of the central gas-chandelier in theatres is a

¹A paper by Wm. Paul Gerhard, Civil Engineer, Consulting Engineer for Sanitary Works, Corresponding Member American Institute of Architects, Honorary Corresponding Member British Fire Prevention Committee, etc. Reprinted from the publications of the British Fire Prevention Committee. Copyrighted in the U. S. by the author, 1899. Continued from No. 1243, page 22.

great improvement, but the ceiling ventilation in the auditorium cannot so easily be dispensed with, as during the times when the curtain is lowered there would otherwise be no ventilation for the auditorium. It is either necessary to arrange the ventilation on the so-called downward system, or else there must be provided a perfectly-working appliance which will permit the ceiling-ventilator in the auditorium to be closed whenever the curtain is raised, or at least when fire breaks out on the stage.

Regarding the auxiliary lighting of exits, I would mention that where these consist of candles or oil-lamps they require to have lanterns encasing the lights, which must be provided with fresh air-drafts to keep the lights burning in case of smoke.

4. MEANS FOR THE PROTECTION OF THE STAGE-PERSONNEL.

It is not sufficient that we should protect the audience from fire and smoke; the people behind the curtain are deserving of the same consideration for their safety. Owing to the fact that fires in the majority of cases break out on the stage of the theatre, the performers and stage-hands would be immediately and directly exposed to the flames, the fire-gases and the smoke, unless proper means for their protection are provided.

Hence the dressing-rooms should be completely isolated from the stage-house, as well as from the auditorium; the part of the building in which they are located should be isolated by fire-walls, and by a wide fireproof-corridor. There should be wide, well-lighted fire and smoke proof staircases for the performers, one for each side of the stage. These should lead directly to the courts on each side of the theatre, or to outdoors where the building stands isolated. The dressing-rooms should have windows to the outer air, and these should never be guarded with iron bars or grilles, which would render escape through the windows impossible; additional iron fire-escapes at these windows are desirable. It is advisable not to put the dressing-rooms of the actors too high up above the stage-level, as this would necessitate a long route in case of an alarm. Regarding the size and the dimensions of the stage-exits and exit-doors, the same rules as for the audience should apply, and they should be proportioned to the largest number of persons which may be on the stage and behind the curtain generally.

For those workmen who are employed during the performance in the fly-galleries or the rigging-loft, there must be provided an iron staircase, or preferably one on each side of the stage.

The greatest safety for the stage-personnel is attained, of course, by adopting a better construction of the stage, and doing away with as much woodwork and inflammable scenery as possible, or at least, where the cost of an iron construction cannot be borne, the scenery and the woodwork should be rendered unflammable by an improved fireproof treatment by chemicals.

Greater safety is also attained by rendering the dresses and costumes non-inflammable by impregnation. Space forbids my going into details of the various processes now available.

The stage-ventilators and the automatic-sprinkler system will also be efficient means of protection, the former by removing the smoke, the latter by the chance which it offers to put out a fire among the scenic decorations in its incipency.

Greatest care should be exercised in the planning of the stage and its accessories, and the success of a well-organized stage management will depend chiefly upon it.

In the actors' dressing-rooms attention should be paid to numerous small details tending to give greater security. Here all woodwork should be rigidly excluded, all open gas-flames must be well protected and smoking in dressing-rooms should be absolutely prohibited. The rules of the theatre-management should emphasize the need of greatest care on the stage with lights, matches, lamps, torches, fireworks and the use of firearms.

A properly-installed electric-lighting system on the stage will form another efficient protection of the stage-personnel, as already explained elsewhere in this paper.

Finally, it will enhance the safety of the stage-personnel if the carpenters', painters' and tailors' workshops are completely isolated from the stage-building.

Panic may break out on the stage as well as in the auditorium, hence, besides provisions against smoke and fire, means to avert a panic should be contrived, or at least every possibility should be afforded to the performers and stage-hands to make their escape in safety and to avoid a crush or jam with its often fatal consequences.

5. MEANS FOR LOCALIZING AND RESTRICTING A FIRE ON THE STAGE.

If, notwithstanding all possible precautions a fire actually breaks out on the stage, all efforts should be concentrated toward restricting and confining the fire. Good planning and sound construction will do more towards accomplishing this desired result than any human efforts at fire-fighting. Let the stage-building be planned and built so as to be completely isolated, forming a fire-risk in itself, and half the battle may be said to be won. This is accomplished by the use of fire-walls surrounding the stage on all sides; again, the fireproof-curtain, discussed in a previous section, will render efficient service in localizing the fire.

The proscenium-wall should have as few openings communicating with the auditorium as possible, and these should be provided with fireproof doors, of oak, lined on both sides with tin, and possibly arranged to close automatically. Again, it should be mentioned

that the construction of the fire-curtain must be such that it will close at the sides and not permit the smoke or flames to pass through.

Proper roof-ventilators will assist in removing the smoke from the stage, but in case of fire, all doors leading to the stage should be instantly closed to avoid a draught.

Fire-extinguishing appliances and a well-organized fire-brigade composed of the stage-hands and stage-machinists will prove useful during the first outbreak of a fire. An automatic fire-alarm system, regularly tried and maintained in good order, will indirectly help in localizing the fire, by at once giving notice of the outbreak. Lastly, a good water-service and efficient fire-pressure at the fire-hydrants will be the means to confine and restrict a fire. All fire-extinguishing appliances are to be considered as chiefly useful during the first few moments after the outbreak, for as soon as the flames have begun to spread, these devices will prove powerless, and the building should be turned over to the quickly-summoned fire-department, while all efforts should be concentrated on saving human life.

6. MEANS FOR SAVING LIFE.

In cases where the fire has spread and gained much headway, it may, notwithstanding all precautions happen that the safe retreat of persons in the theatre is cut off by flames or smoke. Therefore, it is essential that every theatre should be provided with at least some means for saving life.

The outside fire-escapes belong, first of all, to these measures for safety. There should be provided, besides these, outside iron-ladders, built into the walls, connecting the various roofs, and which may serve not only as means of escape for persons in the burning building, but which will prove extremely useful to the firemen in their work. In this connection mention should again be made of the necessity of omitting any bars or iron-gratings at the windows.

All large cities, and many of the smaller ones, now have in their fire-department a regularly-trained corps of life-savers. They make use of light but strongly-built scaling-ladders to reach persons at the windows whose retreat by the regular stairs and exits may have been cut off. In connection with these scaling-ladders it is worth while mentioning that, in the erection of the building, provision should at once be made for window cornices or sills so moulded and of such dimensions as to be adapted to the scaling-ladders.

The life-saving corps also make use of life-lines, of canvas-belts with clutch-hooks, or portable rope-escapes, and of guns for firing the life-lines into windows. They likewise use asbestos-cloth chutes, or life-saving sacks of flexible canvas, which they carry up the ladders, fasten securely to windows, and by means of which persons in danger are readily rescued. Some fire-departments use the jumping-net or cloth, and while by no means without danger to the limbs, a jump from a window into the jumping-net may save the life of many a person.

The theatre-management should consider the advisability of providing for the building some of these means of saving life. Extension-ladders, scaling-ladders, possibly a chute, and some smoke-protectors should be kept ready for use in emergency cases in every theatre.

7. MEANS FOR FIGHTING OUTBREAKS OF FIRE.

Notwithstanding the assertion made in the first part of this paper, that the safety of the persons in a theatre is much more important than the safety of the building, it is necessary that every theatre should be provided with some means for fire-extinction, and particularly such as are useful in extinguishing fires in their incipency. As such fire-fighting appliances, I would mention first the automatic-sprinkler system on the stage. This includes rows of pipes with sprinkler-heads, placed so as to command and protect every square foot of the understage, the stage proper, the fly-galleries, the rigging-loft, the engine and boiler room, the dressing-rooms of the performers, etc. They should be supplied from one or several roof-tanks of generous capacity, or from pressure-tanks in the basement, and these tanks should not be used for any other purpose, and must be kept constantly filled so as to be in readiness when wanted. The tanks are usually supplied from a large fire-pump in the engine-room. In addition, outside fire-department connections for the sprinkler system must be provided. The same fire-pump should be connected with the fire stand-pipes, of which there should be in every theatre at least four lines, viz, one on each side of the stage and of the auditorium. Larger theatres and opera-houses require a greater number of stand-pipes. There should be fire-valves on the stand-pipes at each of the floors, and each valve should have fire-hose of suitable quality, and of sufficient length, connected with it, and kept ready for immediate use.

Beside this, there should be a large number of fire-pails, for these are even more useful than the fire-hydrants to put fires out when just started; also small hand-extinguishers, chemical extinguishers and large casks of water to refill the fire-pails.

There should be, on the stage, in the fly-galleries and in the rigging-loft, a full complement of fire-axes, picks, pole-hooks, brackets, saws, hatchets, crowbars, safety-lanterns, torches, or electric-candles, and an assortment of portable ladders, also some wet blankets.

There should be, in the stage-house, a general fire-alarm, operating automatically, and the theatre should be in telegraphic and telephonic communication with the nearest engine-house, with the police-station, with the fire-headquarters, each of these to have a separate and direct wire-connection with the theatre.

It has already been said that every theatre should have a fire-brigade composed of its stage-hands and men of the manager's staff; furthermore, during the performances there should be a special fire-watch, composed of experienced and trained firemen of the regular fire-department.

The management should order frequent inspections of all fire-extinguishing appliances; it should issue special rules regarding the non-use and the frequent filling of the fire-pails; it should provide an electric-float indicator from the roof-tanks, indicating in the engine-room and also in the manager's room how much water the tanks contain and when they are empty.

8. MEANS TO GUARD AGAINST PANIC.

All the measures discussed so far have had in view the contingency of an occurrence of fire and the prevention of fire-outbreaks. It was, however, explained that one of the gravest dangers to be feared was the occurrence of a panic among the audience, caused by an alarm of fire. The alarm of fire may be real, or else, as frequently happens, it may be only a false alarm; in either case a dangerous stampede, jam and crush may result. Moreover, it must not be overlooked that there are many causes or disturbances other than fire which may precipitate a panic. This something causing a panic may happen in the best-planned, best-equipped and most-safely constructed theatre just as well as in the most wretched and inflammable structure. It is of the greatest importance that everything which may tend to cause a panic should be avoided, as the result would usually prove as dangerous or fatal to the theatre-public and the artists as an actual outbreak of fire. The best system of fire-resisting construction, the best system of watching by trained firemen, the most careful inspection by experts and specialists cannot prevent the outbreak of a panic when there is only apparent, but no actual, danger.

It is well to study the possible causes of a panic not less than the causes of fires, for some of them, at least, may be avoided. Panics in theatres may originate either from imagined or suspected dangers—caused by malicious alarms, by misunderstandings, by fright, or by some cause trivial in itself, or else they arise from actually present and often visible dangers, fire, stroke of lightning, etc. The danger is aggravated by the fact now well known to many theatre-visitors that it requires but very few minutes in a burning building for the smoke and fire-gases to suffocate people. This explains the terror, the wild fright, the haste and confusion, the loss of both courage and presence-of-mind, the dangerous stampedes, the mad struggles at the exit-doors, the trampling to death and the jam following a panic. In such dire moments the instinct of self-preservation often drives people even to kill one another. Many of the older theatres have insufficient stairs, exits and passages, and the result is that feeble or frightened persons may, in case of a sudden rush, stumble or fall when pushed and cause those who follow them to fall over them.

To say that there are no measures which will effectively prevent a panic is not correct. In my judgment, much can be done to prevent dangerous panics by giving the audience a feeling of security, and this they are bound to get, at least in some measure, when they know that the theatre is well planned and that there are at all times available plenty of wide, free and unobstructed exits and fire-stairs, enabling the entire emptying of the theatre in less than four minutes; when they know and see that overcrowding and obstruction in the aisles are not tolerated, that the management does not sell a larger number of tickets of admittance than the theatre-license permits, that no standing-room or camp-chairs in the aisles are permitted; when they are kept informed of the systematic and periodic inspections, and are told that there are nightly fire-watches, particularly when dangerous spectacular plays are given, and that the attendants are instructed in their duties in case of fire and that there are frequent fire-drills. This feeling of comparative security is also fostered by the knowledge that there is a fireproof proscenium-curtain in actual use, that the stage-roof is provided with ventilating-skylights or smoke-flues, that there are well-built fire-walls separating the auditorium from the stage, and that the electric incandescent-light is used to light up the scenic decorations.

The best preventive of a panic is, doubtless, the knowledge that there are more than ample facilities for direct and quick egress from all parts of the house. Therefore, for panic not less than for fire, the theatre-exits and the clear planning are the two all-important requirements which must be fulfilled irrespective of all other safety-measures.

Other measures which the management may institute and which will surely be helpful are the printing of the exits on the theatre-programmes, the hanging-up of clearly-printed plans in the foyers and vestibules, showing the plan of the building and the nearest exits, the lettering of all exit-doors in large, easily-read letters, the nightly use of all exits, the maintenance of plenty of light in the exit passages, stairs and courts, and instructions to theatre-ushers about directing the audience to the nearest exits. Inasmuch as a sudden and unannounced darkening of the auditorium may scare nervous people and thus may precipitate a panic, it should not be practised except it is prominently announced either in the theatre-programme or from the stage.

A safety-measure which has been mentioned under a former heading, and which is also important to prevent panic, is to provide every theatre with lightning-rod protection.

CONCLUSION.

