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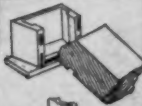


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VOL. XLIV

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JUNE 9, 1894.



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ALREADY architects are murmuring at the overcrowding of the profession and wondering how they are to make a living in view of the number of young fellows who, each year, are graduated from the technical schools, each more or less determined to establish a practice of his own in the shortest practicable time. There might be, if our country were older, a very real danger that the architects might find less and less work for them to do, but the architectural school would be only one of three causes and perhaps less dangerous than the other two. These two dangers lie in the two facts, that it is the effort of every architect nowadays to build indestructible buildings — and a measureable success is being achieved in this, — and that buildings are begun, finished and delivered to their owners with unexampled and increasing rapidity. The result is that within a few years vast sums of money have been transmuted into practically imperishable building improvements and it will be long years before the surplus interest on such investments can accumulate another building fund. Fortunately, money is but a token of value received and what the same man may not again accumulate may fall into the hands of another, who may be willing to entrust its spending to the same or another architect. Still the increasing output, so to call it, of the architectural school is a thing to be considered attentively, for it seems not impossible to overcrowd what is in many ways a new profession. A new architectural school is, therefore, a factor of the professional future to be welcomed only if it can prove beneficial to others than the few who can derive a personal benefit from its curriculum.

HOW far Harvard University is justified in establishing an architectural department can only be proved by lapse of time, and it is open to doubt whether this department has been established because there was felt to be a need or because the authorities, in pursuing their policy of rounding out their field of operations and justifying the rather modern name of their institution, felt that it would be a good thing to incorporate such a department with their other branches of instruction. If the new departure was to be made at Harvard at all, we are disposed to regret that the department was made an adjunct of the Lawrence Scientific School and was not frankly

added to the courses in the College proper, where in some ways it more legitimately belongs, or, rather, where there would be a better chance for its growth in the one needed direction, that of architecture as an art pure and simple. There are enough architectural departments now doing excellent work as attachments to scientific schools — we believe that every one of the older schools is attached to the scientific side and not to the side of arts and letters, so that graduates can only receive the degree S. B., and not A. B., which seems more befitting a practitioner of the arts. It is true that the difference between the freedom of action of the ordinary undergraduate and the regular hours and consecutive work of the architectural student over the drawing-board would be more marked if the department were connected with the College proper. But so much the better, so much the greater isolation, so much the better chance of expanding in the one direction in which it is really desirable that it should expand, if it is to become a really desirable factor in architectural education. The need of the hour is the cultivation of the senses, not of the head and fingers only. Sooner or later there will be established somewhere and by somebody a thoroughly equipped and self-contained academy of fine arts, and, if it is conceived on proper lines and broad-mindedly conducted, it will inevitably be a success and as inevitably work an injury to the prosperity of those architectural departments which are now adjuncts of scientific schools, by withdrawing from them those pupils who feel the inborn capacity to fit themselves for the higher reaches of the profession, but find the curriculum of the scientific schools somewhat cramping and restraining. If Harvard University finds itself unable to establish such an independent school of fine art, it seems to us that it would be wise in allowing its new department to be developed in that direction so that it may be better able to join hands with the coming greater institution.

IN placing the department under the charge of Mr. H. Langford Warren, and in allowing him to choose as his chief assistant Mr. George F. Newton, the University has shown excellent judgment, if it is the purpose to allow the department to develop on its architectural side; but these gentlemen can only make a success of their undertaking if they, from the outset, set their faces resolutely against allowing their department to become the haven of regular and special students whose intellectual effort, during their career, is mainly confined to the few hours' consideration at the beginning of the year, needed to determine which of the multifarious elective courses is likely to prove the "softest thing." The popular delusion that the practice of architecture is a nice, easy, clean and gentlemanly pursuit is likely to lead a great number of young fellows with more money than talent, brains or perseverance to elect the new course, and if a success is to be made, it can only be through subjecting these human grasshoppers to the bitter disappointment of finding that they have let themselves in for more serious and sterner effort than any other body of students connected with the University is subjected to. That there is no royal road to architecture should be made patent to authorities and students alike by the sharpest and most persistent use of the pruning-knife.

WE take pleasure in calling attention, as requested, to the establishment of a National School of Electricity, with headquarters at Chicago, under the direction of Professor J. P. Barrett, Chief Electrician for the City of Chicago, and late Chief of the Department of Electricity of the World's Columbian Exposition. The school is to be conducted partly by correspondence, and partly by classes. A certain number of students, living in or near a given town, will be formed into a class, to which an instructor will be assigned. The instructor will be provided with instruments and apparatus, and such diagrams as may be needed for class-work, and suitable blackboards for giving explanations on the spot. In order that the lessons may be uniform, a "lesson leaf" will be issued each week, containing detailed information, tables, etc., relating to a single subject, with review questions on the previous lesson. The school course consists of forty weekly lessons. It is not intended, as the prospectus very frankly informs us, to take the place of such a course in electrical engineering as

is afforded by the great technical schools, but there is no doubt that hundreds, perhaps thousands, of boys and girls just out of the high schools, and of young and ambitious men, with a taste for such knowledge, now engaged in employments which do not occupy their minds as they wish, will find it of great service; and it is to these pupils that the instruction is to be adapted. The tuition fee is certainly moderate enough, — twelve dollars and a half for the course of forty lessons; but it is proposed out of this, not only to pay the salaries of instructors, and the other necessary expenses of the school, but to set aside a certain amount as a scholarship-fund, which will be used to pay the cost of a complete electrical education, at some first-class technical school, of those pupils who, at the annual class examination, show themselves most deserving of such a reward. The names of the members of the Faculty include many of the highest rank among electricians, and such instruction as they will dispense cannot fail to be of great value. Persons wishing for further information should apply to the Secretary, Mr. J. Allan Hornsby, Monadnock Block, Chicago.

MR. H. V. B. MAGONIGLE enters upon his tour of service as holder of the Rotch Travelling Scholarship for the next two years under rather unusual circumstances. Some six weeks ago, after the usual prolonged and comprehensive examination, the scholarship was awarded, without a dissenting voice, to Mr. Magonigle, but no sooner was the award announced than a vigorous protest was entered by the examiner in French, who declared that inasmuch as the scholar-elect had not passed in French, he should not have been allowed to try the final examination, that in architectural design, in which he had actually acquitted himself with signal merit. In addition to this there was at once set on foot a disagreeable murmur, charging favoritism, since the fortunate contestant had been a pupil in the office of one of the founders of the Scholarship. This undertone development of the meanness that humanity seems unable to outgrow, and the fact that the strict letter of the conditions had not been adhered to by their committee, caused the trustees of the Scholarship-fund to declare that they could not recognize the award, and that the examinees must undergo a second test. In other words, for the sake of removing, once for all, the possibility of upholding any charge of favoritism or a lack of strict adherence to the rules, the innocent competitors were made the victims of a second inquisition, in which the original victor had more to lose than did his competitors. Fortunately, the superiority shown in the first examination was upheld in the second one, and, but for the unfortunate loss of time and mental tax, no injustice has been done, while the victor in both contests has won a second leaf of the coveted laurel. As a matter of fact the difficulty was caused by the French examiner himself, who failed to keep to the rules and make his report to the committee at the proper time, and the committee, who had never known any competitor to fail to pass in French, which is relatively the least important of the examinations — being marked only five on a scale of one hundred, finding that Mr. Magonigle's marks on the other branches were satisfactory, felt themselves justified in allowing him to take part in the finals.

WE find in the *Builder* a short description of one of the decorative paintings in preparation for the Boston Public Library, which is now on exhibition at the Royal Academy in London. It seems that the work shown is "a portion of an arched ceiling, and lunette underneath it," and it is suspended under the ceiling of one of the Royal Academy galleries, apparently in about the position it will occupy in the Library. The *Builder* says that it is explained in the catalogue by a quotation from Psalms cvi, about "serving idols," and thinks that it is "an allegorical representation of Egyptian Paganism, treated in a completely decorative manner, with a great deal of symbolical ornament, partly applied in gilt relief." It is not surprising, in view of this rather startling description, to find that the *Builder* thinks that "it is difficult either to understand the treatment of this large work, or to judge of its effect;" although, "It appears to be a powerful piece of work of its kind." When a critic, especially one with such trained judgment, and so little hesitation in expressing it, as the critic of the *Builder*, finds nothing more to say of a picture than that it is "large;" and "appears to be a powerful work of its kind;"

without mentioning whether it may not be of a bad kind, the public may safely fall back on its own impressions; and there will be great curiosity to see it in its place in Boston. The *Builder* thinks that the name of Mr. J. S. Sargent "is perhaps the last name that any one, judging from the character of the work, would have thought of connecting with it." Whether this is intended for a compliment or not, our readers will have to divine for themselves.

A CURIOUS discussion is going on in the St. Louis papers. It seems that sidewalks of artificial stone, under the name of "granitoid," are being laid in the city, and some one, offended at the glare of the white material, wrote to the newspapers to advocate the addition of coloring matter to it. This proposition brought forth what the original writer chose to call "ignorant opposition" from individuals whom he denounced as either "yaller dog Philistines," or "beneficiaries of the granitoid ring." It may be imagined that an aesthetic discussion carried on in this vein does not attract the class of participants best qualified to give valuable opinions, so that the question of what color shall be formally adopted by the city is not likely to be soon decided; but, for brightness and cheerfulness, particularly at night, the white sidewalks are so much superior to those of any other color that it is not likely that they will be soon abandoned.

BEFORE our next number is published, we shall hope to have received the account of the proceedings of the Church-Building Congress, which met at Berlin, May 24. According to a late number of the *Deutsche Bauzeitung*, the Congress promised to be a very successful one. So large a number of persons had responded to the circular of invitation, and asked for tickets of admission, that, even with a liberal allowance for those who would, at the last moment, be prevented from using them, it was estimated that there would be at least four hundred persons in attendance. Naturally, most of these would be architects and clergymen, but a considerable number of persons of other professions had applied for tickets. It is a gratifying evidence of the interest which the German Governments generally take in matters of the kind that nearly all the constituent kingdoms and principalities of the Empire had appointed representatives to attend the Congress. According to the programme, the first event was to be a preliminary reception, held in the great assembly-hall of the Anhalt Railway Station, on the evening of May 23, to afford delegates an opportunity for meeting old acquaintances, and making new ones. The next day, the work of the Congress was to begin, in the so-called "Neue Kirche," after an opening address by Dr. von der Hude, with a series of discourses on the history and development of Protestant church-building, by various theologians and learned persons, followed by what ought to be a very interesting paper, by Professor Gurlitt, of Dresden, on the modern problems to be solved in the design of Protestant churches. After this, general papers, with discussions, were provided for. As usual among the friendly Germans, the evenings were to be devoted to some sort of social entertainment. The evening of the 24th was assigned for a reception in the great hall of another railway station, — that in the Askanische Platz; while the afternoon of the 25th was to be devoted to visiting the newer churches of Berlin. It is to be regretted that, so far as appears, neither the architects nor clergy of this country were to be represented. A number of Dutch, Swedish, Danish and Swiss architects had applied for tickets, but England and the United States do not appear on the list of participants. It is true that in neither of them is the Lutheran discipline of so much importance as on the Continent, but a great deal is to be learned from the sensible and logical planning of the German church architects. Perhaps, taking a hint from the Berlin conference, it might be possible for England and America to arrange, later, for a church-building Congress of their own. The requirements of the service are almost exactly the same in all English-speaking countries, and, while our English cousins might find our corrugated-iron tabernacles as open to criticism as we do their modern-mediaeval churches, inclusive of the thirteenth-century air which Mr. Warner found to be the correct aliment for the lungs of the worshippers in such edifices, the mutual criticism would be beneficial to all parties concerned.

STYLE.¹—VI.

THE brief investigation that we can now make of the laws of construction followed by these artists will surely enable us to recognize, in the Cathedral of Paris, all the necessary qualities that constitute STYLE. On constructional grounds, the pointed arch plays such an important rôle in the architecture under consideration, that we are forced to pay especial attention to it. Until the beginning of the twelfth century, barrel-vaults were employed and the transverse ribs consisted of one or two rows of arch-stones devoid of any moulding or ornament; sometimes, the lower row had a semi-cylindrical form; from this time the *berceau* was groined or pointed, the transverse ribs were composed of two rows of arch-stones, the upper of which, in the first half of the twelfth century, was adorned with a torus or a groove, to relieve the arris. It was not until the close of the twelfth century that the transverse ribs came to comprise a bundle of tori separated by cavettos; but, about the middle of the thirteenth century, these ribs took three rows of arch-stones, while the ogives had but one. The object of this change in the construction of the transverse ribs was to strengthen the resistance of the vertical pressure of the most loaded parts; for the doors, which were provided with lintels, the archivolts served as discharging-arches. The construction, therefore, consisted of transverse ribs, diagonals and *formerets*. These projected and were built of larger stones than the vaults themselves, which were filled-in with unhewn stones and were independent of the structural system, that is to say, formed genuine spandrels. In the middle of the twelfth century, architects adopted the pointed form for windows in Ile-de-France; these were usually placed directly in the *formerets*. At Notre-Dame, every other one of the middle pillars, between the two side-aisles, is more robust than the one next it, because it has a greater weight to bear. Flying-buttresses date from the twelfth century; previous to this time, the churches had timber roofs, with the exception of the apse, which was covered with a hemispherical dome in masonry-work; after unsuccessful efforts to make use of the half-barrel vaults inherited from the Romanesque epoch, which rendered the excessive thickness of the walls useless where there was no thrust, and inadequate at the points where the transverse and diagonal ribs ended, flying-buttresses and buttresses, tipped with pinnacles, were introduced. The thrust of the ogive arch is established by reason of the slipping of the stones from the springing half-way up, so that the spaces between the *formerets* became very slender, as of no account, when the flying-buttress was contrived to counteract the thrust of the vaults and their framework of ribs; but the normal buttressing of the vaulting possessed the defect of bringing too much weight on the piers; this led architects to adopt a system of oblique buttressing. Every part of the edifice was calculated with a view to securing a maximum of resistance for a minimum of material, a difficult and logical solution of the problem of obtaining a good construction cheaply.

As for the decoration, that was also wisely employed and every arch-stone, in the noble epoch of the style, contained in the mass of its stone the development necessary to its ornamentation. After having copied Roman models, sculptors abandoned these, as they no longer satisfied the needs of the time, and turned to Byzantium in search of new types. However, the monks of Cluny, who in the matter of drapery had been influenced by paintings and ivory-carvings brought from the East by the Venetians, succeeded in imparting some life, in physiognomy and attitude, to their figures. Such was the starting-point of numerous efforts, which, after a more thorough study of nature, led the sculptors of the Middle Ages to an expression more in conformity with the national taste.

Painting, in the Gothic period, as well as sculpture, formed one with architecture; its earliest examples had been inspired by the Byzantine style, but it had afterward drifted away from this source and had approached more nearly to the teachings of nature. In the twelfth century, the backgrounds are light, and the subjects are expressed by a line and a few hatchings, in white to indicate the light, while the shadow is represented by a few hatchings in brown; a brown line always indicates the drawing and separates the colors, which are: yellow-ochre, light red-brown, several shades of green, rose-purple, light violet-purple and light blue.

Gold is introduced only for halos, stitches or embroideries; it is never employed as a background, as was the case in the Byzantine style. Two colors of equal value are rarely placed side by side without being separated by one of different value. In the thirteenth century, the system of tones changes—the backgrounds are deeper—an intense blue, dark red, and sometimes black or embossed gold. The predominant colors are blue and red; green serves as a transitional shade; yellow-ochre is used only in small parts, and the colors are separated by a very deep brown or even black line; the modelling blends with the color employed; in a word, the vigor of the coloring is being accentuated more and more, and this is still true at the close of the thirteenth century, so that the flesh and drapery are lighter in tint as the backgrounds become bolder. The latter, after having exhibited a very timid and harmonious scheme of color in the twelfth century, and later a more vigorous one, are now covered with thin half-tones.

The colors are light rose, light green, rose-yellow, light blue, white, gray white and greenish white; the draperies are sometimes polychrome and the flesh white. In the fourteenth century, painting loses somewhat in warmth, but the drawing is more accurate and the backgrounds, simple as they have been, are now loaded down as though with real mosaics. The paintings of the twelfth century were executed in fresco or with gum, while those of the thirteenth were done with egg or a size made from parchment, or with resin. The subjects produced no illusive effects, for perspective was wanting until the sixteenth century. At the close of the twelfth century, painters found a new field for their art in its application to glass.

The finest productions in glass-painting date from this period. The colors in use were blue, yellow, red, green, purple and white; but, while artists employed the same processes here as in their mural paintings, they calculated carefully the effect of the different shades as seen side by side through a transparent medium; moreover, they succeeded in taking advantage of the defects of the material, so as to add to the vigor of the modelling; and this enabled them to attain to such a degree of perfection that fresco painting appears to have been somewhat neglected for painting on glass, from the thirteenth century. In the stained-glass of the thirteenth century, the backgrounds are blue, or red, or yellow, while the ornaments and subjects are in two greens, two purples and two light blues, with different shades of white. The blue backgrounds were painted along the edges to check the radiation of this color; on the red backgrounds, only a little blue was introduced near them, in order to avoid the harshness and coldness that result from liberally mixing these two colors. The leads, geometrically arranged, now followed the artist's design, or his fancy, and assumed a perfectly free disposition. The stained-glass windows of the sixteenth century lack light; they are false in tone and of a red hue.

Comparing this review of the highly rational, constructive and decorative systems of Gothic architecture with the end that Gothic masters had in view, one sees that the *purity* of the forms fixed by them and the *propriety* of the destination of the edifice, as well as the *precision* and *clearness* with which they responded to the requirements of the programme, in a manner so *natural* and by means satisfying the smallest demands of *appropriateness*, render Notre-Dame of Paris eminently a work of STYLE. Thus, the materials, following their nature and the laws governing them, compared with the use to which each was called to contribute, according to its function in the *ensemble* of the work lovingly longed for, clothe an appropriate form; such had been the secret of the great artists of all ages, such was the philosophy of mediæval artists—a philosophy whose expression is so clearly detected in the so-called Gothic monuments, and which had stamped upon them those indispensable qualities, without which no production can endure the test of time.

Archæology and history tell us that the corner-stone of Notre-Dame was laid in 1163, by Pope Alexander III, and that the dedication of the high-altar took place in 1182. The Cathedral was begun by Maurice de Sully, archbishop of Paris; he continued the work until the time of his death, in 1196. It was carried on by his successor, Eude de Sully, from 1197 to 1208. The western façade was commenced about the year 1215, toward the close of the episcopal reign of Pierre de Nemours. In 1223, on the death of Philippe-Auguste, it had been completed as far as the open gallery; the towers were finished in 1235. At this time, the church consisted of a

¹ From the French of Léon Labrousse, in Planat's *Encyclopédie de l'Architecture et de la Construction*. Continued from No. 962, page 97.

single nave terminating in a circular apse, the whole surrounded by a double side aisle, with a gallery above the inner one of these; the flying-buttresses were constructed with two arches. The fire of 1240 destroyed the woodwork, after which, in 1245, the size of the high windows was altered and the flying-buttresses were rebuilt with one arch; then chapels were reared on either side of the nave, between the buttresses. In 1257, under the reign of Saint-Louis, Jean de Chelles prolonged the transepts, and in 1296, the series of chapels was completed by carrying them around the apse.

What practical method have we adopted to determine the style? The monument, a tangible, visible object, is the starting-point of our investigations; the characteristic, which gives the sentiment, is our goal. We have, then, analyzed the edifice to obtain the characteristics. If, on the contrary, the sentiment revealed to us by the characteristic, serves as our starting-point, the tangible, visible monument becomes the goal. In this case we make an analysis of the sentiment in order to reconstitute the monument itself synthetically.

To sum up, we will, then, say that the following is the method proposed for an archaeological inquiry into architectural style, from a philosophical standpoint; we believe also that it can be employed hereafter for the creation of an architectural style, should a new dominant need make itself felt:

ANALYSIS OF STYLE.

General qualities:—Purity, propriety, precision, clearness, naturalness, appropriateness.

Laws of construction:—Stability of the materials employed according to their natural fitness.

Laws of aesthetics:—Rational knowledge of beauty, leading through truth to an analysis of the meanings, in order to arrive at the sentiment, and discover the characteristic.

Archæology:—Confirmation of the results by historic facts.

SYNTHESIS OF STYLE.

Laws of aesthetics:—The characteristic being obtained from the sentiment experienced, arrive at the truth through an analysis of the meanings, thence reaching a rational knowledge of beauty.

Laws of construction:—Stability of the materials employed in accordance with their natural fitness.

General qualities:—Purity, propriety, precision, clearness, naturalness, appropriateness.

Archæology:—Confirmation of historic facts by the results.

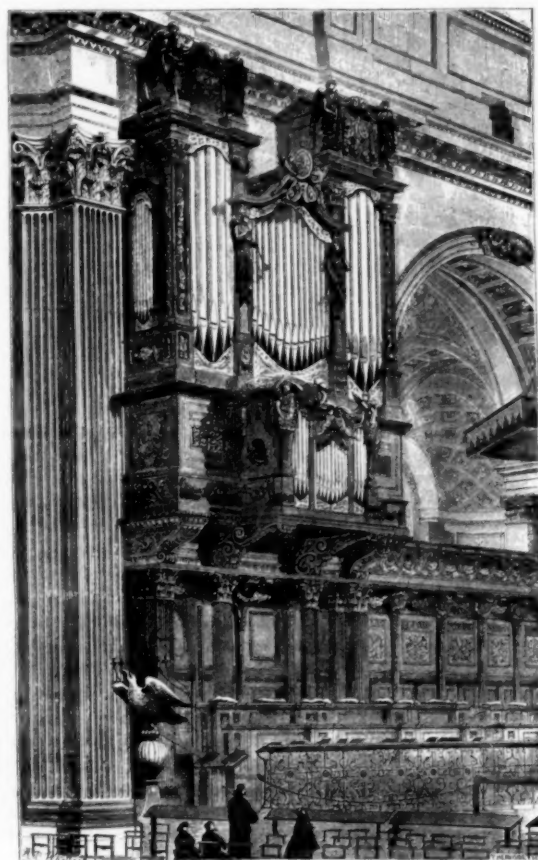
It is not always equally possible to make an analytical or a synthetical study of an edifice, although the one must always be a verification of the other; the method to be employed depends upon the state of preservation of the monument. When it is so well preserved as to enable the student, on seeing it, to experience a sufficiently complete sentiment to restore it to its primitive condition, the synthetical method should be followed; if, on the other hand, the structure is so ruined as not to evoke a sentiment keen enough to image it at once in its former state of splendor, it is better to take it part by part and follow the analytical method.