Summing-up what has been said in the preceding pages, the following are the principal measures in the interest of safety of the persons in a theatre-building, which should be carried out, irrespective of whether the theatre is a new or an old building:—

1. Free or isolated site.
2. Open courts on the sides of buildings located in a block.
3. Clear planning.
4. Plenty of wide, unobstructed exits; doors opening out; separate lighting of stairs, passages and exits.
5. Fire-walls between auditorium and stage, and between stage and dressing-rooms.
6. Fireproof curtain.
7. Stage smoke-flues or ventilators.
8. Electric incandescent-light in place of gas-light.
9. Impregnation of all woodwork, scenery, decoration and gauze dresses.
10. Fire-watch and inspections.
11. Lightning-rod protection.
12. Automatic-sprinkler system.
13. Maintenance of fire-extinguishing apparatus in readiness.
14. Means for instantly signalling outbreaks of fire.
15. Rules of management; control of theatres by municipality or building-department.
16. Fire-resisting construction.

A careful review of the numerous propositions made to secure the safety of theatre-audiences and the stage-personnel shows a tendency to lay altogether too much stress upon fireproof-construction. To Mr. Sachs, I believe, belongs the credit of having pointed out very clearly and conclusively that the relative order of importance should be somewhat changed, viz, good planning should come first, next efficient and constant watching, then careful and frequent inspections, and, lastly, fire-resisting construction. After all that I have said, it is not necessary for me to explain why fire-resisting construction is the least important of the four items, when we have in view the safety of the persons in the theatre.

Wherever theatre-regulations are enacted, the compliance with them should not be left to the voluntary choice of theatre-owners or managers, but should be made compulsory. The municipal building-department of every city should have the fullest possible power to examine the plans for all contemplated theatres, and also the plans of alterations intended to be made in existing theatres. These should either be altered to meet the requirements such as are outlined in this paper, or else they should be closed by the authorities.

It has been well said that "the problem of building a safe theatre is one where a combination of architectural and engineering talent is required. Each specialist, to solve his special problems, must take the technical resources of our age into account, and bring them to bear on the question."

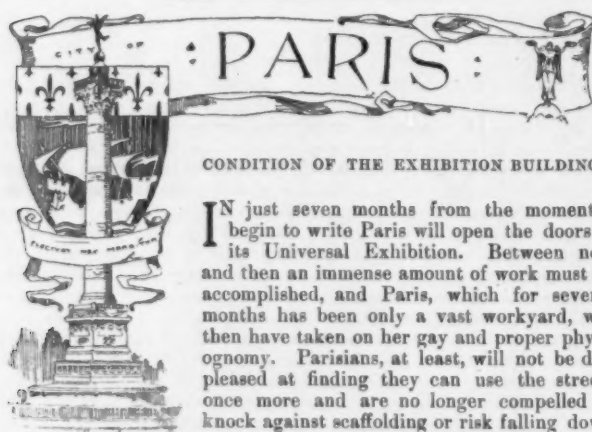
No other class of buildings bears so much evidence of the modern tendency to specialization. For the successful planning and designing of a modern theatre-building the architect should have associated with him a number of specialists or experts. The architect himself prepares the plan of the building and the design; he should have the general superintendence of the entire work, and should consult with, and direct, the other experts, so that a harmonious working together, so necessary to avoid clashes or mistakes, will result. The architect should also have charge of the interior arrangements and equipment, and he should plan in particular the decorative schemes of the auditorium, the ceiling, the proscenium-boxes, the foyers and vestibules, the entrances and façades, the seating-arrangements, the lighting, the sight-lines, the acoustics, etc.

The services of the constructing-engineer are required in difficult foundations, in the iron-construction, the roof-construction and for the design and details of the iron fire-curtain (where this is used). A heating and ventilating engineer should design and superintend the heating-system, the steam-boiler and the power-plant, and the engines for running the exhaust-fans or blowers for the ventilation of the theatre. An hydraulic-engineer will have charge of the water-supply system for house-use as well as for fire-protection; he will lay out the automatic-sprinkler system, provide the fire-pump, the fire-hydrants and fire-valves, and possibly the hydraulic-presses for the stage-machinery. A sanitary expert will design and carry out the entire drainage-system of the building and the plumbing arrangements; he should lay out the arrangement of the public and other toilet-rooms, and in general look after the ventilation and sanitation in the theatre. A gas-expert will specify and plan the gas-service and lighting-system, the details of the stage gas-table, and provide the gas-light fixtures. An electrical expert will have under him the entire electric-plant, the dynamos and switches, the wiring and lighting system, the fixtures, and possibly the electric stage-machinery. A chemist finally, will provide and advise on the fireproof treatment of the woodwork on the stage, on the chemical impregnation of the canvas decorations and scenery, the draperies, stage-furniture and of the costumes.

The higher conception of the function of the stage is that it should be educational in character, that it should form a moral and intellectual recreation for the people. A theatre ought to be a place where one goes to find motives for ideal thinking and where one's

thoughts are elevated above the realm of the commonplace everyday happenings. A great deal of real enjoyment may be derived from a good performance, for many matters combine to make a play at once attractive and educating, such as the sound and modulation of the human voice heard in declamation or in song; the idealized stage-figures clad in picturesque or historically-correct costumes; the ever-varying stage-settings which attract and please the eye; the rich blending of colors, the brilliant illumination of the stage-sceneries; all forming a rare combination of attractions in the field of fine-arts: painting, sculpture, architecture, poetry, music and rhythmic motion.

But in order to derive real enjoyment and pleasure from a stage-performance, certain requirements for the audience must necessarily be fulfilled. The people in the audience must be able to see and hear well, they must be seated comfortably, they require pure air, freedom from draughts, a moderate heat in winter, and the cooling of the auditorium in summer time; there must also be no bad odors of any kind, no dust, no disease-germs lurking about. Finally, most important of all, the audience must feel safe and secure beyond all doubt from the dangers of fire, smoke and a panic, and the players must be made equally safe. The last-named consideration, besides which all others dwindle into comparative insignificance, is of paramount importance, and I hope my paper has emphasized this fact in a sufficiently clear manner.



CONDITION OF THE EXHIBITION BUILDINGS.

IN just seven months from the moment I begin to write Paris will open the doors of its Universal Exhibition. Between now and then an immense amount of work must be accomplished, and Paris, which for several months has been only a vast workyard, will then have taken on her gay and proper physiognomy. Parisians, at least, will not be displeased at finding they can use the streets once more and are no longer compelled to knock against scaffolding or risk falling down precipices. Paris is making her toilet, Paris is upside down. Almost all the tramway lines are being changed — tearing up the pavements and barricading the streets against traffic. The streets above the line of the Metropolitan Railway are here and there interrupted by yawning openings which give access to the subterranean galleries. The quais upon the left bank are one vast workyard, first, because of the work on the Orleans Railway and the new monumental station fronting the Garden of the Tuileries, and next because of the work on the Exhibition itself.

Upon the right bank, the Lyons Railway Station, wholly rebuilt, rears its immense scaffolds; and in front, the old Mazas Prison, recently demolished, is being replaced with a row of apartment-houses. On all sides we are preparing to receive our guests and to afford them easy means of circulation. In order to lodge them, new hotels are being built, and visitors who do not have to consider cost will be able to find a place in the Palace-Hôtel des Champs-Élysées, which covers an area of 3,000 square metres, and will contain all possible sumptuosities. Later I shall certainly have to revert to this luxurious structure — and a very artistic one it is, too, which does great honor to its architect, M. Chedanne. Of a more modest type, the Société des Wagons-Lits is just finishing, close to the Exhibition grounds, an immense hotel where travellers may be lodged and fed for a low price, and carried from and to the railway-stations. The idea is a very practical one. Another which is equally so is the fact that the structure has so been studied by its architect, M. Dauvergne, that after the Exhibition closes it can easily be transformed into an apartment-house and divided into apartments. And finally, Paris represents the aspect of an enormous ant-hill in the course of construction, to the great despair of people in a hurry, who find it very difficult to find free passageways.

As ever, the public follows with interest the works going on at the Exhibition grounds, and is much disquieted at noting how much there is yet to do. Surely the task is hard, but the present state of the work is sufficiently advanced to allow it to be affirmed that the Exhibition will open upon the stated date, April 15, 1900.

The Palais des Champs Élysées, in all that concerns masonry, carving and sculpture, is far in advance of expectations; but the metalwork is several weeks late. This delay is due to the fact that the great trusses of the Grand Palais have required serious studies which have had to be continued much longer than was thought necessary at first. The great staircase also had to be studied and the smallest of its details determined before the metal-work was ordered. Now all these portions of the work are being made ready and the architects promise to have the palace ready in the month of December. The credits granted for the construction of these two buildings reached the sum of 21,000,000 francs, but the authorities counted on certain rebates which have not been obtained and these figures will in all probability be exceeded.

The Pont Alexandre III will surely be finished before the opening of the Exhibition. Several weeks ago it was completely freed from the foot-bridge which was used for the erection of the arches, and which many of the profane took for the bridge itself. The pylons which decorate the entrance to the bridge will soon be finished and there only remains now to finish the purely decorative portions.

On the Champ de Mars and the Esplanade des Invalides, the palaces which are to shelter the different industries are being reared with rapidity. A large portion is already covered-in and glazed, and the façades in staff allow one to comprehend their very interesting and decorative silhouettes.

The Palace of Civil Engineering, on the Champ de Mars, and the one which fronts the Hôtel des Invalides, on the Esplanade, are decorated with great sculptured friezes, which are already almost entirely in place. The credits granted for the buildings on the Esplanade des Invalides were 5,570,000 francs, but the original schemes have undergone certain additions which have increased the cost by about 850,000 francs. In the same way, on the Champ de Mars, the original appropriation of 21,500,000 francs will be exceeded. The administration counted on receiving certain rebates which the rise in price of structural material and the mounting rate of wages have not allowed to be realized. To be perfectly fair, it must be acknowledged that on the Champ de Mars the Palace of Electricity and the Château d'Eau, which constitute the decoration for the background in front of the Machinery Gallery, are notably more behindhand than the others. In this quarter there is no time to be lost, and it is to be hoped that the winter may not be so severe as seriously to retard the work. Along the quais, between the Pont des Invalides and the Pont de l'Alma, the foreign pavilions are being rapidly built.

The United States pavilion will be surmounted by a dome 20 metres in diameter and measuring to its summit 51 metres from the floor of the pavilion. This pavilion has given cause for numerous negotiations. The American commissioners, Mr. Peck and Mr. Woodward, asked leave to erect a small bridge across the Seine in front of their national pavilion. The Exposition Commissariat raised difficulties, alleging that this bridge would injure the effect of the terrace which it was intended to build in front of all the foreign pavilions. But it seems that these obstacles were not insurmountable and the ministry is likely to accord a favorable answer. Another idea which has an attractively patriotic air was brought forward by Mr. Woodward, Assistant Commissary-General, last Fourth of July, at the banquet of the American Chamber of Commerce. It is known that on the Fourth of July, 1900, it is intended to unveil in Paris a monument to the memory of General Lafayette, offered by the American Government. It is, as Mr. Woodward said in his speech at the banquet last Fourth of July, "in the very heart of the City of Paris, in a spot consecrated by the memory of former times, within the historic bounds of the Palace of the Louvre, that the United States will erect a statue of Lafayette." Now on the day of inauguration, at the proper moment, by means of the cable, the President of the United States, in his office in the White House at Washington, will cause to be displayed from the top of the Eiffel Tower, and far above the City of Paris, the largest American flag which has ever been made. The American exhibit will not be limited to the national pavilion. It will have, like other nations, the space which is necessary in the foreign sections of the several palaces.

On the Trocadéro, the Colonial Exhibition is rearing a series of palaces and exotic pavilions which are charmingly fantastic. Also on the Trocadéro is found the Russian pavilion which is being built by Russian mechanics, whose tented camp is at the moment very picturesque.

Finally, on every side, about and in the immediate vicinity of the Exhibition, are being reared those structures which constitute the inevitable and necessary "attractions." First, there is the very curious and learned reconstruction of Old Paris, by the architect, M. Benouville, which occupies on the banks of the Seine and on piles over the river an area of 6,000 metres by 260 metres. It is a very interesting architectural restoration of the sixteenth and seventeenth centuries, divided into three different groups: First, the quarter of the schools (the Porte St. Michel, the tower of the Louvre and the Church of St. Julien des Ménétriers); second, the central portion, over which rears itself the Chambre des Comptes of the sixteenth century, which disappeared during the conflagration of 1737; third, the Pont au Change, dominated by some of the buildings of the Grand Châtelet, the palace with its grand hall, and the staircase of the St. Chapelle (seventeenth century), the Rue de la Foire St. Laurent, and the tower of the archbishop's palace.

The learned and architectonic side of this restoration, already finished and most picturesque in form, will surely not have much effect on half the visitors to the Exhibition, who will only remember that in "Old Paris" they found the bars and cafés, the restaurants and the theatres. On another side, near the Machinery Gallery, is building the Swiss village, with its chalets and farm-houses on real mountains; that is to say, on fictitious mountains built by carpenters but clothed with real earth, in which real trees and shrubs are planted. For this corner of the Exhibition a sure success may be predicted. Then, there is the great wheel, which already for several months past has been revolving for Parisians, who don't seem to be much inclined to patronize it for the present. Then there is the "Tour around the World," by the painter Dumoulin, which also will

certainly be a great success. This is an immense panorama, showing all the countries in the world, of which the foregrounds will be animated; that is to say, made lifelike by natives of each of the countries represented, who will give the public a notion as to the manners and customs of these countries. In the mareorama of M. Hugo d'Alési one can procure the complete illusion of a sea-voyage, for one will see unrolling before his eyes the seacoasts of different countries without any more serious danger than the liability to seasickness, — which may be for him a very real experience and so complete the desired illusion. There is no need of speaking of the numerous theatres which will find space on the banks of the Seine near the Champs Elysées, which will make this portion of the Exhibition the most truly Parisian of all.