It may be said, in conclusion, that we of the nineteenth century are borne along by certain artists in a path where the fundamental principles and the characteristic of our architecture seem to have been set aside and superseded by eclecticism and lack of faith; while others are seeking originality in oddity and whimsicalness and are striving to vitalize their art by a total disregard of tradition, balance and frankness. Progress consists in moving toward the light, toward truth, so as to satisfy the demands of reason. It cannot, however, be gainsaid that there are a few artists at the present day who cling to truth, and are in the way of progress as here defined; their productions will furnish undeniable evidence of the style of the time, a style evolved from our mode of living, from our needs and hopes, from the economic ideas brought into play in our means of satisfying these, from our political life, both domestic and foreign, so wonderfully developed during the second half of this industrial rather than agricultural century, and whose originality is due to the novel interpretation of its programmes. These influences and currents have perhaps too deeply marked the works of our troubled period, in which the struggle has grown, while undergoing a transformation through the disappearance of individualism before a common collectivism; but whenever freedom and wisdom have presided over the execution of our programmes, we can boldly say that posterity will

recognize our arts by these peculiar features and will clearly read in them our dominant endeavors, without hesitating to assign a date to such works, stamped with the seal of the style.

LEON LABROUSTE.

THE POSITION OF THE CHOIR AND ORGANS IN CHURCHES.¹



The Choir Organ, St. Paul's, London, England.

IN Mediaeval times, and, in fact, as a general rule, until some thirty or forty years back, the organ gave an architect little trouble. As long as it was inclosed in a case some 10 ft. by 5 ft., and about 16 ft. high, it could be placed almost anywhere, and it did not demand consideration in planning a church; but when the same thing becomes a structure 20 ft. square and 30 ft. high it can no longer be ignored, and provision must be made for it or it will become a serious disfigurement to the building. The difficulty must be boldly grappled with. It is simply useless for an architect to complain of the size of an organ or to suggest that it should be made smaller, so as to occupy less space; he might just as well complain of the size of a dining-table when he is designing a dining-room. The thing is wanted, and must be provided for, and the architect must discover some means of meeting the difficulty. I acknowledge that it is often a serious difficulty, but there is not the slightest chance of its vanishing or even becoming modified, as in all probability organs will get larger and larger as time goes on. All attempts at decreasing their size have hitherto proved complete failures.

There are, of course, several things to be taken into consideration in selecting the position for an organ. The first, and most important is that the instrument should be placed where it will be heard to the best advantage. The second is that it should be in such a situation that it may be serviceable both for the choir and also for congregational singing. The third, that it should be placed where it will be secure from injury arising from damp, excessive draughts, variations of heat and cold, and, especially, leaky roofs: the gutter of a roof should never, under any circumstances, be carried over an organ; yet, in two new churches which I have lately seen, the organ is placed under the valley between two roofs. In another church, recently restored at great expense, I noticed a few weeks since that the gutter over the organ was insufficient; the consequence was that the open diapasons were receiving a regular *douche*, and the water was running out of the

¹ A paper, by H. W. Brewer, read before the Architectural Association, February 2, 1883, and published in the *Builder*.

lips of the pipes! I pointed this out to the sexton who was showing me over the church, and he said, "Well, sir, our organist *do* complain. A few Sundays back the water came down on his head during morning service; but what can be done? Our parson has spent a deal of money over that roof!" I suggested that at any rate the organ ought to be removed. Lastly, an organ must be placed in such a position that it is, if not an ornament to the building, at least no disfigurement to it.

Now, there are not many positions which a large organ can occupy in a church so as to fulfil all these conditions, and it is not surprising that it should have created a new feature in church architecture,—the organ-chamber,—which seems to be popular amongst Anglican clergy, as it is to be found in very many new churches, and has been added to not a few ancient ones, sometimes, I am bound to say, not to their improvement. It is, in fact, greatly to be doubted whether it is always advisable to remove an organ from the western gallery where it has formerly stood, to place it in a kind of black-hole at the side of the chancel. This is often done under the idea that the position is more in accordance with ancient usage; but in point of fact, while there is plenty of Medieval authority for the western choir and organ-gallery, there is none that I know of for an organ-chamber, which is an essentially modern feature in church architecture. Ancient organs in western galleries occur at Amiens Cathedral, the Cathedral of Constance, St. Mary's, Lübeck, St. Anne's, Augsburg, and St. Ulrich's, Augsburg; and although the organs have disappeared or have been rebuilt, ancient western organ-lofts are to be seen at St. Stephen's, Vienna, Ulm, Liège, St. Mary's, Würzburg, Ochsenfurther, the Carmelite Church at Boppard, St. Pantaleon, at Cologne, etc. The last-named example, however, is so singular in its arrangement, that it may have been removed from some other position.

The reason for placing the organ in an organ chamber is that it may be near the choir, who are now usually placed in the chancel. Whether the choir of laymen was, in the Middle Ages, commonly placed in the chancel seems doubtful. That the chancel was nothing like so universal a position for the singers as is generally supposed, seems proved by the arrangement of many ancient churches; for instance, in the old Abbey Church of Cornelimünster, near Aix-la-Chapelle, the choir, with its stalls and complete ritual arrangement is to be seen in the western gallery. The same is the case in one of the earlier of the abbey churches, that of Seligenthal, near Landshut, where the front of the choir gallery is adorned with a series of beautiful old pictures, and the interior fitted with regular choir-stalls. The same arrangement is to be noticed at the Abbey of St. Maximin at Trèves, though, unfortunately, here the whole of this interesting portion of the church is much modernized. At the minister church at Roermond, the arrangement of the choir was very singular; it was divided into two parts, each of which occupied one of the triforia of the nave. Each triforium choir terminated to the east in a small apse, bracketed out into the transept, containing an altar, both of which still exist. The original high-altar also exists, not in the great apse, but in a smaller apse projecting from its eastern extremity. Mr. Cuyppers, who has very carefully restored this church, believes the position to be original. There is a rather later western organ-gallery, but the whole is thirteenth-century work. The curious church called the Alte Pfarrkirche, at Ratisbon, contains a singularly small chancel, only about 10 ft. square, but has a very deep choir gallery at the west end. The stalls have been removed, but the marks of where they were fixed can still be traced; the date is thirteenth century. At Coburg, there was evidently a western choir in a gallery, with a little apse built out over the principal doorway; the arrangement is very picturesque externally. At Limburg-on-the-Lahn, the great triforium, which is vaulted and furnished with several altars, is called the "männerchor"; whether it really served the purposes of a choir is a question which it is not possible to settle, but the name would seem to suggest it.

Notwithstanding the fury which has of late years been exercised against western organs and choir galleries, there is much to be said in their favor, and it would perhaps be well to hesitate before removing them, especially in old churches. The west end of a church is an excellent situation for a large organ, both musically and as regards its appearance. The splendid examples at Lübeck and Bois-le-Duc, and St. Anne's, Augsburg, serve to show what a fine feature can be made of an organ in this position. Musically speaking, also, the western gallery is a good position for a choir, and the arrangement lends itself very well to congregational singing. Much good carving and excellent work has been destroyed by the wholesale removal of west-end organ-galleries. I cannot help also regretting the destruction of the numerous fine Renaissance organ-cases which have disappeared, together with the western organ-galleries.

The organs in cathedral churches, in England at any rate, were generally placed upon the chancel or rood-screen, and it is impossible to suggest a better situation for the instrument, as every single favorable condition is here complied with. The organ has plenty of space about it, and it is consequently sure to sound well. It is away from any walls which could convey its sound out of the building; it is excellent for choir-work, and also for congregational purposes; it is more safe from damp and draughts than in any other part of the building, and less liable to variations of temperature. The position has also the sanction of antiquity, as it is

recorded that there were organs upon the rood-screens of Durham, Peterborough, York and Winchester cathedrals, long before the Reformation. In Continental churches a few organs still exist in this position. The Cathedral of Bruges, and that of St. Gommaire at Lierre, are cases in point, though, singularly, in the latter church, the organ is sunk into the screen in such a way as to be invisible from the nave of the church. The removal of organs from choir-screens has been greatly in favor of late years, but I trust to live to see them all replaced in their former position. It seems that King Charles I inaugurated this movement by ordering the removal of the organ in York Minster, because it prevented the great east window being seen from the nave. It was, however, subsequently replaced.

When the organ is placed upon the choir-screen, one of two things seems to suggest themselves; either the congregation should be excluded from the choir, or the singers should be placed in the organ-gallery. The present plan of mixing up the congregation and singers in the choir-stalls of the English Cathedrals, has many great objections. In the first place, it is not edifying to look down the throat of a man just opposite who is singing a solo, nor is it advisable to recognize too distinctly any individual singer in a church. One may have heard him sing music of a very different character, under very different circumstances, which it is undesirable to associate with his present performance, and yet the mind cannot help making this association, to the entire destruction of all solemn thoughts and religious feelings. It is also a great advantage to every choir to have a conductor, and not to trust too implicitly to the organist. Where music in the style of Palestrina is sung unaccompanied, a conductor becomes absolutely necessary. Now a conductor is strangely out of place in the middle of a congregation.

The destruction of choir-screens, both here and on the Continent, is to be regretted. Not only are these screens great ornaments to churches, but they are of considerable use for musical purposes. The magnificent rood-screens at Münster and Bois-le-Duc were, when I first recollect them, used positively as choir-screens, and the effect was remarkably fine. Both have now, unfortunately, been removed. I am told that the screens at Tournay and Bruges are threatened with the same fate, chiefly because they are not Gothic! Some years back the choir of Norwich Cathedral sang from the screen, and I fancy there must be ancient authority for this usage. In France the rood-screen is called "*jube*," and I cannot help associating this name with the first word of the Complin service,—"*Jube, domine, benedicere*." Possibly the Complin service may have been sung from the rood-loft, and hence the name "*jube*," as given to this feature of church architecture. In Germany the rood-screen is called by a different term in almost every church. At Münster it was called "*Apostelgang*,"—I fancy, from the statues of the Apostles which adorned it. At Halberstadt it is called "*Bischofsthuhl*" or "*ambon*"; whether it really served as a bishop's throne or no, it is impossible to say. At Hildesheim it is called "*Letner*," a word closely akin to our word *lectern*,—probably because the Gospel was read from it. It should be noted that, although the rood-screen has generally been destroyed in France, yet the Gospel is always read from the place where it formerly stood. In some old descriptions of churches I have found the words "*pulpitum*," "*paradisus*," used to signify the rood-screen.