But a Universal Exhibition addresses itself also to visitors of a serious turn of mind, who come to take note of the march of progress in Art, Industry and Science. For such visitors as these the committees of installation are earnestly working, and on this side there is no time to be lost. The exhibitors are many, too many, in fact, and it seems impossible to accommodate them all, even by reducing the spaces which they have demanded. It is true, however, that the bills they must pay have not yet been sent to them, and it is these bills which have always decided a certain number of them to give up their intention. But there is no need of fearing that there will be too many withdrawals, considering the great number of entries, for there will certainly be enough to occupy all the space. In most of the classes the plans of installation are on the point of being definitely fixed. In a general way, the architects are searching, in the matter of windows and decorations, for a modern note which will differ from that prevailing in 1889. The exterior appearance of the palaces will also be very different. In 1889, the architects made use of uncovered metallic framework filled with bricks, stucco or ceramic-work. This time the ironwork will hardly be uncovered at all, save in the interior galleries. The exteriors will accuse the architectural decorative compositions, which have great movement, with very varied silhouettes, but generally indicating a stone construction. The buildings will be white, and as all the palaces will have an upper story, the aspect will be, from every point-of-view, very different from 1889.

Now we are entering on the period for the liveliest work. We feel that the date of opening draws near, and it is earnestly to be hoped that political disturbances may not arise and put a stop to the last strokes. Justice should be done to our spirit of perseverance, which, in the midst of the effervescence caused by our unfortunate Dreyfus affair, has not allowed those who are laboring for our Universal Exhibition to halt for a single moment. In this particular spot there has never been a moment's hesitation or a useless discussion. "The affair" had no existence here; it was never talked about. Here they had only a single idea, a single end to achieve with calmness and confidence — the Exhibition of 1900.



ARCHITECT'S CHARGES FOR ABANDONED WORK.

ABANDONED Scheme. — At the Glamorganshire Assizes, at Swansea, on August 7, Mr. Justice Kennedy and a special jury had before them an action, *Wills vs. Chairman and Governors of the Swansea Technical and Intermediate School*, in which Mr. H. W. Wills, architect, claimed from the defendants certain fees for professional services in connection with proposed new buildings for the Swansea Technical and Intermediate School. According to the evidence, as reported in the *South Wales Daily Post* of August 8, the plaintiff was employed to prepare plans, etc., for the proposed new schools, his remuneration to be at the rate of 4 per cent on the sum expended, and 1 per cent for taking out quantities. The plans, as prepared in accordance with the instructions, were approved and adopted by the defendants. The estimated cost of the buildings amounted to £15,500, and the lowest tender was £15,516. The Charity Commissioners, to whom the scheme was submitted, refused their consent to it, on the ground that there must be two buildings, one for technical and one for intermediate education. Mr. Wills was then requested to make new plans and invite fresh tenders for two new buildings. This was done, and tenders were obtained — £4,739 for the intermediate building and £8,162 for the technical, making a total of £12,900. The new schemes were submitted to, and passed by, the Charity Commissioners and the Local Government Board. The defendants then became aware that certain clauses in their leases made it impossible for them to carry out the proposed buildings, and the schemes had consequently to be abandoned. There was a question as to the amount of the remuneration originally agreed upon, the plaintiff claiming £692 4s. 4d. in the event of his fees being found to have been fixed at 5 per cent commission and 1½ on the bills of quantities; or £551 2s. 1d. should it appear that the agreement was 4 per cent and 1 per cent respectively. The sum of £250 had been paid by the defendants before the action was brought, and the balance now sued for was £442 2s. 4d., or £301 12s. 1d., according to the finding as to the exact agreement between the parties. The Judge intimated during the hearing that on the evidence the claim must be limited to the lesser sum.

Mr. Edwin Seward, giving evidence as to the charges usual in the profession, stated that the charges for several of the items were rather below than above the regular charges. He had examined the drawings, etc., prepared by the plaintiff, and found that the work had been very ably done. Regarding the question of quantities, another architect-witness stated that the labor involved was practically equal to taking out quantities twice over.

For the defence it was contended that the claim was excessive. In the first place Mr. Wills had been told that the cost must be limited to £8,000; his plans, however, would have involved an expenditure of over £15,000.¹ The claim for the second new scheme was unreasonable; it was really one scheme, which had to be modified. Under the circumstances, as the building-scheme had had to be abandoned, the £250 already paid was ample remuneration.

His Lordship said he could not see what possible reason there was for defendants declining to pay, at any rate for the first set of plans. How could they blame the architect for producing an expensive scheme when they themselves approved of it and sent it to the Charity Commissioners? With regard to the second set, possibly they might consider that the alterations were not so great as to justify the whole claim. It was for the jury to consider whether they would award less than was claimed or anything at all for those plans.

The jury, without leaving the box, found for the plaintiff in the amount claimed, viz, £551 12s. 1d., less the £250 already paid on account. Judgment was accordingly entered for that sum, with costs.



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

NEWTON CENTRE METHODIST CHURCH, NEWTON CENTRE, MASS.
MESSRS. ANDREWS, JAMES & RANTOUL, ARCHITECTS, BOSTON, MASS.

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

ALTAR AND REREDOS FOR GRACE CHURCH, BALTIMORE, MD.
MR. HENRY M. CONGDON, ARCHITECT, NEW YORK, N. Y.

THIS structure, built of colored marbles, the principal portion being of white Echallon, the shafts of the altar being of St. Beaume, and those of the reredos of St. Sylvester marble, the bas-reliefs and statues of Kehlheimer stone from Bavaria, a stone similar to Caen, but much closer in grain and harder, as yet not much known in this country. The subjects of the altar reliefs are the "Sacrifice of Noah"; the "Offering of Melchizedek," and the "Sacrifice of Abraham"; that of the large relief in the reredos being the "Institution of the Holy Eucharist," flanked by the statues of "St. John the Baptist" and "St. Luke the Evangelist." Models for all the ornamental carving were made by the son of the architect, Mr. Herbert Wheaton Congdon. The work was done by the firm of Messrs. Peter Theis' Sons, of New York, and the sculpture by Mr. Joseph Sibbel, of the same city.

GOLD MEDAL DESIGN FOR A UNIVERSITY CLUB. DESIGNED BY
MR. ALBERT H. SPAHR.

This plate will, at the same time, serve to show the work accomplished under the training of the Architectural Department of the Massachusetts Institute of Technology, and the character of the design encouraged by the Society of Beaux-Arts Architects who awarded its gold medal to this design a couple of years since.

THE THEATRE: SAILORS' SNUG HARBOR, STATEN ISLAND, N. Y.
MR. R. W. GIBSON, ARCHITECT, NEW YORK, N. Y.

[The following named illustration may be found by reference to our advertising pages.]

THE NEW YORK "BOX-STOOP" — V. NO. 26 EAST 57TH ST.

[Additional Illustrations in the International Edition.]

INTERIOR OF THE CHAPEL: SAILORS' SNUG HARBOR, STATEN ISLAND, N. Y. MR. R. W. GIBSON, ARCHITECT, NEW YORK, N. Y.

[Gelatine Print.]

¹Concerning this point, Mr. Wills writes: "Some very cardinal points are omitted from the published reports of the case, such as my explanation how the original estimate, £10,500, was increased to the actual tender, £15,516. I explained that when levels were taken and trial holes sunk, the cubic contents of the building were increased so materially that I had to report to the Governing Body that the cost would be at least £13,500."

PORCH OF PALACE OF THE LATE EMPEROR WILLIAM I, UNTER DEN LINDEN, BERLIN, PRUSSIA. KARL FERDINAND LANGHAUS, ARCHITECT.

[Gelatin Print.]

THIS palatial edifice, which for over fifty years preceding the late Emperor William's death served as the home of this potentate, is situated at the entrance of the far-famed avenue, "Unter den Linden," at Berlin, in close proximity to the University, the Royal Opera, and other notable buildings. It was erected between 1834 and 1836 for William, then Prince of Prussia, a plain soldier without any aspiration to the throne of the Prussian Kingdom, and his young consort, Princess Augusta of Saxe-Weimar, from designs by Herr Karl Ferdinand Langhaus, Jr. (1781-1869), the son of the architect of the well-known Doric triumphal gate, called the "Brandenburger Thor," at the entrance of the "Thiergarten." It is of interest to note that, while the great J. G. Schinkel, who was the acknowledged head of German architects, also submitted to his exalted patron several fanciful designs for a princely palace, Prince William, with that characteristic modesty and soldierlike simplicity that remained true to him through all his life, gave his preference to the design of the younger Langhaus, which was marked by a severe simplicity and nobility of proportions as well as of detail.

The two-storied structure, having a sandstone-front 200 feet in length, equally divided up between thirteen axes, is L-shaped in plan, and extends about two hundred feet back. On the open side of the L, the front of the palace is flanked by the old Royal Library building, standing at right angles with the former, thus forming a closed courtyard. The Emperor's Palace is generally considered one of the best examples of the severe Classicist tradition of the early Berlin school of this century. Although the shape of the building-lot was ill adapted for a building of this character, the planning is carried through with rare skill, and with a fine feeling for architectural effect, attained by well-chosen contrasts. The apartments intended for festive and representative purposes occupy the entire second story. The modestly-appointed suite of living-rooms of the late Emperor was located on the first floor, to the left of the central entrance, the end-room being his favorite sitting-room and study. It was from this end-window that Emperor William frequently used to show himself to the gaze of his devoted Berliners.

Regarding the architect, Herr Langhaus, Jr., it may be stated that on one other occasion in his life he had the good fortune to make a decided hit that secured lasting fame to his name. At the unusual age of eighty-five years, standing almost at the brink of the grave, he designed and built the beautiful Municipal Opera-house at Leipzig, one of the most successful Renaissance structures of its class, occupying a commanding site on the fine "Augustus-platz." Every tourist who visits this fast-growing city, with its more than four hundred thousand population, is impressed with the beauty of this composition, especially so with the charm of originality breathed by the rear-façade with its terraces and pergolas overlooking the small but pretty lake. The Leipzig Opera was completed in 1868, just one year before the master's death.

ENTRANCE TO CHAPTER-HOUSE: BRISTOL CATHEDRAL.



[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.]

COMMISSION FOR DISCARDED PLANS.

DETROIT, MICH., October 18, 1899.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—E. K., of Binghamton, N. Y., asks for light on a case which he states in your last issue, and you might refer him to a decision of the Supreme Court of New York State in the case of *Beardsley vs. Beyer*, rendered, I think, in 1898.

Yours respectfully, PENINSULAR.



THE SEA-WALL AT BARROW, ENG.—The sea-wall which is to be constructed at Barrow, Eng., will be valuable in a way that is not usually associated with such works. The Hodbarrow iron-mines are of great importance, the ore ranking first in quality, so far as English hematite is concerned, and being of wonderfully uniform quality. A decade ago a wall was made to keep the sea from the workings of a mine, and it is now proposed to make an embankment 6,760 yards long, to enclose about 170 acres of land, under which the mine will be extended, the existence of ore having been demonstrated under that area. It is estimated that the work will cost nearly \$3,000,000, but it will add much to the wealth of the already rich company of Hodbarrow.—*Boston Transcript*.

BOX AND COX OUTDONE.—A discovery of the Allegheny Bureau of Charities has aroused the authorities of that city. At one boarding-house of Hungarians in the Ninth Ward of the city were found sixty persons who cooked, ate and slept in three small rooms. The men have different hours at work, and five beds accommodate them all, turn about. This condition explains a number of diseases that prevail in the tenements.—*Philadelphia Press*.

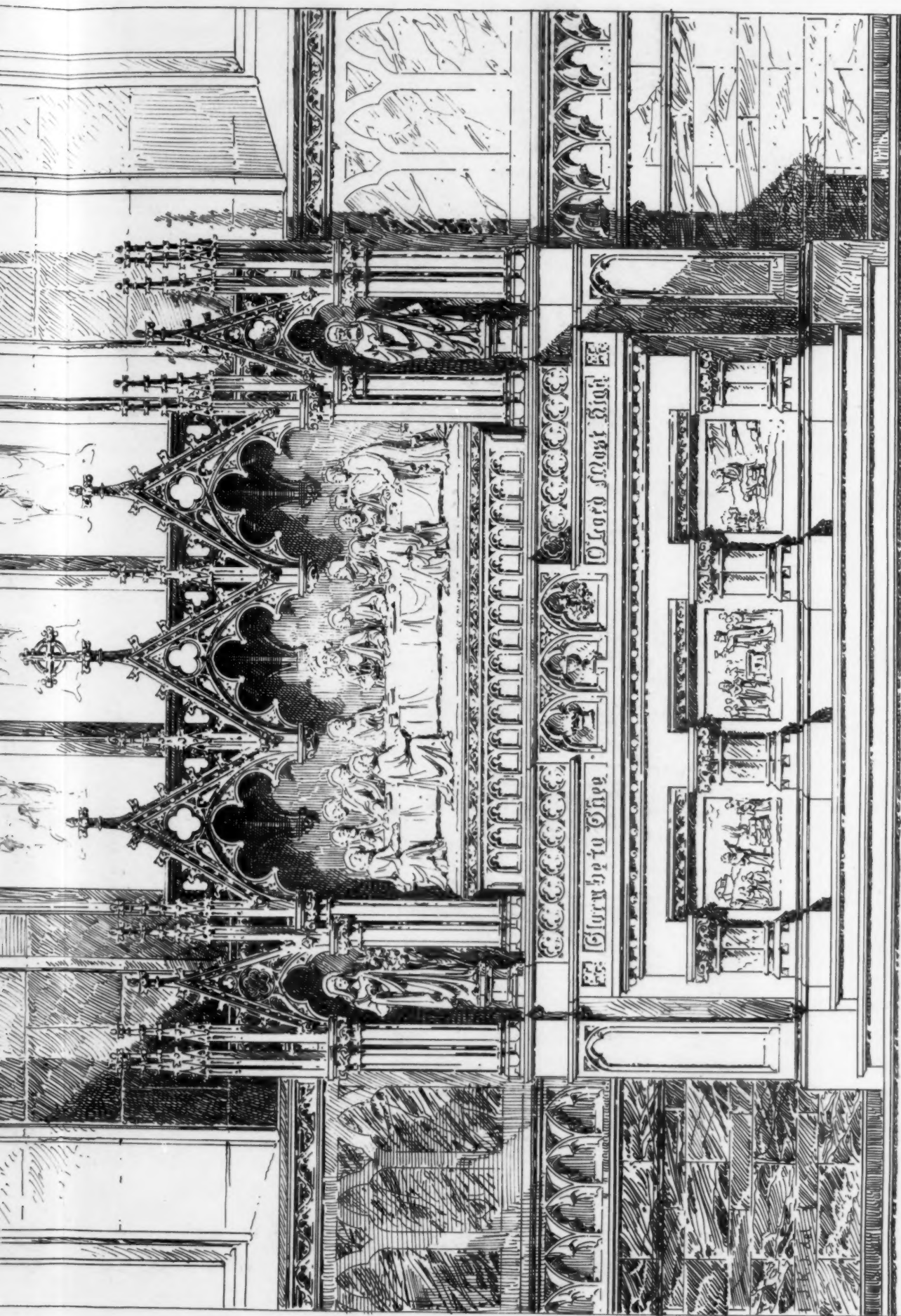
AN OLD STORY WITH A NEW ENDING.—An expert told me of an experience he had once in an old junk-shop abroad, where a curious old chap had dozens of pictures hanging in an obscure and dingy building. As he entered the shop his eye caught what seemed to him a genuine Rembrandt. He was instantly excited, but concealed his emotion and began pricing every picture but this particular one. The prices varied from \$5 to \$15, and when they reached the Rembrandt the old dealer said: "There's a picture wot cost me \$25; wot you give for him?" The expert thought he was safe in suggesting \$50, whereupon the old man came up close to him and shouted in his ear: "Why, you darned fool, that's a Rembrandt, and I want \$25,000 for it." This picture actually sold for \$12,500, and is owned in this country at present.—*The Art Collector*.

STONEHENGE A SUN-DIAL.—An attractive solution of the purpose of Stonehenge was put forward at the British Association recently. Dr. Alfred Eddowes, addressing the Anthropological Section, advanced the theory that the building was a gigantic sun-dial. The thirty great upright stones with their intervals showed, in his opinion, that the circle was divided into sixty equal parts, the grooved stone having been used for supporting a pole, which formed the pointer of a sun-dial for daily observation, or an indicator of the time of the year by the length of the shadow. Dr. Sebastian Evans, who presided, held that Dr. Eddowes had proved his point, that Stonehenge had been used as an observatory; but Mr. Arthur Evans protested against the attempt to introduce very precise and rigorous ideas into a rude monument, and contended that Stonehenge, which was on the site of an early Bronze Age cemetery, ought not to be regarded alone, but in relation to a large series of other stone monuments. One would like to know what is the date or period to which the oldest authentic sun-dial can be attributed.—*London Spectator*.

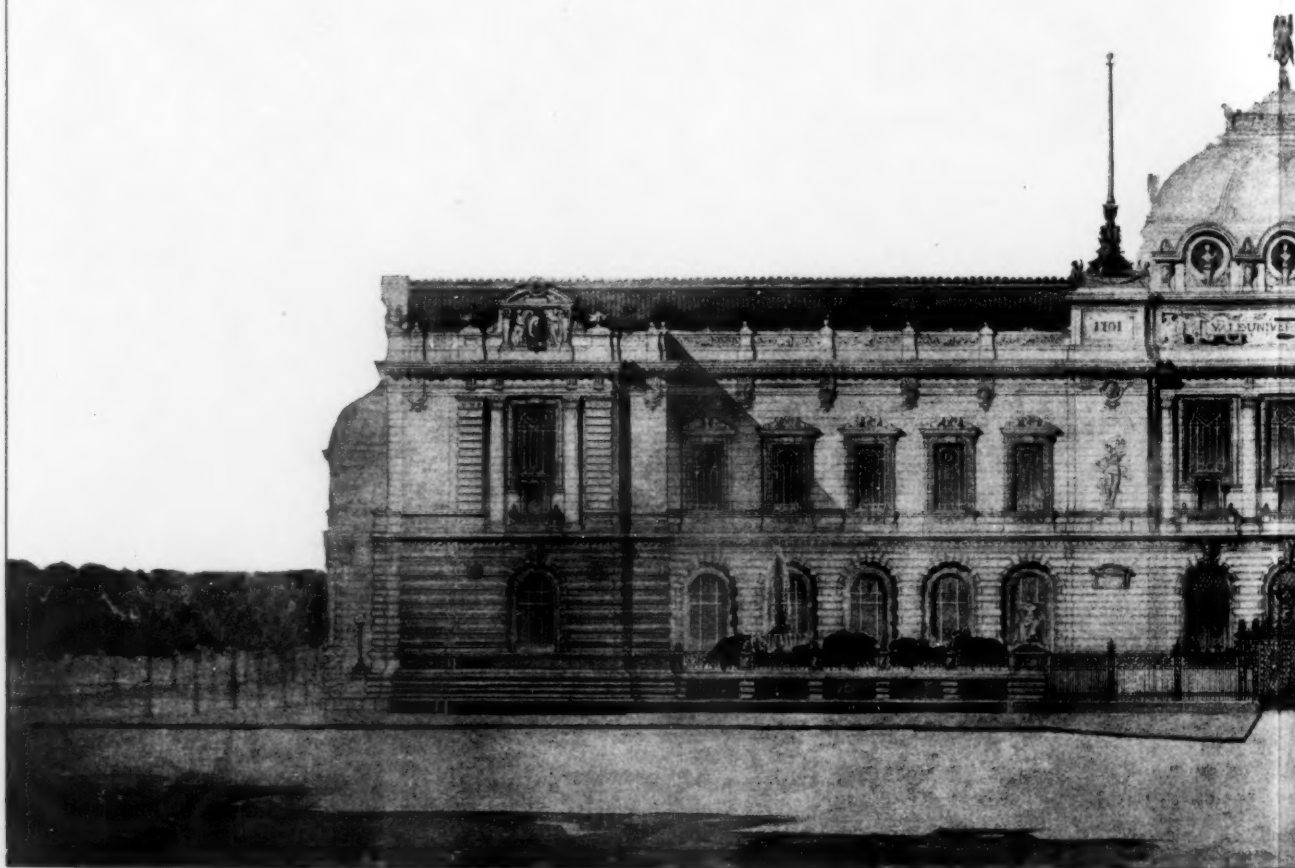
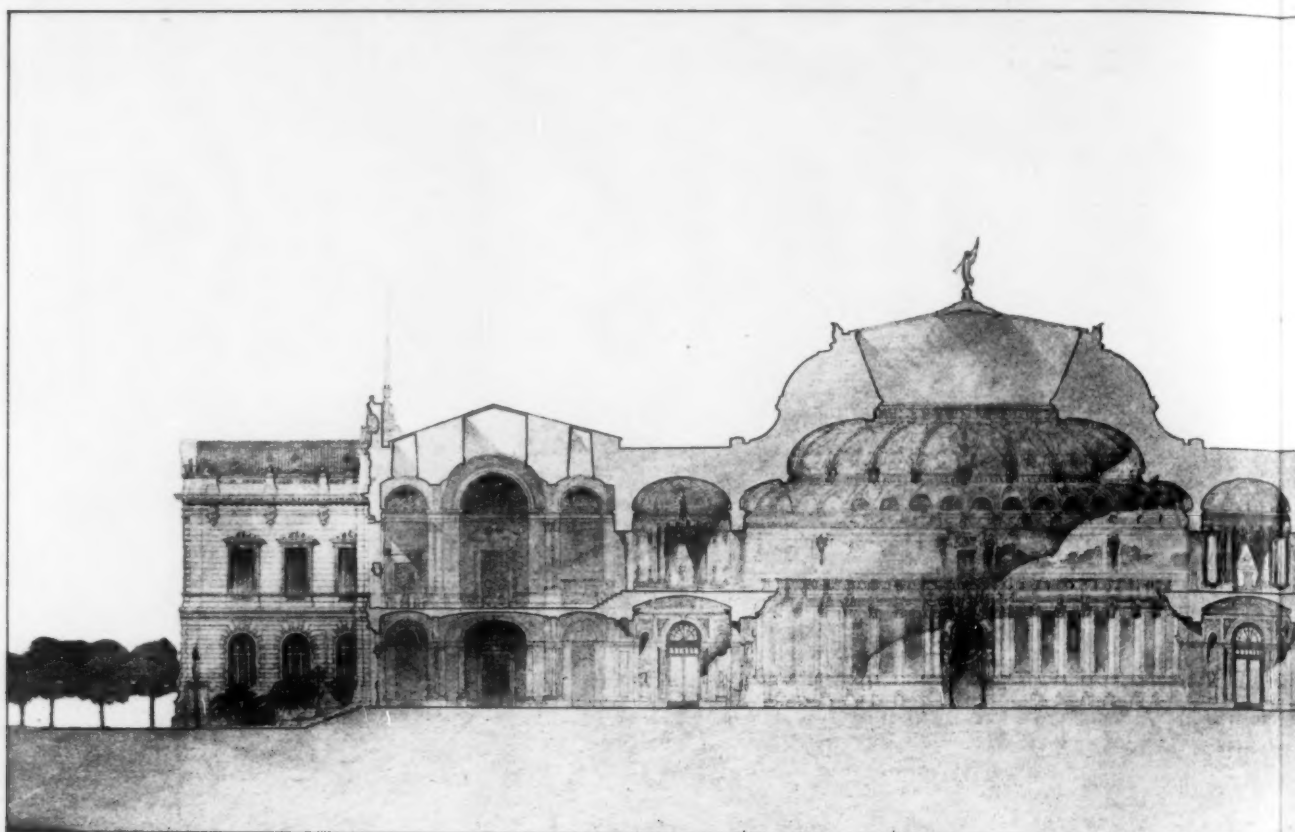
DISMAL SWAMP CANAL.—The famous Dismal Swamp Canal, which waterway was originally surveyed by George Washington, was formally opened to navigation, October 14, and a novel procession of vessels went through, the United States torpedo-boat "Talbot" bringing up the rear. Nearly a thousand people from various parts of the country attended the opening. Nearly a million dollars was spent in reconstructing the canal, which is to meet the demands of modern traffic and as a connecting link furnishing an island waterway from the Chesapeake Bay to Albemarle and Pamlico Sounds. It is expected to revolutionize the carrying business in the section traversed, furnishing a cheap mode of transportation, the carrying of freight in barges towed by the tugs. This system is successfully operated from Norfolk along the North Atlantic Coast, but the South Atlantic Coast is deprived of this mode of transportation, owing to the danger of Cape Hatteras, which makes it impossible to handle barges in this manner. By following the canal-route Hatteras is avoided. The canal extends from Deep Creek, near Norfolk, to Pasquotank River, North Carolina; is 22 miles long, 10 feet deep, and 80 feet wide. There are only two locks, one at each end of the canal.—*N. Y. Evening Post*.

A SINGULAR RUSSIAN DRAWBRIDGE.—Bridges of various character, movable in different ways and used over navigable channels have been described in these columns from time to time, together with the means used in their operation. One of the oddest which has come to notice is one on the Nicolas Railway in Russia, which is believed to be unlike anything existing in this country. The stream spanned has a width of only about thirty-three feet and in this country the bridge erected would probably have been a single bascule with rolling counterweights like some recently erected on the Erie Railroad, or of the rolling-lift type like those installed just outside the new Southern Terminal in Boston. The bridge under description is for two tracks and the span for each track is composed of two independent parts, one consisting of a carriage like a transfer-table in general plan and the other is a rolling or retractile bridge. This plan has the disadvantage of necessitating an abutment nearly twice the extent of the width of the stream and wide enough for four tracks. Beginning the description at the shore-end of the side from which the bridge is operated, the tracks are first laid upon a movable section of a length equal to the channel-span. This section, which is independent for each track, is carried on wheels moving on rails laid transverse to the axis of the bridge. Connecting with these sections are two other sections, one for each track, carried on plate-girders a trifle less than twice the length of the channel-span and these sections are carried on trucks moving on rails laid in the direction of the length of the bridge. The shore-end of the rolling-part of these sections is shorter than that which covers the stream, and it is accordingly counterbalanced by the addition of weights. In its closed state the bridge and the carriages rest upon fixed supports and may be considered as rigid structures. When opened to allow of the passage of boats the first movement is made by forcing the points carrying most of the weight by raising them to a certain height by means of a special mechanism consisting of a combination of an eccentric gear and an endless screw. The two shore-sections are then moved aside right and left until they occupy positions parallel with their original ones and distant therefrom the width of one track, or sufficient to allow the channel-part of the bridge to be retracted. The rolling-part projecting over the channel is then moved back upon its own axis, occupying the space vacated by the shore-section which had been moved laterally aside. The bridge is protected by special electrically-operated signals.—*Providence Journal*.