Another position for the choir is to the rear of the altar. It is certainly the most ancient of all positions, as may be seen by the arrangement of the basilican churches. It is an excellent position from every point of view, and remarkably convenient, especially in apsidal churches. The great difficulty, however, is the organ. In French churches, where this arrangement is not uncommon, there are generally two organs,—one a small instrument for the choir, and the other placed in the nave of the church for voluntaries and congregational purposes. The disadvantage of this is, of course, its expense, as it necessitates two organs and two organists. I am aware that there is an invention by means of which the same organist can play both organs at once by the application of electricity. It would be very desirable that this invention should succeed, but owing to the expense, or some mechanical difficulties, it has not met with the success which one could wish. I trust, however, that it will not be lost sight of, for, if it could be made thoroughly practicable, it would solve many difficulties, and it may turn out to be of the greatest possible value, both from an architectural and musical point of view.

The choir of Ratisbon Cathedral, which is justly celebrated all over Europe for its efficiency, consists of two separate bodies of voices, one composed of clergy, theological students, etc., who are placed in the stalls in front of the altar, and sing the plain chant; and the other of professional singers, who sing the harmonized music, and are stationed in the apse, behind the high-altar. The organ is immediately behind the reredos; it is a small, but singularly good instrument, so far as it goes. Above the stalls, on either side of the choir, are stone galleries bracketed out, which are reserved for the use of the clergy of distinction who are unconnected with the cathedral; this seems to me to be a very excellent idea,—one which might well be adopted in other places,—because it obviates a difficulty. Strangers ought never to be admitted into the stalls of a cathedral under any condition whatever; yet it is desirable to have some place for foreign ecclesiastics visiting the church. While I

was at Ratisbon I noticed that one of these galleries was occupied by an Armenian bishop and his attendants. I must here call attention to a somewhat remarkable, but very successful, experiment which was made at this cathedral some years back. The plan of the cathedral is remarkably symmetrical, and when it was restored, numerous positions for the professional choir and the organ were suggested. Both were removed from place to place, to discover where they would be most effective. The organ, which is, as I have said, a small instrument, was found to be totally insufficient everywhere, except when placed in the apse, where, owing to some extraordinary acoustic properties of the building, it has the effect of a large and powerful instrument. It was also discovered that the same effect was produced by the choir, so that a body of some twenty voices was found to produce the effect of a very large choir; it was, however, found necessary to play and sing the music very much slower than it would be ordinarily taken; a false note or a breakdown would, of course, be multiplied fourfold, and what would be the result of a cypher on the organ I tremble to think. Such things, however, do not happen with the Ratisbon choir, and I do not think that anything could surpass the superb unaccompanied music of Palestrina as rendered by this choir, and in this cathedral; it seems to wind round and about the lofty columns and in and out of the stately arches in a way that baffles all description. I went to the church over and over again before I could discover where these grand waves of harmony proceeded from. This is the only case I know of in which the choir and organ have been placed and arranged with a view exclusively to the acoustic properties of the building, and yet one would naturally have expected to find such a proceeding rather the rule than the exception. The arrangement of organ and choir behind the high-altar is not uncommon in France, and wherever I have heard it, the musical effect is remarkably good.

In cruciform churches one of the transepts is an admirable position for the organ. A very fine and effective instrument has been erected in the south transept of Worcester Cathedral.

The aisles of a church are not a good situation for organs without they are like those in the German churches,—remarkably lofty. Ancient organs in this position are to be found at St. Afra, Augsburg; at St. Stephen's, Vienna; at Nordlingen, in Suabia; at Ingolstadt, in Bavaria; and at the Cathedral of Erfurth. The organ-lofts in each of these cases are very charmingly-designed; all these churches, however, possess an organ at the west end in addition to that situated in the aisles. There is a gallery at the west end of the north aisle of Winchester Cathedral which was probably formerly an organ-loft, though we know that the principal organ of that church stood on the rood-loft. Another very favorably ancient position for the organ was in a gallery bracketed out from the triforium of the nave. The ancient organs at Chartres, Freiburg, and Strasburg are in this position, and in all probability the so-called minstrels' gallery at Exeter was nothing more than an organ-loft. We know also that, in addition to four organs in different parts of the church, Durham Cathedral had an organ corbelled out from the triforium of the nave. Although it is a fairly-good position for a moderate-sized organ, yet it has several drawbacks; the organ is generally too high up to be quite satisfactory, either for accompaniment or as a solo instrument. Undoubtedly an organ sounds better when raised above the level of the heads of the congregation, but some of its tones must be lost when it is raised some 50 ft. or 60 ft. above the pavement.

Old organs were very frequently placed over the choir-stalls. That of the old Cathedral of St. Paul was in this situation, and the Cathedral of Milan and many Spanish and Italian churches are examples in point. Unless, however, the choir projects west of the transepts, so that the organ can stand under one of the arches of the crossing, there is scarcely sufficient space for a modern organ of large dimensions, and it has led to the very objectionable practice of cutting the organ in half, and placing one half on one side of the choir and the other half on the opposite side, the two being connected by trackers underneath the floor. It is useful, however, sometimes, to have a small organ over the stalls when there is a large organ in another part of the church. This is the case at Worcester Cathedral.

We sometimes, though very rarely, find old organs placed on the ground to the east of the stalls, and it is to be remarked that the only pre-Reformation organ-case existing in England, that of New Radnor Church, is in this position. Occasionally the organ is placed on a gallery at the back of the altar. Handel's organ at Whitechurch is in this situation; both organ-case and choir-gallery were designed by Wren. In some of the Lutheran churches in Germany the organ is over the altar. It is so at St. Anne's, Augsburg, but there the altar is the intruder, as the fine old organ holds its original position at the west end of the church, and a modern altar is placed under it. I think it was at Ludwigsburg I saw a singular three-decker arrangement,—not pulpit, reading-desk, and clerk's desk, as one sometimes sees in England,—but an altar below, a pulpit immediately above the altar, and an organ above the pulpit.

It is now customary to place the organ in a chamber at the side of the chancel. I find that this arrangement is almost universally condemned by musicians, and especially by organists. A correspondence upon the subject has recently taken place in the *Musical*

Standard, and the vote was strongly against these structures. A very eminent organist lately told me that it was about as bad a position as could possibly be found for an organ, and for his part he would as soon see the organ placed out on the opposite side of the street. I will here relate the objections to organ-chambers which I have heard advanced. (I am not now giving you my own opinion, but that of those who are far more able to judge of the matter.) It is advanced that an organ, like all other musical instruments, requires to be placed in an open and isolated position, and that it should never be inclosed or surrounded, except by its own case. We know that when a good pianist wants his instrument to sound well, he draws it away from the wall, and opens the top, so that there shall be nothing to intervene between the instrument and his audience. And it is even more important that an organ should be unencumbered by surrounding objects than a piano, because the organ consists of at least two parts or subdivisions, the most important of which is called "the great organ," and the less important "the swell organ." Now, the characteristics of the great organ "should be power, grandeur, and distinctness of tone, and the "swell" should be more subdued, sweet, and gentle, with a contrivance for producing variety as to *piano* and *forte*. The contrast between the various portions of an organ form one of its greatest merits as an instrument, and these contrasts are effected by certain mechanical means. The "great organ," for instance, demands a clear space to give forth its majestic tone, the "swell" requires to be inclosed, but to be able, when wanted, to break away from this inclosure and give forth a fine *crescendo*. This is effected by a contrivance somewhat resembling Venetian blinds. If there is a choir-organ, it should be clear, delicate, and very sweet in tone. Now, when the whole thing is shut up in a box,—and an organ-chamber is really little else,—much of this wonderful contrast is gone, because the very conditions demanded by the instruments are unfulfilled. But some people may say, "Oh, I like the subdued tone of the organ, and cannot bear to hear it when it is loud." An unfortunate organist wrote to the *Musical Standard* a few days back that he was absolutely forbidden by the clergyman to play anything but soft voluntaries on the instrument, and was ordered not to play Bach's fugues, because the same clerical authority considered them "undevotional"! Now to such people as this what I should say is, "Why on earth go to the expense of a powerful organ, when, for 8*l.*, you can get a harmonium which will be better suited to your taste, or want of taste?" It is surely folly to pay for grandeur of tone and power, and then shut them up in a box where they cannot be heard. Yet this is very frequently done. I have often heard really good organs, crammed into organ-chambers, which have, from their unfortunate position, had little more effect than a harmonium. Sometimes, to make matters worse, the organ-chamber will be enclosed by low arches and screens of wood or stone,—all forming a carefully-constructed sound-trap or gag. The fact is that when the organ is placed in an organ-chamber, the "great organ" is reduced to becoming a "swell organ," without the power of producing *diminuendo*, or *crescendo*. As a rule, also, organ-chambers are far too small to hold an efficient instrument, and the various parts have to be crowded together, and this is always bad. Mr. E. Turpin, the eminent organist, writing in the *Musical Standard*, gives 20 ft. by 20 ft. by 20 ft. as the smallest sounding-space for a church organ; yet how few organ-chambers are of these dimensions. Another defect in organ-chambers is the fact that they are nearly always damp. Now, damp is sure ruin to an organ. Then, also, an organ is difficult to get at when blocked up in a chamber. It is most important that every part of an organ should be easy of access, otherwise it may be absolutely necessary to take down nearly the whole of an organ to remedy some trivial defect which an organist himself could easily rectify if he could obtain access to that part of the instrument where the defect lies. The great organ at Bois-le-Duc is admirably arranged in this respect, being furnished with a staircase and galleries inside.

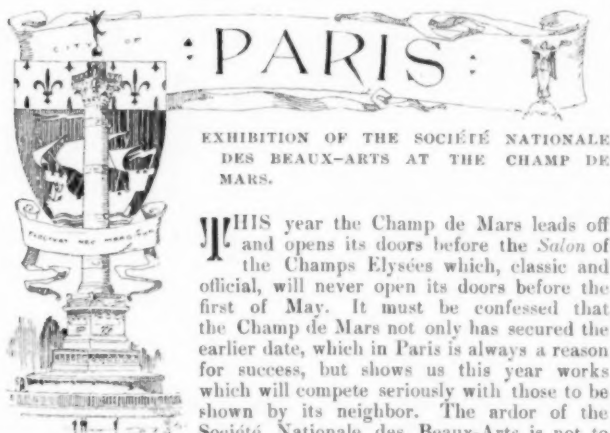
From an artistic point of view much has been lost by the organ-chamber, which is nearly always an ugly adjunct to a church. Directly organs are relegated to the chamber, they no longer come under the attention of the architect, and that singularly-beautiful article of church furniture, the organ-case, is abandoned. But as long as the organ occupies an important position in the building, the case must be carefully designed, and when one sees how magnificently the Mediaeval and Renaissance men treated that architectural feature, one cannot help wondering why it so rarely receives any attention at the present time. There are, I am glad to say, some few exceptions, and fine cases have been erected at Worcester, Hoare Cross, and Manchester, and have been designed for St. Margaret's, Westminster, and St. Martin's, Brighton. It is, however, very strange that, as a rule, the only portion of an organ which it is attempted to decorate are the pipes. This is certainly a work of supererogation, because the pipes of an organ are sufficiently handsome in their natural condition; whereas the deal-posts and match-boarding, which generally do duty for a case, would certainly be none the worse for what our Yankee cousins call "a lick of paint." If people are very rich and anxious to spend money upon an organ, they should have the pipes embossed. One paints iron to prevent rust, but it seems repugnant to one's feeling to paint tin. I do not, however, propose to detain you by remarks upon the artistic treatment of organ-cases, because this subject is dealt with

in a very complete manner by Mr. A. G. Hill, who, in his work upon the organ,—about to be published,—has illustrated and described all the most important examples at present existing in Germany, Holland, Belgium, France, England, and some few even in Italy and Spain. Most of these are reproduced from Mr. Hill's own sketches. By rare good luck Mr. Hill has also become possessed of many curious engravings of old organ-cases now destroyed. To the artistic value of the work he has been able to add much practical information gathered from personal experience as a partner in the well-known firm of Hill & Sons,—which is, I believe, the oldest firm of organ-builders in England.