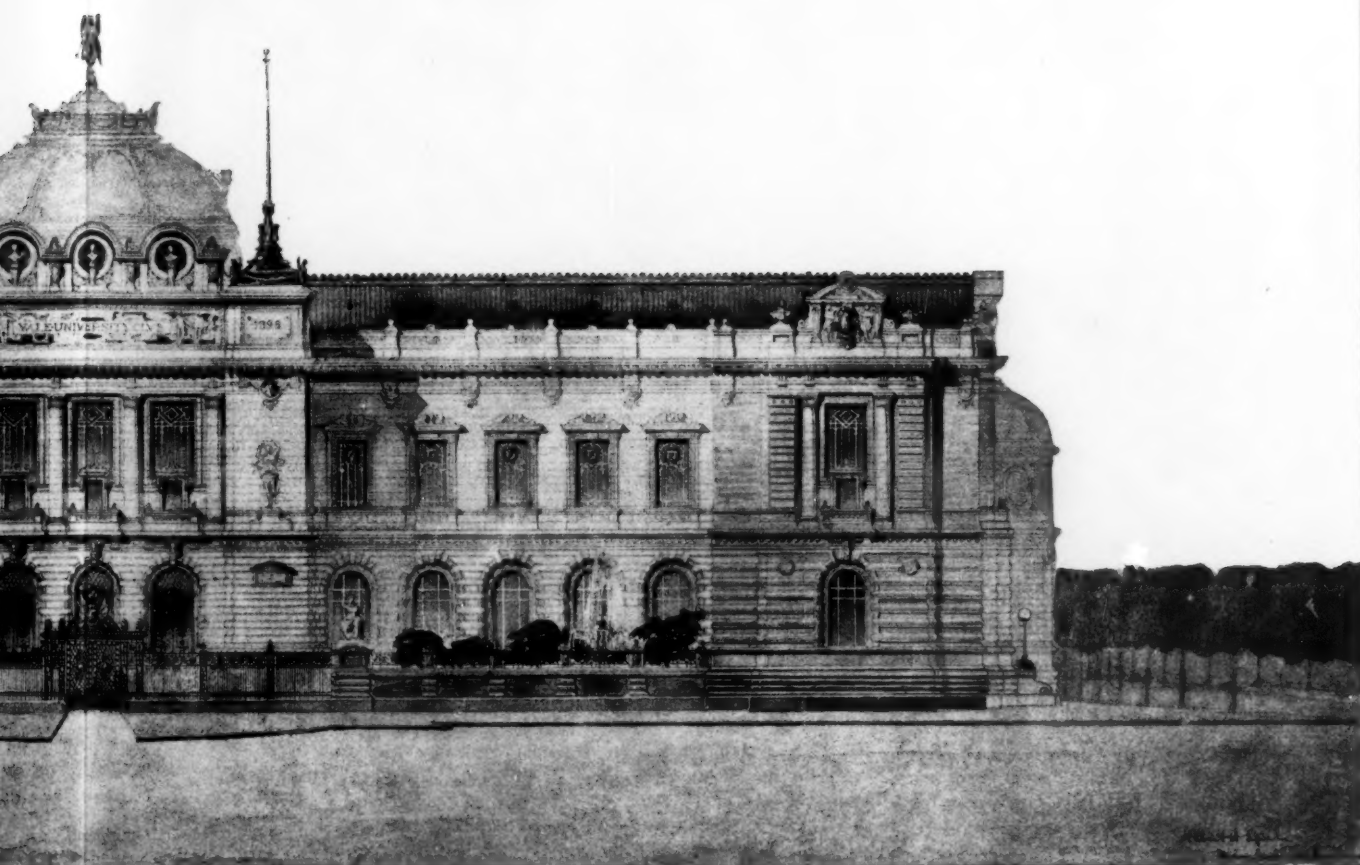
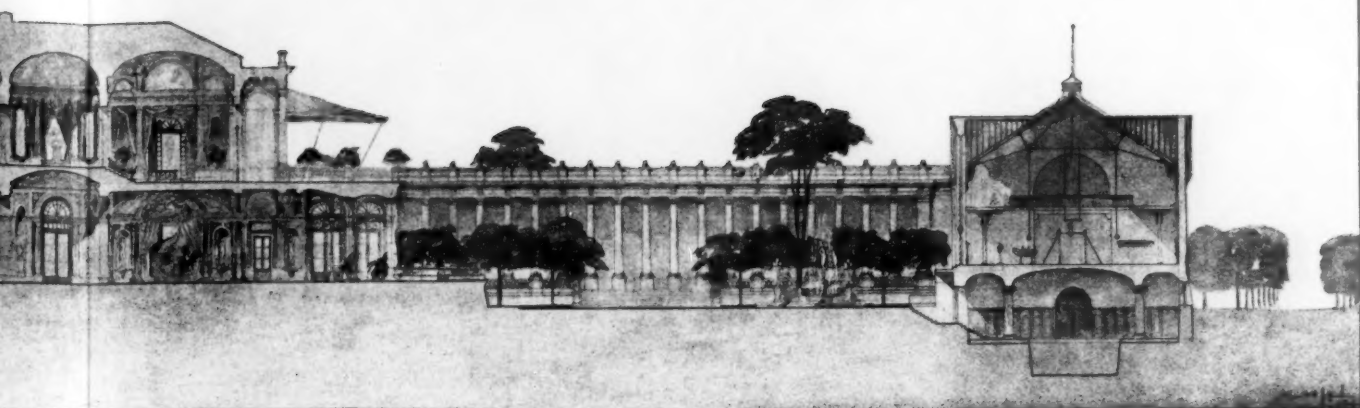




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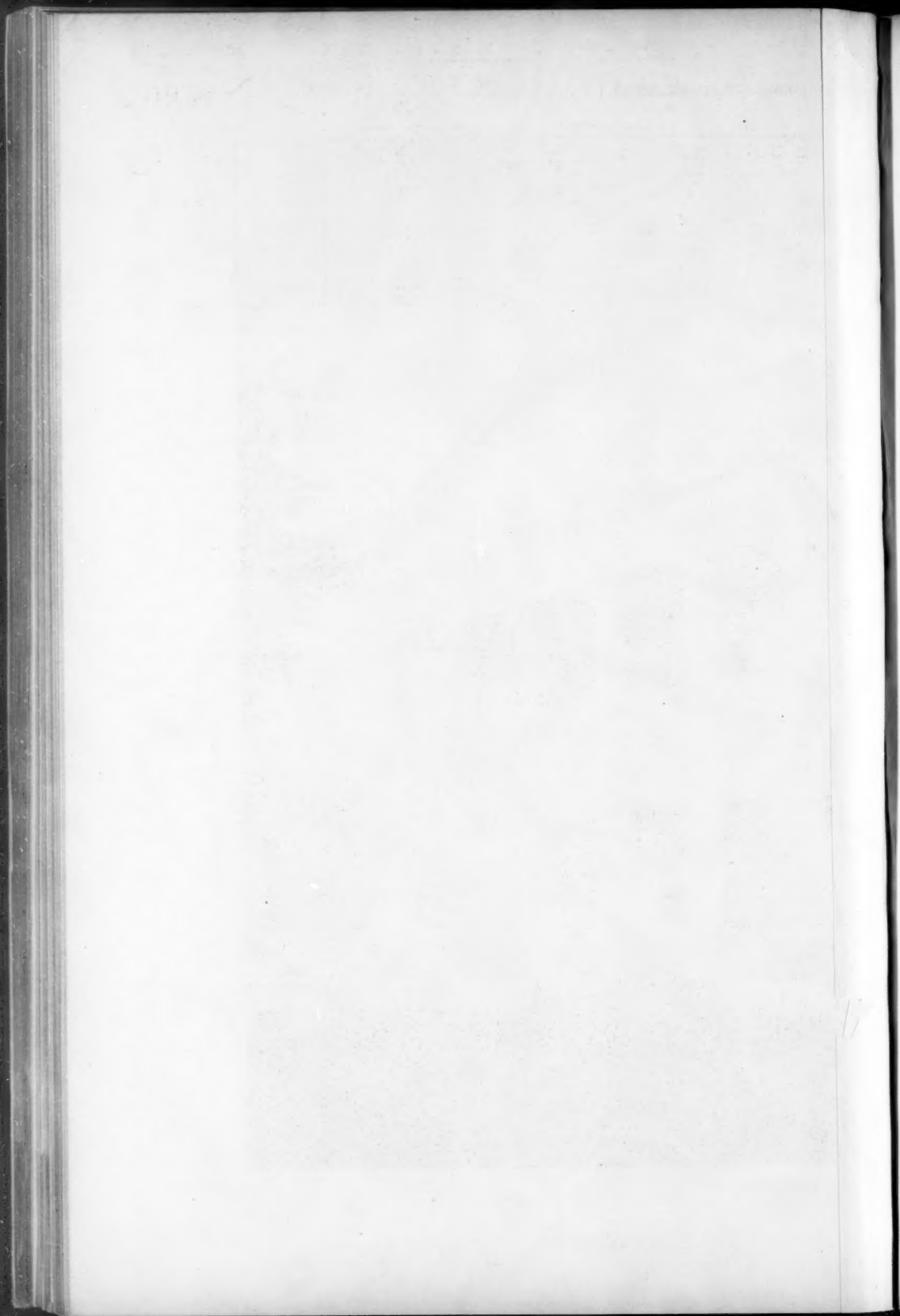
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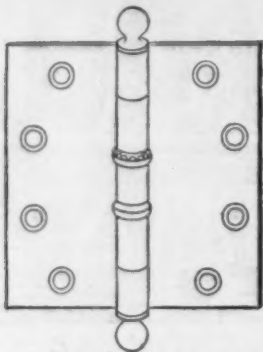
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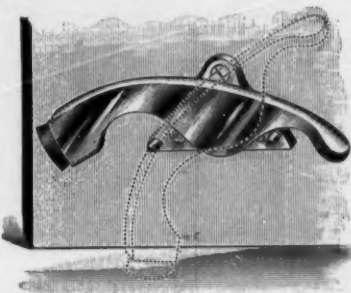
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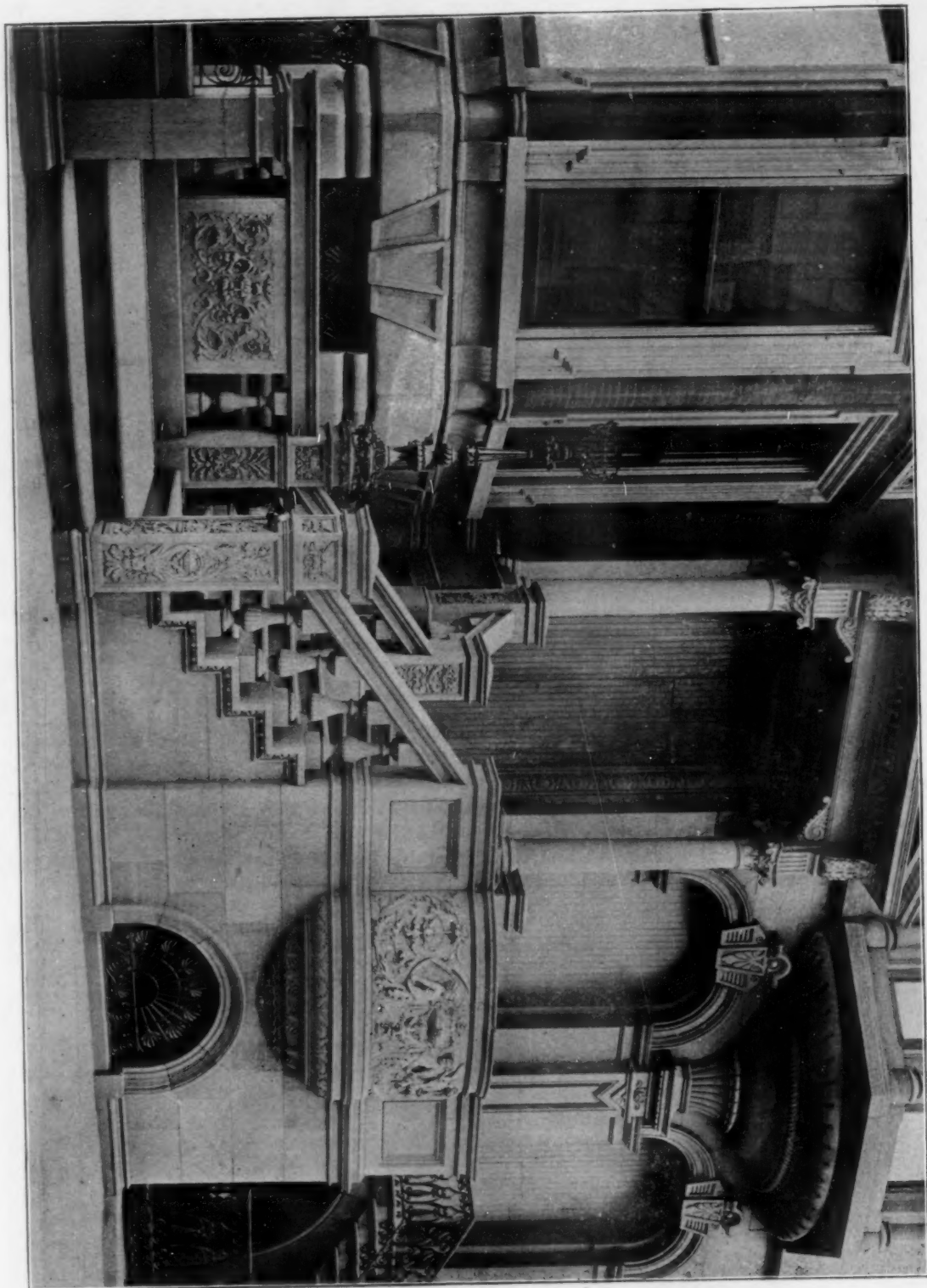
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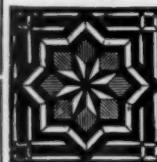
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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Xavier's R. C. Church has decided to erect a \$150,000 residence on Carroll St. and 6th Ave. Rev. David J. Hickey, rector.