I now come to the question, "What is the best position for an organ in a church?" And in consulting several eminent organists, I have nearly always received the following reply to the question:—"Either some central position as much isolated as possible, or a western gallery." Now, the objection to a western gallery is, that although it is admirable for sound, people, and especially the Anglican clergy, are opposed to having the choir so far removed from the altar. But I venture to think that the central position might be managed. It certainly suggests a choir-screen of some kind or other; and why should not the choir-screen be constructed in the form of a solid arch or bridge crossing the eastern bay of the nave? This need not occupy any space upon the ground-floor of the church, because the nave benches might be continued under it to its eastern extremity, or the choir might be carried on to its western extremity. If the first plan were adopted, the organist would sit in the gallery above the arch; but if the latter were carried out, he would play from the west end of the choir-stalls, under the arch. I have ventured to show how this arrangement might be carried out.¹ It may be objected that this scheme gives very great prominence to the organ, but I would ask, Why should not an organ occupy a very prominent position in a church? It generally costs more than all the rest of the church furniture put together. It is, as I have shown, becoming every day a more and more important adjunct to divine worship. It is capable of the highest artistic treatment and architectural development. Why, then, should it not be brought boldly forward and placed in a situation worthy of the king of instruments? In the Middle Ages the organ was regarded with the most extraordinary reverence, and we find St. Peter Damian, in his exquisite hymn "De Gloria Paradisi," enumerates the tones of the organ amongst the joys of heaven. Now, it so thoroughly describes what an earthly choir ought to be that I venture to quote it:—

"Novas semper harmonias,
Vox meloda concepat;
Et in jubulum prolata
Mulcent aures organa."

("Lovely voices make a concert,
Ever new and ever clear;
And in never-ending festal
Organs soothe the ravish'd ear.")



THIS year the Champ de Mars leads off and opens its doors before the *Salon* of the Champs Elysées which, classic and official, will never open its doors before the first of May. It must be confessed that the Champ de Mars not only has secured the earlier date, which in Paris is always a reason for success, but shows us this year works which will compete seriously with those to be shown by its neighbor. The ardor of the Société Nationale des Beaux-Arts is not to be denied, nor its progress since it was founded five years ago. Hampered at the outset by all those incapables who seek success only through notoriety or, as we call it, through *le pétard*, and restricted to a rather small number of exhibitors, its beginnings promised but a doubtful outcome. It was to be feared that, "bucking against" a society so classic and well-established as that of the Artistes Français, it must be defeated in spite of all efforts. Its audacities might turn out ill, or at any rate be surpassed by those of the so-called independents, impressionists, symbolists or *décadents*, who under these empty and pretentious titles conceal their ignorance and folly. To appreciate their work one must see what these lunatics and buffoons have succeeded in accomplishing and exhibiting in certain show-windows. There is still an unquiet feeling about the works of these hair-brained enthusiasts. It is asked whether shall we go if this malady increases and what will become of the

French school if the crowd, through fashion, indifference or unhealthy curiosity, follow after these crazy ones, these Barnums, if only to laugh at them?

In 1890, at the time of the first exhibition at the Champ de Mars people laughed more or less. The members of the Society, for the sake of making a presentable show in point of quantity, had to endure the propinquity of wholly unworthy neighbors. Talent had to be sought for amid a ruck of mediocre work, and always, for the sake of covering the walls, the members have been allowed to send an indefinite number of their works, sometimes a dozen or fifteen being hung. Architectural work was conspicuous by its absence, sculpture was poorly represented and the new department of *Objets d'Art* was still more modestly supported. But the founders of the new *salon* had abundant energy and perseverance. There was, in especial, the will to break with classic routine, the feeling of the need of being more modern, more elegant and more youthful, and by these urgings the younger element felt itself attracted and encouraged. It is now evident that every new experiment will be better received at the Champ de Mars than at the Champs Elysées where art will remain, doubtless, more reasonable and where, if habits do not change a little, the researches and experiments of new men and the interest that results from the inevitable imperfection of beginnings will be lacking.

During these five years the number of Members of the Society has increased, as well as the number of Associates, and this year the Members were allowed to exhibit only eight paintings, but even this is too many, although all have not exhibited the permitted number. At all events, the exhibition of the Société Nationale des Beaux-Arts is this year a very brilliant one and has been organized with perfect taste. In place of the interminable galleries, the committee arranged a series of little *salons*, furnished and decorated in a most delightful manner with paintings and *objets d'art*. Except for the turnstile at the entrance the visitor might well fancy himself about to pay his respects to some young and fair Parisian dame in the midst of her household gods. The sensation is charming; but evidently this is not enough and the visitor ought to derive pleasure from the paintings and curios collected by this would-be artist. What she exhibits should move the beholder and cause him to think. Now, I do not know what the Champs Elysées have in store for us, but to surpass what we see here will be difficult indeed. We still find here the product of a nervous and unhealthy condition of the artist, rather than true works of art. But, independent of other remarkable works, there is one here which commands the respect and admiration of every one by its importance and the faith that has inspired its creator. In truth, after a period of naturalism carried to the farthest limits, and of vulgarity, art in France has for some time past been undergoing a very curious reaction, turning toward the ideal and even the mystic. This reaction causes the artist to seek out all those grand and glorious figures in whom the human element is measurably effaced in the legendary and supernatural. Napoleon I, upon whom literature and the theatre has seized, is now the artist's theme; so, too, is Joan of Arc, in whose honor a grand ceremony has just been performed at Notre-Dame de Paris. The moment was well chosen, therefore, to interest the public and artists in a colossal work which presents the grandest personality of all humanity, Christ himself. For the last eight years M. James Tissot, a modest and persevering artist, has consecrated himself to the gathering at Jerusalem, Nazareth, Gethsemane and wherever else Jesus tarried, according to the accounts of the Evangelists, all the data and documents necessary for the representation of types, buildings and all the accessory details of the epoch, all with the intention of placing before us a study of the life of Jesus. To resuscitate, as in a vision, the impassioned but human drama which still moves the whole world was a colossal undertaking. Setting aside beliefs, religions and ideas, and only considering what I purposely style the drama, this work of M. Tissot's astonishes, moves and gives rise to thought. Two halls especially decorated in a primitive architectural style have been devoted to it. The entire work will consist of three hundred and fifty compositions, of which only two hundred and seventy are exhibited this year. Quite small in dimensions, these compositions follow, word for word, the stories of the four Evangelists and are divided into five series: Infancy, the Call, the Holy Week, the Passion, and the Resurrection. Without being expansive over the rare merits of this extraordinary work, I will be content with insisting on the captivating qualities of this poem which moves and yet holds one spell-bound. It is almost impossible to avoid examining all these little paintings, from first to last, so closely are they connected one with another, like words in a single phrase. Poetry, sentiment, suffering and faith find in M. Tissot's work the interpretation and accent of the very essence of art, which at times have the merits of an inspired vision.

Another artist, one always interesting to us architects, M. Puvion de Chavannes, exhibits in its entirety the decoration intended for the staircase of the Préfet at the Hôtel de Ville. The drawing for the ceiling was shown last year: it represents Victor Hugo offering his lyre to the City of Paris, as I last year described in detail. I have already pointed out how dangerous seemed to be this practice of exhibiting decorative designs apart from their intended surroundings. This time, in order to obviate this difficulty, which does such injustice to the critic and the painter, the designs have been surrounded with the architectural lines, painted and decorated, which will actually enframe them. The four vault soffits

¹ Mr. Brewer's drawing embodying this suggestion is reproduced as one of our illustrations.

and the six tympana are indicated and show how the discreetly attenuated coloring of the artist will harmonize with the architecture. Even the drawing, simplified and reduced almost wholly to lines, has a decorative feeling. With M. Puvis de Chavannes it is always necessary to consider the *ensemble* only, and not halt at certain details which exhibit an awkwardness wholly unaccountable in an artist who signed the magnificent drawings which for a year passed have been hung at the Luxembourg. For the vaults, the allegorical figures symbolize: Patriotism, Charity, Artistic Ardor and Intellectual Force. Those for the tympana represent: the Mind, Fancy, Beauty, Intrepidity, Memory and Urbanity. The *ensemble* is in perfect harmony in all that concerns tone, but as this great ceiling decoration is hung on a vertical wall it is impossible to determine the final effect, but I may be allowed to express the fear that these personages will be found lacking in balance, having been placed, seemingly, without due allowance for the perspective effect peculiar to this kind of decoration.

Having thus placed apart by themselves the two most important exhibits, it is now necessary to pass through the galleries, stopping only before those canvases of real value, or those which have excited public remark. For one who tries to present a general idea of the exhibition at the Champ de Mars, and that is all I am doing, the exhibits may be divided into two great camps, as it were: the dark and the light, and it is interesting to note that the critics who used so to applaud the *plein air* and rather "loud" painting of Manet to-day admire and applaud paintings that are sombre, black and charcoally. This is evidently disconcerting to the dear public, accustomed to seek its opinions ready-made in the morning papers, and to await the verdict of the fashionable critic of the day before expressing its own views. Thus, this year much praise is showered on the portrait of the Comte de Montesquiou-Fézensac, by Whistler. It is quite plain that this life-size portrait is no commonplace one; in its lines, in its attitude, it evinces the aristocratic character which unquestionably belonged to its original. This tall personage, in a black coat, has a rather impertinent and disdainful air; but he is none the less lugubrious, lugubrious and funereal. It is not allowable to paint a black coat so absolutely black as this, against a black background, too. When one looks at this portrait, one feels as though one ought to put on mourning one's self. And Mr. Whistler prefixes to the name of his sitter in the catalogue the words "*noir et or*," words which to us are absolutely enigmatical. All his canvases "Brun et Or" (portrait of a woman), "Vert et Violet" (portrait of another woman), "Violet et Argent" (marine effect), pretend to be harmonies of color most difficult to detect and make us suspicious that the artist has more "gall" than skill.

Simplicity does not shine at the Champ de Mars. In especial, it is wanting in the works of M. Frédéric and of M. Adolphe Binet. The former exhibits a horrible nightmare, styled "Everything is dead": it is a seeking after horrors and atrocities pushed to the farthest limits. Religion, Love, Justice, everything is dead, and to prove it, M. Frédéric has covered his canvas with a bloody smear whence emerge here and there, broken limbs, tortured and maimed bodies; it is a heap of murdered bodies soldered together, so to speak, by a stream of blood, and surrounded by flames. At the top of the picture, God, overwhelmed by his own work, or rather, I should say, by the work of M. Frédéric, veils his face and groans.

The "Temptation of St. Anthony," by M. Adolphe Binet, is no more joyous, and it must be admitted that the saint was quite right in turning his eyes away from this spectacle, which the reading of Flaubert has evoked before the artist. Here is a man with his skull cleft in twain, holding the upper half in his clenched hands and drinking out of it. A Caesar, clad in a cuirass, stretches out his red and bloody hands, while around these two personages naked men and women whirl in a frightful pell-mell. Unfortunately, the artist exhibits much skill in his handling, but what a frightful subject!

Now let us rest our eyes upon the freshness of M. Meunier's "Colporteur," who, as he rests by the roadside, excites the admiration of the peasant girl about to spread her wash on the bleaching-field. It is pleasing and finely studied; indeed, we always find in M. Meunier's work a conscientiousness which is hardly now in fashion, but which one would like to find more of in the work of those who profess to despise this quality.

Evangelical subjects are not wanting and we have plenty of "Good Samaritans" and "Christs": that of M. Dagnan-Bouveret, representing an apparition appearing out of the depths of a sombre background, is very fine. The expression of the face well depicts the state of the Master's soul, full of the bitterness of death. M. Béraud's "Road to the Cross," on the other hand, is far from enjoying the same qualities. Of late years, this artist seems to have set himself the task of modernizing the divine countenance. After having shown us Jesus in a private room of a restaurant on the Boulevard, he this year shows Him to us climbing Calvary, surrounded by a shouting band of workmen, veritable types of the frequenters of the *barrière* and public *réunions*. All this is gross and in wretched taste, but none the less the crowd gathers about this picture far more than around the admirable work of M. Tissot. M. Carolus Duran also exhibits a "Christ at His last hour": against a black cloud, which is advancing out of the sky, the crucifix is detached mid a luminous glow which also bathes the female figures prostrate at its foot. The remainder of the picture is sombre and stormy and allows all interest to centre on the principal personage; it is a poetical sketch, full of feeling and borders on inspiration. Naturally, M. Carolus Duran

exhibits several canvases, portraits all, brilliantly treated and one of which, "The Poet and the Mandoline," will always be one of his best; it is clear, living and energetic painting.

Does the palette of M. Daumas furnish clear colors? Unquestionably it does, but in my opinion, his tones are dull rather than luminous: this smacks of artificiality and is brutal. M. Montenard is luminous in the truest sense of the word. But he is a landscapist, it will be said; but what difference does that make? Light is light, and the southern sun has no better interpreter than he. Amongst the "lights," too, must be ranked M. Besnard who seeks odd and complicated effects. This year he shows us a sickly woman, to judge by her complexion, and an eccentric one, to judge by her gown of a yellow that is startlingly yellow. True, we see close at hand, strangely-colored horses, carmine in fact, caracoling over a violet ground beside a very, very green sea. Is this art? Some say it is, others doubt it, and with these I ally myself.

There is but little *genre* painting at the Champ de Mars. M. Jeannot is a man who paints an anecdote with spirit. His "Conscripts" filing before the Council of Revision, with their meagre and poorly set-up bodies, are amusing and the scene is cleverly painted. M. Roll's life-size peasants are also very truthful. His "Workers of the Soil" is rendered with much feeling and one seems to feel the heart-beats of those humble spectators of the mother suckling her infant as she gazes upon it lovingly.

Amongst the artists who are content to study Nature, and render her simply without taking refuge in obscure and complicated symbolization, there must be mentioned amongst the portrait painters MM. Mathey, Edouard Sain and Gervex; and amongst the landscapists, Damoye, a master, I will, whose Venetian views are treated in a rather ideal and decorative manner, but charming withal, and Pokitonow who shows some little landscapes that are adorable.

After the "lights" come the "darks," and it is curious to see the same nature, the same humanity interpreted in so different manners, so far as color goes. M. Aman Jean, a young painter much upheld by a certain school, sees every one under a bistre or yellow color; his portraits are uniform and flat. When one considers how time has used vigorous paintings of relatively recent date, one wonders what will happen to those of M. Aman Jean and to those of M. Alexander, too, whose ash-colored portraits are rendered in the "dark" manner, relieved very imperfectly by a few gleams of dull and artificial light: and yet there is life and expression in these faces.

One of the old believers in light, M. Duez, has been caught by this sombre fashion and has toned down his palette in a regrettable manner. His "Bathing Hour," showing two Parisiennes who have come to gaze on the bathers on the beach, does not altogether escape this criticism, though compensation is in great part made by the former good qualities of the artist.

I think I have now given a general idea of the exhibition so far as painting goes. Sculpture does not fill a very important rôle and it may properly be considered in connection with that shown at the Champs Elysées.

MAURICE BRINCOURT.



AMERICAN INSTITUTE OF ARCHITECTS.

THE subjoined circular letter has been addressed to each architect in the country in the hope that each will take the action suggested:—

OFFICE OF THE SECRETARY, PROVIDENCE, R. I., May 21, 1894.

DEAR SIR:—

During the last twenty-five years the American Institute of Architects and members of the profession who do not belong to that body, together with many others who are deeply interested, have been trying to bring about a reform in the methods of designing and constructing buildings for the United States Government.

The officials at Washington have met our committees courteously, have assured them of their entire sympathy, and have promised to support this cause. But we stand, practically, where we did a quarter of a century ago, although earnest and persistent efforts have not been wanting.

We are now forced to see, that the path, so patiently pursued, runs in a circle and does not lead to any goal and that there has never been manifested in Washington the sincere support necessary to carry on this reform. We have failed to win our cause through personal, private means and must now go to the Country with the facts.

THE ABUSES TO BE REFORMED.

1. The needless cost of the public buildings.
2. The needless cost of architectural service.

The authority for the figures quoted below is Mr. Glenn Brown's article in the *American Architect* of April 7, 1894, entitled "Government Buildings compared with Private Buildings."

COST OF BUILDINGS.

Mr. Brown's statistics show the actual cost of a large number of Government and private buildings, which he compares with each other, class by class.

These statistics prove that the United States Government buildings cost 67 per cent more per cubic foot than private ones of similar construction, finish and size.

COST OF ARCHITECTURAL SERVICE.

Private "architectural service" covers the following:

Preliminary sketches, which include competitive drawings.

The final designs of every sort.

The working-drawings, details and specifications.

All necessary reproductions of drawings.

All services of mechanical, sanitary, heating, electrical and constructional engineers, together with the draughtsmanship, details and reports, necessary to carry out their ideas.

All paper, stationery, book-keeping, estimating and rendering of accounts, making of certificates, etc.

All preliminary and final adjustments.

For the above services the regular fee is 5 per cent on the total cost of the building. To this should be added the sum of 1 per cent, estimated on the cost of the building for travelling-expenses, in case there are any, and for clerk-of-the-works, both of which are usually paid for by the owners themselves.

The cost, therefore, of complete private architectural service, including the clerk-of-the-works and travelling-expenses, amounts to 6 per cent.

Mr. Glenn Brown's statistics, taken from the actual cost of a large number of separate structures, shows that the Government expends for the same architectural service, as listed above, over nine per cent (9 per cent).¹

COMPARISONS.

Cost of architectural service, public buildings.....	9 per cent.
Cost of architectural service, private buildings.....	6 per cent.
Excess of cost of Government over private architectural service.....	50 per cent.

But this last comparison is made as if the Government and private buildings cost the same per cubic foot, which, however, is not the case, as the Government buildings cost, on an average, 67 per cent more than private buildings. The true comparison, therefore, on a basis of the same cost per cubic foot for private and public buildings is:

Architectural service, public buildings.....	15 per cent.
Architectural service, private buildings.....	6 per cent.
Excess of cost of Government over private architectural service.....	150 per cent.

NOTE.

It is stated by Acting Secretary of the Treasury Curtis, in House of Representatives, 53d Congress, 2d Session, Ex. Doc. No. 179, which was recently sent to the speaker of the House of Representatives, that:

"It appears from the schedule of fees customarily charged by architects that the expense of preparing plans, drawings, and specifications and administration under the Act might be greater than at present, but how much cannot be satisfactorily determined until a definite and detailed scheme is prepared for its development."²

Does the Acting Secretary mean that the extravagant system now in vogue in the office of the Supervising Architect of the Treasury Department must be retained, and that to the total percentage must be added that paid to outside architects, should they be employed to make designs? If so, one of the main purposes of any new legislation, so far as the architects are concerned, should be to cut off this frightful extravagance in the office of the Supervising Architect, in order that the Government may have the work done at the same price that individuals pay, and by means of a service more able, expert and satisfactory.

It is this very matter of enormous expense that we are striking at.

The Government can have its work done as cheaply as any one else, provided a mandatory law be passed, insuring the employment of the expert architects of the country.

THE ARCHITECTURAL RESULTS.

This point needs no argument:—That after spending 50 per cent more for a given building, and 150 per cent more for full professional services than there is need of doing, and after taking from twice to ten times as long to finish the structure, the result is inferior. The Government buildings obtrude themselves upon us; are inferior not only to the best contemporary private structures, but to the average ones; few, if any, are well planned, and all are more or less offensive in appearance.

We wish to stop this great waste of the people's money, and to prevent the erection of any more structures which shall debase public taste.

Will you undertake your part in this work? A few men only in the profession have, so far, sacrificed their time and given their best

efforts for the cause. It is a public duty. It must be carried forward unselfishly and without personal ends.

You wish to know what is to be done?

1. Study this case until you are familiar with it. Procure a copy of the *American Architect* of April 7, 1894, and of House Ex. Doc. 179, and carefully inform yourself.

2. Use every effort within your power to have a mandatory law passed, which shall provide that all Government buildings costing over \$25,000 must be thrown open to public competition.

That a jury to arrange the programme and pass upon the plans be selected, consisting of the Supervising Architect of the Treasury Department, a business man to be appointed by the Secretary of the Treasury, and three others to be appointed by some means which will insure efficient and reputable men who are uninfluenced by party politics.

That when a design is premiated, its author shall be made architect in full charge of the work.

Will you personally see, or write, to your congressmen and senators, at once, and cause to be written not less than ten (and fifty, if you can) letters from influential men, all addressed to those public officials and strongly favoring this cause? Please see the letters written and signed, wherever it is possible to do so without giving offence. Send one copy of each to Mr. Secretary Stone of the Institute, Providence, R. I.; and the other copy to the person to whom it is addressed.