The old Suydam Homestead at the corner of Evergreen Ave. and Woodbine St., which was built and has been occupying this plot for over 200 years, is to be torn down and a church is to be erected in its place by the South German Baptists.

Reports state that the congregation of St. Mark's P. E. Church will erect a \$150,000 edifice on Eastern Parkway and Brooklyn Ave. Henry M. Congdon, architect, 18 Broadway, New York City. Rev. Sam'l M. Haskins, rector.

Buffalo, N. Y. — New York capitalists contemplate erecting a large hotel on the site of the old French church at the corner of Clinton and Washington Sts.

Batte, Mont. — The Knights of Pythias have formed the Pythian Castle Association and will erect a building.

White & Lignell, architects, have plans for a five-story hotel building for the Thornton estate. It will be 90' x 110', of steel and brick, with granite foundation, composition roof, steam heat; cost, \$150,000.

Chattanooga, Tenn. — The Mountain City Club will erect a \$25,000 club-house.

Chicago, Ill. — Plans have been drawn for a produce market to be located near 43d and Halsted Sts. Alderman John F. Russell, of the 29th Ward, is said to be one of the chief promoters of the enterprise.

Cleveland, O. — It is stated that the Social Turnverein will build a new turn hall on Lorain St. The building will be four stories high, of stone, brick and iron, with gravel roof and steam heat; cost, \$40,000.

Concord, Mass. — William M. Wood, treasurer of the American Woollen Co. states that his company has secured large tracts of land at Concord Junction, that it is the intention to erect there the coming spring the largest woollen mill in the country, designed to manufacture a general line of woollen goods. The mill, as planned, is to be 1,500 feet long and equipped with the latest and most improved machinery. A large storehouse will also be erected capable of holding 25,000,000 pounds of wool. A large shoddy plant is to be built, the ground for which will be broken this fall at the same location.

Concord, N. H. — The Trustees of Dartmouth College have authorized the construction of a dormitory building at the college, the cost not to exceed \$25,000.

Des Moines, Ia. — Liebke, Nourse & Rasmussen, are making plans for a six-story structure for the Harris Emery Co. on 7th and Walnut Sts., to replace the building recently destroyed by fire. It will be built of pressed brick, 60' x 132', and cost \$75,000.

Duluth, Minn. — A new court-house to cost about \$100,000 is contemplated.

Dysart, Ia. — The Bohemian Catholic Society have decided to build a \$15,000 church. Rev. M. F. McInery, Vinton, pastor in charge.

Elkader, Ia. — The Elkader State Bank has had plans prepared by Guido Beck, architect, of Dubuque, for a bank, office and Masonic Hall building. It will be three-story and basement, 42' x 14'; cost, \$20,000. The contract for the foundation is let to T. Byrne.

Emporia, Kan. — At the November election the citizens of Lyon County will vote on the question of erecting a court-house.

Fonda, N. Y. — The contract for the almshouse has been awarded to John H. Nelson, of Herkimer, for \$11,144.36.

Fredericksburg, Va. — Reports state that M. J. Dimmock, of Richmond, has received the commission to prepare plans for a \$20,000 post-office.

Hayward, Wis. — Plans for the new Indian School to be erected here have been completed. They provide for a modern building to cost \$80,000, and will contain swimming pool, gymnasium, etc.

Highland Park, Ill. — A \$75,000 three-story brick hotel is to be erected near the lake shore by F. W. Cushing. E. A. Mayo, 84 Adams St., Chicago, architect.

Houghton, Mich. — The projected hospital is now assured, and the ladies in charge propose to go ahead with the enterprise at once.

Huntsville, Ala. — Report states that arrangements are about completed for the doubling of the Dallas mill, which is at present the largest cotton-mill in Alabama. The doubling of the mill will cost about \$700,000. The company will then employ about 1,500 more hands. Two hundred tenements will be constructed for the accommodation of the new operatives.

Huntsville, Tenn. — The Chamber of Commerce of this city has secured the location of a cotton-mill, to be put up by New England capitalists, costing

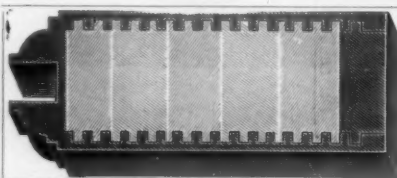
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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

\$700,000. The site has been donated by the West Huntville Land & Improvement Co.

Jersey City, N. J. — It is proposed to erect a \$300,000 high school.

The American Sugar Refining Co. will erect a twelve-story building, 100' x 250', on land adjoining their present plant.

Kenosha, Wis. — The council has taken steps toward the construction of a poor house, to cost \$15,000.

La Crosse, Wis. — Plans have been prepared for the Norwegian Lutheran Hospital, to be three-story and basement, of brick, containing 82 rooms for patients.

The La Crosse Lutheran Hospital Association has been formed and proposes to erect a hospital to cost about \$25,000.

Le Roy, Wis. — Anton Dohmen, architect, Milwaukee, has prepared plans for a modern church to be erected here, for Rev. I. W. Blume's congregation. It will be 42' x 58' x 130', solid brick, on stone foundation; cost, \$15,000.

Madison, Wis. — H. A. Betts, of Milwaukee, has prepared plans for a \$12,000 church for the First Baptist Society.

Mankato, Minn. — The Building Committee of the Methodist Society has instructed Wesley Arnold, architect, of Chicago, Ill., to proceed with plans for the new church, to cost about \$25,000.

Mexico City, Mex. — The National Bank of Mexico, which has a capital and surplus of some \$20,000,000, is about to build a magnificent edifice, probably adopting a plan now becoming popular, of steel frame structure with stone facings.

Milwaukee, Wis. — Residents of the north side have petitioned the Board of Education to erect a high school in that section. The council committee has recommended appropriating \$20,000 for a site for the building.

A \$35,000 school-building for deaf mutes is proposed.

The contract for the construction of a bridge over Fall Creek at Indiana Ave. has been awarded

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

to the Milwaukee Bridge and Iron Works, for \$20,978.

The Young Women's Christian Association has secured a site on Jackson St., near Wisconsin St., for the erection of a building. Five local architects are preparing plans for a building and a selection will be made at the meeting of the Board in November. Work will be started in the spring.

The Children's Friend Association of Wisconsin, a Lutheran organization, contemplates erecting an orphan asylum here.

Minneapolis, Minn. — The plans of E. P. Overmire have been accepted for the new Asbury Hospital to be erected on 14th St. and 10th Ave., S. The building is to be 100' x 297', four stories and basement of brick, stone and terra-cotta, fireproof construction; cost, \$100,000.

Hermann Kreis & Co., architects, St. Paul, are preparing plans for a school-building to be erected by the St. Boniface Catholic Society, on University and 7th Ave., N. E. It will be 64 x 132', two stories and basement, brick and stone, with eight school-rooms on the first floor; cost, \$28,000.

Minneapolis, N. Y. — Richard H. Hunt, 28 E. 21st St., New York City, is preparing plans for a \$25,000 hospital for the Nassau Hospital Association.

Nashville, Tenn. — A \$125,000 addition will be built to St. Thomas's Hospital.

New Haven, Conn. — An addition is to be built to the St. Francis Hospital, at the corner of Woodland and Collins Sts. It will be three stories high, and the materials used will be brick with stone trimmings. With the proposed addition, the hospital will be able to accommodate from 75 to 80 patients. At the present time there are accommodations for only 30 patients.

Norfolk, Va. — J. E. R. Carpenter, Columbia Building, has prepared plans for the \$50,000 St. Vincent's Hospital.

North Birmingham, Ala. — The Dimmick Pipe Co. will build a new plant at this place, costing \$150,000, and will employ about 300 men.

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Oshkosh, Wis.—Ex-senator Sawyer of Wisconsin has given \$6,000 for the building of a home for the friendless in this city.

The Board of Education has adopted plans by E. E. Stevens, architect of this city, for the new 10th Ward school-house.

Philadelphia, Pa.—A \$60,000 addition is to be erected to the insane department of the Philadelphia Hospital.

Hazlehurst & Huckel are preparing designs for an office-building to be erected at 1416-1418 S. Penn Sq.

Will D. Decker has completed designs for a three-story mill addition of brick, stone and steel, 55' x 122', to be built at 2154-2160 Adams St., for A. Schoenhut & Co.

G. W. & W. D. Hewitt have been selected to make the drawings for the new hotel which a syndicate of which W. G. Huey is president, contemplates erecting at Chelsea, Atlantic City. Allen B. Rorke will be the contractor.

Princeton, N. J.—Plans have been completed for the erection of the Dodge Hall at the Princeton University, to cost about \$60,000.

Providence, R. I.—Probably the next structure to be added at Brown will be the memorial gateway and administration building provided for in the will of Augustus S. Van Wickie, Brown, '76. Mr. Van Wickie left \$45,000 for this purpose, and announcement was made of the gift at the meeting of the Corporation last month.

Racine, Wis.—The Union Hall Association will erect a labor temple to cost \$10,000 to \$12,000. It will consist of a large hall, library, reading-rooms, etc., with stores on the ground floor.

Red Lake, Minn.—Plans have been completed for the improvements to the Indian School, where \$35,000 will be expended.

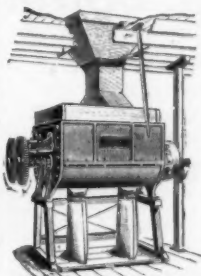
Richmond, Va.—W. A. Chesterman, 1206 Taylor St., has received the contract for building a \$15,000 addition to Watts Hall, Union Theological Seminary.

Sherman, Tex.—The Sherman Country Club will erect a \$20,000 club-house.

St. Louis, Mo.—The Monarch Rubber Co. secured a permit for the erection of a two-story rubber factory and boiler-rooms on the south side of Bittner St., between Kendrick St. and Broadway. The building will have an area of 156' x 236', and the cost is estimated at \$40,000.

St. Paul, Minn.—W. T. Towner is preparing plans for a three-story store and office building, 100' x 100', to be built at the corner of 5th and Cedar Sts.; estimated cost, \$32,000.

Hennessey & Cox have been awarded the contract



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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

to erect the addition to the post-office at \$179,990.

Victor, Col.—It is stated that the plans of P. P. Mills have been accepted for the new city building.

Wesauking Lake, Pa.—Architect John Carson, of Buffalo, N. Y., has drawn plans for a sixty-room frame summer hotel to be built here for a number of Buffalo business men. It will be three stories high and will have balconies around the first and second stories. The hotel will be elaborately fitted, and will cost about \$50,000.

Winnebago City, Minn.—The Presbyterian Society contemplates erecting a new church next season to cost about \$10,000.

Worcester, Mass.—Plans for a new hotel have been prepared by E. T. Chapin. The building will be erected on S. Bridge St., and will cost \$50,000.

Wyandotte, Mich.—Kastler & Hunter, Detroit, have completed plans for a new Catholic school and church building to be erected here; cost, \$23,000.

HOTELS.

Boston, Mass.—Joy St., cor. Myrtle St., Ward 11, bk. & st. hotel, 70' x 109', flat roof, steam; \$200,000; o., Beacon Chamber Trust; b., Webb Construction Co., Worcester; a., Herbert D. Hale.

HOUSES.

Boston, Mass.—Northampton St., nr. Albany St., Ward 12, 4 three-st'y bk. dwells. & stores, 19' x 55', flat roofs, stoves; \$25,000; o. & b., Simon Silverman, 23 Leverett St.

Kempton St., nr. Huntington Ave., Ward 19, 2 four-st'y bk. dwells., 20' x 23' x 68', flat roofs, steam; \$14,000; o., B. J. Connelley, 93 Dale St.; b., Wm. Adams.

BUILDING INTELLIGENCE.

(Houses Continued.)

Genoa Ave., nr. Tonawanda St., Ward 20, 2 three-st'y bk. dwells., 30' x 34' x 43' & 25' x 33', flat roofs, steam; \$15,000; o., John H. Carroll, Gerard St.; b., H. A. Bellamy.

Winthrop St., nr. Dennis St., 2 three-st'y bk. dwells., 17' x 45' & 17' x 50', flat roofs, stoves; \$10,000; o., Jos. Mahanski; b., B. Fortnick, 51 Vernon St.