Please call upon each and every newspaper and periodical within your reach and bring all the influence to bear you can, to induce them to strongly favor the passage of such an Act as we desire, and send marked copy of every newspaper and periodical in your territory, mentioning this case favorably, to the Secretary, and one to each of your congressmen and senators. It is especially important that each newspaper shall follow up the work and not allow an issue to be printed without some favorable mention of this matter in its columns.

Will you also request each of those who write letters for you, to sign a petition to Congress, and will you please forward this petition to the Secretary, who will make proper use of it?

Faithful, persistent, urgent effort on the part of all will be necessary in this reformation. Don't say to yourself that another will do better, or more, or that he will attend to any duty within your possible reach. Do it yourself, giving to the Institute and its officers, who are making so great an effort, all the time you possibly can during the next 100 days. Do not intermit your efforts before Congress adjourns.

It will assist the officers of the Institute, if you will promptly acknowledge to the Secretary the receipt of this letter, giving them the benefit of your suggestions regarding further action.

Yours faithfully, ALFRED STONE, Secretary A. I. A.

THE letter from the Acting Secretary of the Treasury. . . in response to House resolution adopted March 16, 1894, relative to plans and specifications for public buildings here follows:

TREASURY DEPARTMENT, OFFICE OF THE SECRETARY:—

WASHINGTON, D. C., March 31, 1894.

DEAR SIR:—

In response to a resolution adopted by the House of Representatives, March 16, 1894, requesting the Secretary of the Treasury to inform the House of Representatives what measures, if any, had been taken by him under the Act entitled "An Act authorizing the Secretary of the Treasury to obtain plans and specifications for public buildings, etc.," approved February 20, 1893, and to inform the House what, if any, further legislation is in his opinion necessary to carry out the provisions of the said law, I have the honor to make the following statement:

Early in March, 1893, the subject-matter of the Act in question was brought to the attention of the Secretary of the Treasury by several members of the American Institute of Architects, and at their suggestion a conference was held on the 22d of March, 1893, at which the provisions of the Act were discussed, and some of the difficulties in the way of putting it into practical operation mentioned. Subsequent thereto, certain correspondence took place between the officers of the American Institute of Architects and the Secretary of the Treasury, and also between them and the Supervising Architect, individually.

Early in January, 1894, a committee of the American Institute of Architects submitted a written protest against the sketch-plans of the United States public building at Buffalo, N. Y., which had then been prepared by the Supervising Architect and approved by the Secretary of the Treasury, and two conferences in regard thereto, one on January 10 and the other on February 6 of this year, were held by the committee with the Assistant Secretary of the Treasury, having general direction and supervision of all matters relating to the public business assigned to the Supervising Architect, the Secretary being unable to meet them owing to other engagements. These conferences, and the tenor of the correspondence arising therefrom, emphasized the inadequacy of the provisions of the Act to accomplish the desired object, and it was then decided that the designs for the Buffalo building, which had been temporarily held in abeyance, be proceeded with, but that this should not prevent further negotiations in the endeavor to effect the intention of Congress in making the enactment. . . .

The following suggestions were made to the architects' committee:

That there was a conflict between the provisions of the present Act and the provisions of certain other statutes regarding public buildings; that it was necessary to prepare a comprehensive scheme under which

¹ "Civis" (Adolf Cluse, who from service in the office of the Supervising Architect knows whereof he affirms) in a paper on this subject printed in 1892, says that the architectural service rendered cost the Government more than eleven and eight-tenths per cent.

² See the following document in full.

a competition could be arranged and a method provided for selecting a jury of award to pass upon the designs received in such competition; that the relations of the successful competitor with the Secretary of the Treasury and with the Supervising Architect's Office should be clearly established and defined by contract; that the required change in the method of preparing the plans, drawings, and specifications would necessitate a reorganization of the office of the Supervising Architect, a reduction in its force, the rearrangement of the different divisions, and the work to be performed therein; that they should examine the workings and details of the office, in order to make intelligent criticisms and suggestions thereon.

The Act of March 3, 1875 (Sundry Civil Act, section providing for payments, contracts, etc., for public buildings), was neither repealed nor amended, and this requires that—

No money shall be expended upon any public building on which work has not yet been actually begun until after drawings and specifications, together with detailed estimates of the cost thereof, shall have been made by the Supervising Architect of the Treasury Department, and said plans and estimates shall have been approved by the Secretary of the Treasury, the Secretary of the Interior and the Postmaster-General. . . .

This provision conflicts with the evident purpose of Congress expressed in the present Act.

The Supervising Architect of the Treasury is the proper Government official to prepare a scheme for the competition contemplated in the Act in all its various details. He has the necessary experience, and acquaintance with his professional associates, and can give the time and attention required therefor. A proviso that such scheme should be approved by the Secretary of the Treasury would seem to insure the satisfaction of the public.

In the selection of a satisfactory design for a public building, both practical and architectural questions are presented and any jury of award to pass upon the plans should consist, not only of architects, but also of business men or Government officials who are familiar with the practical uses and necessities of the public building under consideration at the time. A commission or jury of award consisting of five members, three of whom should be architects of recognized professional standing and experience, and two business men or Government officials to be appointed by the Secretary of the Treasury, and paid for their services while actually engaged in their work, is suggested.

Under the present Act the successful competing architect will have the preparation of the plans, drawings, and specifications, while the preparation of the proposals, the award of contracts, and the payment of all moneys are delegated to the Supervising Architect, and the latter is to perform all duties that now pertain to his office, except the preparation of drawings and specifications for the buildings and the local supervision of construction. This language fails to clearly define the duties of either. It would, therefore, seem necessary that the architect should have entire control of all the details pertaining to the construction of the building in the manner in which architects customarily control them, and the duties of the Supervising Architect be limited to a general supervision, to protect the interests of the Government during the course of construction, or that the competition should be limited to designs to be carried out by the Supervising Architect. In any event, the Secretary of the Treasury should be authorized to use his discretion as to this, and directed to contract with the architect, and obtain an agreement defining strictly his duties and rights in the premises, the amount of his fees, the method to be followed during the course of construction, and to make any other provisions deemed advisable.

The office of the Supervising Architect is engaged with other work besides the construction of public buildings. It arranges for and supervises the repairs and preservation of the public buildings in the country, finished and occupied, numbering two hundred and seventy-three, the assignment of rooms therein to various officials as the needs of the public service require, the keeping a large number of records regarding the Government buildings, the proceedings regarding the obtaining of sites, the condition of the various appropriations and expenditures thereunder, and many other details. It would be necessary to retain a considerable portion of the present force of the Supervising Architect to carry out this work effectually.

It appears from the schedule of fees customarily charged by architects that the expense of preparing plans, drawings and specifications and administration under the Act might be greater than at present, but how much cannot be satisfactorily determined until a definite and detailed scheme is prepared for its development.

I am of the opinion, then, that in order to carry out the intention of Congress in enacting this law, it will be necessary to amend the Act by substituting the following:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury be, and he is hereby, authorized, in his discretion, to obtain competitive designs or complete plans, detailed drawings, and specifications for the erection of the public buildings of the United States, authorized by Congress to be erected under his supervision and direction. The Supervising Architect of the Treasury Department shall prepare a scheme for free or open competition among the architects of the United States therefor, such scheme to be approved by the Secretary of the Treasury: That the Secretary of the Treasury shall nominate and appoint a Commission or Commissions, each consisting of five citizens of the United States, three of whom shall be architects of recognized professional standing and experience, and two of whom shall be men of business or Government Officials who are familiar with the uses and necessities of the public building under consideration at the time, to select the best design or complete plans from those submitted in accordance with the scheme of competition hereinbefore provided. The members of the said Commissions shall be paid their actual travelling expenses and subsistence while actually engaged in the performance of their official duties.

The expenses of the Commission and the fees for the services of the architect successful in said competition shall be paid from the appropriation for the building respectively passed upon or designed. In case the complete plans, detailed drawings, and specifications are furnished by competition,

as herein provided, the Supervising Architect of the Treasury Department shall be the representative of the Government to inspect the erection and completion of the building, the receipt of proposals, award of contracts therefor and the disbursement of moneys thereunder. In case designs only are supplied by competition, the Supervising Architect shall perform the duties now required of him by law, in the usual manner, excepting the preparations of such designs. That in the discretion of the Secretary of the Treasury, the architect selected as herein provided to furnish complete plans, drawings, and specifications, shall have the entire direction and control of the construction of said building, and the direction and control of the local superintendent of construction, and the Secretary of the Treasury is hereby authorized in all cases to make a contract with said architect for his services, providing for such erection and control, fixing his duties and responsibilities during the construction of the said building, and making proper provision for modification or change in the plans and specifications during the progress of the work, and for additions thereto; also determining the amount of his fees and charges, and including such other provisions in the contract as may, in his discretion, appear advisable to protect the interests of the Government. Any or all of the designs, or plans, detailed drawings and specifications presented in the competition herein provided may be rejected by the Commission, and in case the competition fails for any cause, or it is impracticable to obtain designs or plans, detailed drawings, and specifications by competition, the Secretary of the Treasury shall direct the Supervising Architect to prepare plans, drawings and specifications and supervise the construction of the building in the usual manner according to law.

All Acts, or parts of Acts, inconsistent or in conflict with this Act are hereby repealed.

Respectfully yours, W. E. CURTIS, Acting Secretary.
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SKETCH CLUB OF NEW YORK.

THE last regular monthly meeting of the Club before the summer vacation was held at the club-rooms Saturday evening. Forty-four members and four guests were present. Mr. Russel Sturgis and Mr. Walter Cook were guests of the Club. President E. A. Josselyn occupied the chair. Mr. Sturgis delivered a lecture on Greek Architecture and its adaptability to modern work. Mr. Cook criticised the drawings submitted last month for a country railroad station; everybody was well pleased with the result.

The Club then plunged into a heated discussion on the advisability of admitting ladies to full membership. The whole matter was finally referred to the Executive Committee.

The meeting adjourned at 11 P. M., when the members were treated to a performance of legerdemain by Professor L. Krieger, and music by Club talent.

H. C. PITTMAN, Secretary.

PETROLEUM-BRICK FUEL.

THE following is Maestraci's method of manufacturing petroleum bricks for fuel:

Mix one litre of petroleum, 150 grams triturated soap, 10 per cent of resin, and 333 grammes of caustic soda. Heat this mixture, being careful to stir it well meantime, until solidification commences—say about forty minutes. If the mixture should tend to boil over, pour in a few more drops of the soda, and continue to stir until solidification has sufficiently progressed; then pour the semi-fluid material into moulds to form the bricks, and place these in a hot room or drying place for ten or fifteen minutes; then remove them and let them cool. In a few hours they can be used as fuel.

To the three elements which constitute the mixture Mr. Maestraci recommends the addition of 20 per cent of sawdust and 20 per cent of clay or sand, which makes the bricks more solid and less expensive. Trials of these bricks as fuel have been made at Marseilles on several tugs, and it has been found that, weight for weight, they develop three times as much heat as the ordinary coal brick, and leave no ashes.