Dennis St., nr. Winthrop St., Ward 17, 2 three-st'y bk. dwells., 19' x 45' & 19' x 55', flat roofs, stoves; \$10,000; o., Jos. Mahanski; a., B. Fortnick.

Ruggles St., Nos. 60-64, Ward 18, 3 four-st'y bk. dwells., 20' x 45', flat roofs, stoves; \$13,000; o. & b., Max Bratkovsky, 7 Genesee St.

Washington St., cor. Algonquin St., Ward 20, two-st'y fr. dwell., 33' x 35', hip roof, steam; \$15,000; o., John Fottler; b., J. H. Burt & Co., Mattapan.

Walk Hill St., nr. Blue Hill Ave., Ward 23, 2-st'y fr. dwell., 23' x 30' x 41', pitch roof, furnace; \$5,000; o. & b., J. B. Mulvey, 652 Walk Hill St.

Branch Ave., nr. Arcadia St., Ward 20, two-st'y fr. dwell., 25' x 44', flat roof, stoves; \$4,000; o. & b., G. O. Goudey et al., 628 Sixth St.

Kerwin St., nr. Bernard St., Ward 20, 2-st'y fr. dwell., 29' x 49', pitch roof, furnace; \$5,200; o. & a., M. O'Connor; b., J. A. Cruickshank, 1 Carlos St.

Fairbanks St., nr. Faneuil St., Ward 25, 2-st'y fr. dwell., 25' x 40', pitch roof, furnace; \$4,500; o. & b., John McFarlane, 55 Fairbanks St., Brighton.

Brookline, Mass.—2-st'y fr. dwell., 35' x 65', gable roof; \$25,000; o., Chas. P. Flagg; b., B. W. Neal, Jr.; a., Julius Schweinfurth, Boston.

Walnut St., 2-st'y fr. dwell., 50' x 100', hip roof; \$45,000; o., Fred'k S. Coffin; b., B. W. Neal, Jr.; a., Julius Schweinfurth, Boston.

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The above illustration is taken direct from a photograph taken the morning after the fire at the Russell & Erwin Manufacturing Company, at New Britain, Conn. The building on the left was a wood-working establishment, the interior of which was completely destroyed by fire. The building on the right is the main shop—the two buildings being separated by a narrow driveway. The latter building was armed with our corrugated-iron fireproof shutters, and their efficiency and fireproof construction saved the building and probably the entire plant from destruction.

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Balconies and Ladders, Columns and Roofs, Sky and Floor Lights, Stable Fittings and Fixtures,
Sidewalk Lights. Artistic work in Wrought and Cast Iron, Brass and Bronze.
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BUILDING INTELLIGENCE.

(Houses Continued.)

Evansville, Ind. — Two-st'y fr. dwell., slate roof,
furnace; \$6,000; o., L. A. Wallenberger; a., Harris
& Shopbell.

Newton, Mass. — Waverly Ave., Ward 7, two-st'y
dwell., 60' x 67'; furnace; \$20,000; o., A. B. Turner;
b., H. F. Ross Co., Newtonville.

Mill St., Ward 2, two-st'y dwell., 32' x 46', hot
water; \$9,000; o., Mrs. W. H. Baker; b., Clark &
Melaunson.

Newtonville, Mass. — 23-st'y fr. dwell., 40' x 65',
hip roof; \$25,000; o., C. S. Dennison; b., H. F.
Ross Co.; a., Julius Schweinfurth, Boston.

Osterville, Mass. — Three-st'y fr. dwell., 30' x 80',
gable roof; \$7,000; o., Miss Williams; b., B. W.
Neal, Jr.; a., Julius Schweinfurth, Boston.

Overbrook, Pa. — Sherwood Road, three-st'y st. &
bk. dwell., 31' 4" x 58' 3"; \$7,200; o., Wendall &
Smith; b., Milton W. Young; a., W. L. Price.

COMPETITIONS.

SOCIETY OF BEAUX-ARTS ARCHITECTS.
SEASON 1899-1900.

NOTICE: RELATING TO COMPETITIONS.

For all problems except sketch problems, as
follows:—

Students intending to compete are required to send
sketches to the undersigned within fifteen days from
date of programme. All sketches received later
than this will be thrown out.

These sketches are to be on tracing-paper, and
unless otherwise ordered, are to consist of one plan,

COMPETITIONS.

one section and one elevation as a scale of 1-16" to
the foot.

The finished drawings must be mounted on strainers
or compo board and forwarded to W. S. Budworth
& Son, 424 West 52d St. (expressage prepaid), before
the expiration of three months from the date of the
programme.

The scale at which the finished drawings are to be
made will be noted on the programme.

The finished drawings, unless otherwise ordered,
may be rendered in water-color or India-ink.

Non-observance of the following conditions will
render the student liable to be thrown *hors de con-
cours*:—

First.—If the sketch is carelessly drawn.
Second.—If the limits set by the programme are
exceeded.

Third.—If the rendered drawings differ materi-
ally from the sketch.

Fourth.—If the sketch is received after the limit
set by this notice.

Fifth.—If the finished drawings are not delivered
to Messrs. Budworth & Son, or to the express
company or other public carrier within the
limit fixed by this notice.

For sketch problems as follows:—
No restrictions are made upon method of render-
ing the sketch, but the drawing is limited to a single
sheet of paper not larger than 14" x 20". A plan and
section at 1" to the foot and an elevation or perspec-
tive of 1-8" to the foot will be required unless other-
wise ordered.

Each competitor is required to design and render
the problem unaided, and to devote but eighteen
hours of actual work upon it.

The finished sketch must be sent flat, unmounted,
to the undersigned, within fifteen days from the date
of programme.

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Boston Office, No. 31 State Street.

COMPETITIONS.

All drawings will be exhibited and judged at the
next regular exhibition of the Society after the date
fixed for their reception.

The jury will award mentions at its discretion
which will carry values as follow:—

First mention for an order problem	1 1/2 values.
" " a plan problem	2 "
Second mention an order problem	1 "
" " a plan problem	1 "
Mention for a sketch	1/2 "

The sketch problems and the Class B problems are
open to all students of architecture. The Class A
problems are only open to students who have obtained
at least four values in Class B, of which one value
must have been obtained for an order problem.

All announcements relating to the competitions
will be published in *Architecture and Building of
New York*.

(Signed) ERNEST FLAGG,
Chairman of Committee on Education,
35 WALL ST., NEW YORK CITY.

October 15, 1899.

A REVIEWING STAND ON A LARGE CITY SQUARE.

[CLASS A, PROGRAMME NO. 17.]

COMPETITION NO. 36.

The Committee on Education proposes as a subject
for this competition, "A Reviewing Stand on a Large
City Square," intended as a memorial of a naval
victory.

REQUIREMENTS.

There shall be a central tribune for the reviewer
and distinguished guests to accommodate about fifty
people and a covered stand on each side of it to
accommodate at least two hundred people. The
pavilion containing the tribune and also the stand
must communicate with a large vestibule or recep-
tion-room placed back of them, adjoining which are
to be two retiring-rooms, toilet-rooms, etc. The
material to be used is cut stone, and the general
appearance of the structure should be monumental
and dignified though not too heavy.

Ornamental flag-poles and lighting fixtures in metal
should be used in a way calculated to impart a festive
appearance to the design.

The greatest dimensions of the building must not
exceed 150 feet.

The finished drawings are to consist of a plan and
section at one-eighth inch scale, and an elevation at
a quarter scale.

(Signed) ERNEST FLAGG,
For the Committee on Education.

October 15, 1899.

A BOAT-HOUSE AND A LANDING STAGE FOR A YACHT
CLUB.

[CLASS B, PLAN PROGRAMME NO. 11.]

COMPETITION NO. 36.

The Committee on Education proposes as a subject
for this competition, "A Boat-house and a Landing
Stage for a Yacht Club."

The property of the club lies on the shore of a small
bay, and includes several hundred feet of water
front. The shore rises rather abruptly from the
water to a plateau about ten feet above the water-
level. The greatest dimensions of the building must
not exceed 150 feet. It is to be built of stone and
wood.

REQUIREMENTS.

A lounging-room, which is also to be used for club-
meetings and is to have one or two fireplaces. A
cloak-room, toilet-room, locker-room, a boat-shed at
least 50 feet long, for row boats; this latter may be
built on a large float or upon piers and arches over
the water. In the latter case there must be one or
more landing stages or floats. There must be a large
piazza on the land side and a piazza or broad over-
hanging balcony on the water side.

The plan and section are to be rendered at an
eighth scale and the elevation at a quarter scale.

(Signed) ERNEST FLAGG,
For the Committee on Education.

October 15, 1899.

AN OPEN PAVILION IN A PUBLIC PARK.

[CLASS B, ORDER PROGRAMME NO. 11.]

COMPETITION NO. 36.

This little building is supposed to stand on the

Ready, Part IV "Georgian Period."

THE KENNEY FLUSHOMETER



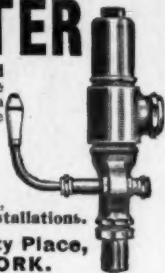
An ingenious device for flushing water-closets. Takes the place of noisy and dirty overhead flush-tanks. It has passed the experimental period; can be adapted to conform to almost every conceivable requirement, and the only system that will operate successfully at all times one or any number of closets under the varying conditions of water pressure. No Cup Leathers or Springs.

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No. 284,326, Jun. 15, 1897
No. 283,275, May 25, 1897
No. 283,276, May 25, 1897
No. 591,588, Oct. 12, 1897

No. 620,888, Mar. 14, 1899
No. 601,426, Mar. 29, 1896
No. 608,540, Aug. 2, 1896
No. 608,572, Aug. 9, 1896

All manufacturers, sellers or users of such heaters are doing so contrary to law, and it is our intention to protect our rights under the patents by all legal means.

MONARCH WATER HEATER CO.

MANUFACTURERS OF THE

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306 WOOD ST., PITTSBURGH, PA.



COMPETITIONS.

bank of a lake, and is to form an interesting point of view from a public drive. It may have grottoes and fountains in its base.

The roof is to be supported by columns of the Corinthian order. The building may be ornamented with statuary. The plan of the pavilion proper must not exceed 40 feet in its greatest dimension.

The finished drawings are to consist of a plan and section at one-eighth scale and an elevation at one-quarter scale, and a sheet of details rendered at one-quarter the size of execution.

(Signed) **ERNEST FLAGG,**

For the Committee on Education.

October 15, 1899.

A BAND STAND AT A LARGE SEASIDE RESORT.

[CLASS B, SKETCH PROGRAMME NO. 60.]
COMPETITION NO. 36.

The Committee on Education proposes as a subject for this competition, "A Band Stand at a Large Seaside Resort."

It is to be planned to accommodate a band of 100 musicians. The back of the stage may be formed by a great niche to act as a sounding-board.

The construction is to include a dressing-room and a toilet-room, but these may be supposed to be under the stage. There may be a colonnade or covered way at either side.

The greatest dimension of the construction must not exceed 150 feet.

The material to be used is wood.

(Signed) **ERNEST FLAGG,**

For the Committee on Education.

1244

CHURCH.

[At Lynchburg, Va.]

Plans are wanted for a new edifice for the Court St. M. E. Church. Address **REV. A. COKE SMITH,** D. D.

1245

LIBRARY.

[At Fort Worth, Tex.]

The committee for the Carnegie Public Library at Fort Worth is prepared to receive plans for the above building **November 1, 1899.** For particulars and conditions apply to **HOWARD MESSER,** local superintendent.

1244

CHURCH.

[At Roanoke, Va.]

Plans for a Catholic church, brick and stone, will be received until **December 1.** **J. J. GARRY,**

1245

RESIDENCE.

[At Sacramento, Cal.]

Architects are invited to submit plans and specifications for the construction and furnishing of a residence for the governor of the State of California. Said governor's residence shall be erected in the city of Sacramento, and on the grounds of the State Capitol Park. The amount to be expended in the erection and construction of said governor's residence, including the payment for the necessary plans therefor, shall not exceed the sum of \$40,000. The plans and specifications must be delivered to the State Capitol Commission, or to the secretary thereof, at the office of said commission, on or before **November 11.** For further particulars, apply to **HENRY T. GAGE,** president.

1245

PROPOSALS.

SCHOOL AND WATER AND SEWER SYSTEM.

[At Pima Agency, I. T.]

Department of the Interior, Office of Indian Affairs, Washington, D. C. Sealed proposals will be received at this office until **November 9, 1899,** for furnishing and delivering the necessary materials and labor required in the erection and completion at the Pima Agency, I. T., of one brick school-house and one sewer and water system. For any additional information apply to this office, or to **Elwood Hadley,** U. S. Indian agent, Pima Agency, Sacaton, Ariz. **W. A. JONES,** commissioner.

1245

CONSTRUCTION.

[At Southern Pines, N. C.]

Bids are wanted by the North Carolina State Horticultural Society for a laboratory and office building for the Experimental Farm. **NORMAN ROBINSON,** Dir.

1244

SCHOOL-HOUSE.

[At Hardwick, Mass.]

The Town of Hardwick requests bids on a school-house, two rooms and basement, to be built at Hardwick Centre. Work to be commenced at once after award of bid and finished promptly. Plans may be seen at office of **Geo. W. Wheelwright** or **E. C. Barnes,** Hardwick. Bids will be opened **Tuesday, October 31st,** at 3 P. M., in Selectmen's room. Committee reserve the right to reject any or all bids. (Signed) **BUILDING COM. OF HARDWICK.**

1244

FURNITURE AND VAULT FIXTURES.

[At Canton, S. D.]

Notice is hereby given that the County Commissioners of Lincoln County, S. D., will receive sealed bids for court-house furniture and vault fixtures, until **November 9th, 1899.** **JONAS MINOT,** county auditor.

1244

Treasury Department, Office Supervising Architect, Washington, D. C., October 12th, 1899. Sealed proposals will be received at this office until 2 o'clock P. M. on the 28th day of November, 1899, and then opened, for the installation of a wiring system for the U. S. Post-office Building at Newport, Ky., in accordance with the drawings and specification, copies of which may be obtained at this office or at the office of the Superintendent of Construction at Newport, Ky., at the discretion of the Supervising Architect. **JAMES KNOX TAYLOR,** Supervising Architect.

1245

Treasury Department, Office Supervising Architect, Washington, D. C., October 14th, 1899. Sealed proposals will be received at this office until 2 o'clock P. M. on the 18th day of November, 1899, and then opened, for the heating and ventilating apparatus, complete in place for the U. S. Court-house and Post-office Building at Norfolk, Virginia, in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Superintendent at Norfolk, Virginia. **JAMES KNOX TAYLOR,** Supervising Architect.

1245

Treasury Department, Office Supervising Architect, Washington, D. C., October 14th, 1899. Sealed proposals will be received at this office until 2 o'clock P. M. on the 13th day of December, 1899, and then opened, for interior painting, decorating, etc., for

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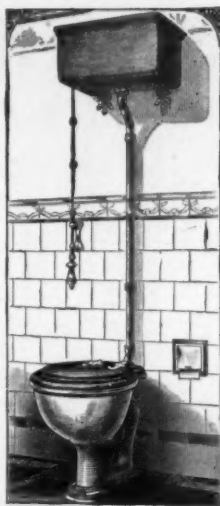
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PROPOSALS.

the U. S. Post-office, Court-house and Custom-house Building at Milwaukee, Wisconsin, in accordance with the specification, copies of which may be had at the discretion of the Supervising Architect at this office or of the Custodian of the building at Milwaukee, Wis. **JAMES KNOX TAYLOR,** Supervising Architect.

1245

PLUMBING.

[At West Point, N. Y.]

West Point, N. Y. Sealed proposals will be received here until **November 16, 1899,** for new plumbing in Cadet Hospital. Address **Q. M., U. S. Military Academy.**

1245

ELECTRIC LIGHT FIXTURES.

[At West Point, N. Y.]

West Point, N. Y. Sealed proposals will be received here until **November 13, 1899,** for furnishing and putting in place electric-light fixtures for Memorial Hall. Address **MALVERN - HILL BARNUM,** quartermaster.

1244

CANAL.

[At Chicago, Ill.]

United States Engineer Office, 1637 Indiana Ave., Chicago, Ill. Sealed proposals for constructing twelve miles, or less, of Western Section, Illinois and Mississippi Canal, will be received until **November 13, 1899.** **W. L. MARSHALL,** maj. engrs.

1244

BRIDGE.

[At Alameda, Cal.]

U. S. Engineer Office, Flood Building, San Francisco, Cal. Sealed proposals for erecting double draw-span bridge, approaches thereto and piers therefor, across tidal canal at Fruitvale Ave., near Alameda, Cal., will be received here until **November 14, 1899.** **W. H. HEUER,** major engrs.

1244

ANNEX TO COURT-HOUSE.

[At Atlanta, Ga.]

Sealed proposals will be received until the 27th day of November for all the labor and materials necessary and required for the building and erection complete of the independent annex for the Fulton County court-house, including the connection between the present court-house and the proposed independent annex. **H. E. W. PALMER,** chairman.

1244

STONE.

[At St. Augustine, Fla.]

U. S. Engineer Office, St. Augustine, Fla. Sealed proposals for delivering 27,000 tons, more or less, of stone in place in jetties at mouth of St. Johns River, Fla., will be received here until **November 3, 1899.** **C. H. McKINSTRY,** captain engineers.

1244

ELECTRIC PLANT.

[At Annapolis, Md.]

Proposals will be received at the Bureau of Navigation, Navy Department, until the 23 day of November, 1899, for the installation of an electric-lighting plant at the United States Naval Academy, Annapolis, Md. **A. S. CROWNSHIELD,** chief of bureau.

1244

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Professional Ethics.

The following . . .

... CODE OF ETHICS ...

Prepared in Conformity with the Best Standards of Practice, and Recommended to its Members by the Boston Society of Architects, was

ADOPTED BY THE SOCIETY, FEBRUARY 1, . . . 1895. . .

SECTION 1. No Member should enter into partnership, in any form or degree, with any builder, contractor, or manufacturer.

SECTION 2. A Member having any ownership in any building material, device or invention, proposed to be used on work for which he is architect, should inform his employer of the fact of such ownership.

SECTION 3. No Member should be a party to a building contract except as "owner."

SECTION 4. No Member should guarantee an estimate or contract by personal bond.

SECTION 5. It is unprofessional to offer drawings or other services "on approval" and without adequate pecuniary compensation.

SECTION 6. It is unprofessional to advertise in any other way than by a notice giving name, address, profession, and office hours, and special branch (if such) of practice.

SECTION 7. It is unprofessional to make alterations of a building designed by another architect, within ten years of its completion, without ascertaining that the owner refuses to employ the original designer, or, in event of the property having changed hands, without due notice to the said designer.

SECTION 8. It is unprofessional to attempt to supplant an architect after definite steps have been taken toward his employment.

SECTION 9. It is unprofessional for a Member to criticise in the public prints the professional conduct or work of another architect except over his own name or under the authority of a professional journal.

SECTION 10. It is unprofessional to furnish designs in competition for private work or for public work, unless for proper compensation, and unless a competent professional adviser is employed to draw up the "conditions" and assist in the award.

SECTION 11. No Member should submit drawings except as an original contributor in any duly instituted competition, or attempt to secure any work for which such a competition remains undecided.

SECTION 12. The American Institute of Architects' "schedule of charges" represents minimum rates for full, faithful and competent service. It is the duty of every architect to charge higher rates whenever the demand for his services will justify the increase, rather than to accept work to which he cannot give proper personal attention.

SECTION 13. No Member shall compete in amount of commission, or offer to work for less than another, in order to secure the work.

SECTION 14. It is unprofessional to enter into competition with or to consult with an architect who has been dishonorably expelled from the "Institute" or "Society."

SECTION 15. The assumption of the title of "Architect" should be held to mean that the bearer has the professional knowledge and natural ability needed for the proper invention, illustration and supervision of all building operations which he may undertake.

SECTION 16. A Member should so conduct his practice as to forward the cause of professional education and render all possible help to juniors, draughtsmen and students.

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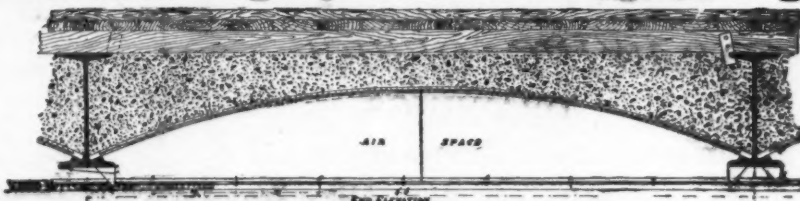
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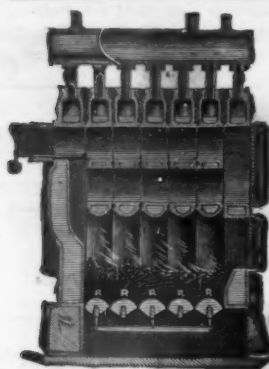
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" 1st.....	@ 5 00			
Hollow.....	@ 7 00			
Fronts:				
Oregon, Brown.....	@ 12 00			
" dark.....	@ 12 00			
" red.....	@ 12 00			
Chicago pressed.....				
" Moulded.....				
Baltimore.....	37 00 @ 41 00			
Philadelphia.....	19 00 @ 21 00			
Trenton.....	17 50 @ 18 50			
Milwaukee.....				
Moulded:				
Red Pressed.....	@ 29 00			
Buff.....	@ 27 00			
Moulded Red & Buff.....	45 00 @ 70 00			
Enamelled: Imp.....				
Enamelled (edge).....	85 00 @ 100 00			
Enamelled (edge and end).....	90 00 @ 110 00			
CEMENT, LIME, etc. (P. cash.)				
Rosendale Cement.....	90 @ 1 00			
Louisville.....				
Utica, Akron, Buffalo, Milw'ke.	Not sold.			
Portland, Eng. (Gibbs).....	2 25 @ 2 50			
" (K. B. & S.).....	2 50 @ 3 00			
" (Black Cross).....	2 25 @ 2 50			
" (Burnham).....	2 50 @ 2 50			
" (White's).....	2 65 @ 3 00			
" French (Lafarge).....	3 60 @ 3 75			
" Ger. (Alsen).....	2 90 @ 3 25			
" (Fowler).....	2 25 @ 2 40			
" (Vorwiler).....	2 50 @ 2 90			
" (Lagerlofer).....	2 75 @ 3 00			
" (Dyckerhoff).....	2 50 @ 3 00			
" (Hanover).....	2 35 @ 2 45			
" Stettin, (Anchor).....	2 75 @ 3 00			
Roman.....	4 25 @ 4 75			
Keene's coarse.....	@ 6 50			
" superfine.....				
Lime:				
Lime of Tell.....	@ 4 00			
Hydraulic Lime.....	@ 1 45			
Chicago Lime in bulk.....	St. John			
Wisconsin Lime.....	@ 80			
Rockland and Rockport, (Com.).....	75 @ 80			
Rockland, finish.....	85 @ 90			
Kelley Island Lime, finish.....	@			
State, Com. cargo rates.....	@ 65			
Plaster-of-Paris (calined).....	@ 75			
" (casting).....	1 30 @ 1 40			
" (cast).....	@ 1 00			
Hair (cattle) P. bush.....	14 @ 16			
" (Goat).....	17 @ 19			
Sand, P. load.....	1 00 @ 1 25			
Domestic Com.....				
Domestic Face.....				
18 00 @ 25 00				
Philadelphia.....	35 00 @ 40 00			
10 00 @ 11 00				
Phila. mould.....	50 00 @ 80 00			
Enamelled B'k.....				
Imported.....				
Enam. (edge).....	105 00 @ 120 00			
" (edge & end).....	120 00 @ 135 00			
Domestic.....				
Enam. (edge).....	90 00 @ 100 00			
" (edge & end).....	110 00 @ 115 00			
Building 4 50				
sewer add 1 00				
hollow, add 1 35				
Enam. Imp. Bk.....	125 00 @ 145 00			
Enam. Domes.....	70 00 @ 85 00			
Select Red Sand.....				
Mold.....10 00				
St. Louis Hyd'le				
Press.....27 00				
Collinsville, do				
.....22 00				
Findlay, do 22 00				
Chicago, do				
assorted shades	16 00 @ 20 00			
Chicago, do				
Brown.....24 00				
Chicago, do Red				
Roman.....24 00				
Chicago, do Br'n				
Roman.....27 00				
Bushnell Buff				
.....25 00				
Not sold.				
75 @ 1 00				
75 @ 1 00				
2 50 @ 2 00				
2 50 @ 2 00				
2 50 @ 2 00				
2 50 @ 2 00				
2 50 @ 2 00				
3 75 @ 4 25				
2 90 @ 3 20				
Not sold.				
2 80 @ 2 90				
3 10 @ 3 30				
2 75 @ 2 90				
2 85 @ 3 00				
2 75 @ 3 25				
6 00 @ 7 00				
9 00 @ 10 00				
Not sold.				
45 @ 55				
45 @ 55				
Not sold.				
Not sold.				
1 00 bulk, 75c.				
Not sold.				
Not sold.				
1 65 @ 1 75				
1 75 @ 1 90				
12 @ 20				
30 @ 35				
1 00 @ 1 25				
In Yard.				
Sq. Hard 800 @ 9 00				
" @ 7 00				
Salmon @ 5 50				
Sq. " @ 5 50				
Light Stretchers				
9 00 @ 11 00				
Medium " "	@ 12 00			
Red " "	@ 12 00			
Dark " "	@ 12 00			
Pressed " "	@ 17 00			
Paving " "	11 00 @ 13 00			
Second " "	@ 12 00			
Third " "	@ 10 00			
Dom. { @ 65				
" @ 85				
1 30 @ 1 50				
S.H. Fa' 1 20 @ 1 50				
2 85 @ 3 15				
2 30 @ 2 60				
2 85 @ 3 15				
2 75 @ 2 85				
Bel'n 2 10 @ 2 40				
Hemmoor				
2 50 @ 2 75				
2 75 @ 2 85				
Josson				
2 00 @ 2 75				
3 00 @ 3 25				
2 75 @ 2 85				
B. Egl. 2 50 @ 2 75				
3 00 @ 3 50				
6 50 @ 7 00				
8 00 @ 9 00				
White Lime P. bush				
25 @ 30				
White Mash				
1 25 @ 1 50				
1 00 @ 1 00				
Not sold.				
Not sold.				
Not sold.				
Not sold.				
Not sold.				
1 50 @ 2 25				
1 75 @ 2 50				
30 @ 35				
30 @				

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