It is expected, with some slight changes in the furnaces, to arrive at still more perfect results, not only in the increased heat, but in the entire suppression of smoke, and on the most economical basis, one kilogramme of the solidified material being equal to four kilogrammes of coal. These experiments seem to be very interesting, and it is quite easy to understand that there is a double advantage in using such fuel on steamers, as they economize in both space and cost.

C. W. CHANCELLOR, U. S. Consul at Havre.

AUSTRALIAN WOODS FOR STREET-PAVING.

MELBOURNE, January 12, 1894.

AT the present time, when this country is recovering from the recent financial cyclone, and when the business outlook is daily growing more promising, it is not inappropriate to consider by what means the commerce between the United States and the Australian colonies can be increased to mutual advantage.

It has occurred to me that a large and profitable business can be done between the two countries by the shipping to the United States of wood blocks for street paving. The advantages to be derived are manifold.

Wood pavements are admittedly the best in the world, and of late years they have only been abandoned in the United States owing to the fact that no wood of native growth could be found that would stand the wear and tear of the heavy traffic in our large cities.

In this country one is compelled to notice and give the palm to the street pavements made from blocks of red and blue gum, a wood grown in this country, which has proved to be equal to all requirements.

I have noticed in this city and in Sydney, where strips of the wooden pavements have been joined to a stone pavement, and where both have been subjected to the heaviest wear, that the wooden pavement has worn even better than the stone, and, where the two pavements join, the edges of the wood blocks are not even chipped or worn.

It is a pity that our country, which is so far ahead of other lands in many respects, should be so far behind in this matter of street-paving.

Can we not adopt the Australian wood blocks to advantage? If a fair trial could be given by some of our cities, I am sure that it would result in the adoption of Australian timber for street-paving in the United States and thus open up a new industry between the two countries.

Perhaps the very best timber obtainable for this purpose is the Tasmanian blue gum. This has worn here for six or eight years. In all that time no repairs have had to be made, and the pavements are as good to-day as when laid.

The Tasmanian Government is interested in the matter, and have taken active steps to place samples before our contractors and municipal authorities.

An American exporting and importing firm doing business here, with a branch in New York City, recently visited Hobart, the capital of Tasmania, and laid the matter before the Premier. They were most courteously received, and at their suggestion the Premier caused to be shipped to them, in New York, samples of these blocks, which can now be seen at the office of Messrs. Trowbridge & Terry, 531 Broadway.

While these hard woods are plentiful here, it must be remembered that the cost of freight, etc., would bring them to New York at a price probably no lower than cedar blocks can be obtained at home; but consideration must be given to their durability and vast superiority.

It is not unlikely that in view of opening up this trade with the colonies, and at the same time benefiting our own land, arrangements might be made to admit these blocks free of duty.

The demand at home will be endless and the supply here inexhaustible, and the benefits resulting from the adoption of these blocks apparent. For instance, all sailing vessels coming to this port from the United States are, in nearly all cases, obliged to go to other ports seeking return cargoes. Should the wood blocks be accepted and used in the United States, these vessels could all get return freights here, and thus the trade between the two countries would be profitably increased.

DANIEL W. MARATTA, U. S. Consul-General.



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

OFFICE BUILDING AT JUNCTION OF CALIFORNIA, DRUMM AND MARKET STREETS, SAN FRANCISCO, CAL. MESSRS. COXHEAD & COXHEAD, ARCHITECTS, SAN FRANCISCO, CAL.

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

This building has lately been completed for the Luney Estate. The cost of the building is about \$100,000.

FIRST BAPTIST CHURCH, BRIDGEPORT, CONN.; MR. J. W. NORTHROP, ARCHITECT, BRIDGEPORT, CONN.

The church is built on a peculiar site, there being quite a steep incline in the side street, about 15 ft. from front to rear. This allows of an extra story well above ground in the rear part of the building, which has been utilized to good advantage. The building is of light red sandstone—very hard and durable. The interior is trimmed in oak. Cost, including furniture, organ, etc., \$75,000.

DESIGN FOR AN ORGAN BY MR. H. W. BREWER.

SEE article elsewhere in this issue.

ORGAN IN THE CHURCH OF ST. JOHN THE BAPTIST, GOUDA, HOLLAND.

CHOIR ORGAN, ST. PAUL'S CATHEDRAL, LONDON, ENG.

MAIN BUILDING, PYTHIAN UNIVERSITY, FOR THE ORDER UNIVERSAL, GALLATIN, TENN. MR. J. G. ZWICKER, ARCHITECT, NASHVILLE, TENN.

[Additional Illustrations in the International Edition.]

PORCH OF ANNEX OF THE ART BUILDING, WORLD'S COLUMBIAN EXHIBITION, CHICAGO, ILL. MR. CHARLES B. ATWOOD, ARCHITECT.

[Gelatin Print.]

SOUTHWESTERN CONNECTING PAVILION BETWEEN MAIN ART BUILDING AND WESTERN ANNEX, WORLD'S COLUMBIAN EXHIBITION, CHICAGO, ILL. MR. CHARLES B. ATWOOD, ARCHITECT.

[Gelatin Print.]

THE ROYAL COLLEGE OF MUSIC, SOUTH KENSINGTON, LONDON, ENG. SIR A. W. BLOMFIELD, ARCHITECT.

The new building of the Royal College of Music, was opened by H. R. H. the Prince of Wales, the president, in the name of her Majesty, the Queen, on Wednesday, May 2. It stands almost midway between the Albert Hall on the north and the Imperial Institute on the south, on a broad road running from Prince's Gate to Queen's Gate, and called the Prince Consort Road. The college is built of red brick, with bands and dressings of Weldon stone, and the roofs are covered with green slate. The style is Renaissance, freely treated. The cost of the building has been defrayed by a sum of 45,000*l.* munificently presented to the Prince of Wales for the purpose by Mr. Samson Fox, M. Inst. C. E., of Leeds, in 1891. The decorations of the entrance hall have been carried out at Mr. Fox's cost by a further donation of 1,000*l.*

The college has been erected on a plot of ground granted to the college at a nominal rent by the Royal Commissioners of 1851. It is divided into two wings, one for the male and the other for the female pupils. These have separate entrances, stair-cases and lifts, but are connected on each floor except the top by a corridor running from end to end of the building. The main entrance for the public is in the centre, leading into an entrance hall. Immediately in front of a visitor, on entering, is the general office for inquiries, etc.; on the right are the offices and private rooms of the director and registrar, and on the left, council and committee rooms, waiting-rooms, library, etc. In the sub-basement are the kitchen, the dining-rooms for professors, pupils and servants, and offices; on the basement, first, second, and third floors are the requisite number of class-rooms of varying sizes, and in the upper part of the towers, which form a conspicuous feature at each end of the building, are placed the organ-rooms. The building occupies the portion of the ground immediately abutting on the Prince Consort Road, and space is left in the rear for the erection of a theatre and concert-room, as well as for other additions as the number of pupils increases. Owing to the fact that the ground falls rapidly away from the front, the building has a basement and sub-basement below the ground floor, both entirely above ground on the south front and at the sides. The theatre already mentioned will, it is hoped, be erected at no distant date. It will be planned to serve also for a lecture-room and for orchestral concerts, and will be placed immediately at the back of the central offices on the spot now occupied by the temporary hall, with ample means of easy and direct access and exit by the front entrances. Underneath the theatre, which will be entered on the level of the ground floor, will be large rehearsal-rooms, dressing-rooms, etc. Immediately below the roof is a noble room running nearly the whole length of the building, which it is hoped to occupy shortly with a collection of musical objects. In a room immediately behind the temporary hall is the very valuable and unique Donaldson Museum of historical musical instruments. The statues of the Prince and Princess of Wales in the entrance hall, and the bust of Mr. Fox, were executed by the late Prince Victor of Hohenlohe. The bust of Mr. Fox was executed for the council of the college. In the council-room is a marble bust of the late Duke of Clarence, executed by Mr. J. S. Webber.

THE MARKET PLACE, SAFFRON WALDEN, ENG. MR. E. BURGESS, ARCHITECT.



[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.]

"THE BEST TWENTY BOOKS."

MINNEAPOLIS, MINN., May 25, 1894.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Will you kindly publish the names of the "best twenty books for an architect's library" which appeared in your paper early in the year 1886, and oblige,

Yours very truly,

WILLIAM M. KENYON.

[The voting produced the following result: 1. Fergusson's "History of Architecture in all Countries"; 2. Gwilt's "Encyclopedia of Architecture"; 3. The American Architect; 4. Viollet-le-Duc's "Dictionnaire Raisonné de l'Architecture Française"; 5. Smith's "Notes on Building Construction"; 6. Trantwine's "Civil Engineer's Pocket-book"; 7. Clark's "Building Superintendence"; 8. Viollet-le-Duc's "Discourses on Architecture"; 9. Jones's "Grammar of Ornament"; 10. Rosengarten's "Hand-book of Architectural Styles"; 11. Kidder's "Architect's and Builder's Pocket-book"; 12. Webster's "Unabridged Dictionary"; 13. Ruskin's "Stones of Venice"; 14. Gillmore's "Treatise on Limes, Hydraulic Cements and Mortars"; 15. Ware's "Modern Perspective";

16. Baldwin's "Steam-heating for Buildings"; 17. *The Builder*; 18. Haswell's "Engineer's and Mechanic's Pocket-book"; 19. Billing's "Ventilation and Heating"; 20. Ruskin's "Seven Lamps of Architecture"; 21. Parker's "Concise Glossary of Architecture."—EDS. AMERICAN ARCHITECT.]

EXHIBITIONS

BOSTON, MASS.—Several hundred Specimens of Textile Designs of all countries, from the second century to the present time, from the collection given by Denman W. Ross; also the Shizuru collection of Japanese Art: at the Museum of Fine Arts.

CINCINNATI, O.—Exhibition of the Cincinnati Art Club: at the Art Museum, May 17 to June 30.

NEW YORK, N. Y.—Twenty-sixth Annual Spring Exhibition: at the Metropolitan Museum of Art, opened May 8.

Group Exhibition by American Painters—William M. Chase, J. Alden Weir, Childe Hassam and others: at the Galleries of the American Fine Arts Society, 215 West 57th Street.

NOTES AND CLIPPINGS

JUDGMENT AGAINST PRINCE SCIARRA FOR EXPORTING WORKS OF ART.—The suit against Prince Sciarra, accused of breaking an old law by selling certain works of art and allowing them to go out of Italy, which has been pending for the last two years in the Roman courts, has been decided, subject to an appeal in the Court of Last Instance, against him; and he has been ordered to restore the pictures, or, in default, to pay 500,000 lire, the additional penalty of imprisonment, prescribed by the law, being cancelled by amnesty. The judgment was obtained under an old edict, dating from the last century, which, pending the enactment of a law by the Italian Government, remains in force in the former States of the Church. Under this edict, the gallery was declared a trust, to be held for the enjoyment of the people of Rome, this being the condition on which the gallery was bequeathed to the family of Sciarra by its founder. There has been no law enacted on this subject by the present Italian Government. Professor Villari, when Minister of Public Instruction, introduced a law, which would have regulated the traffic in works of ancient art, but his efforts came to nothing. One law prevails in Naples, another in the ex-Pontifical dominions, another in Fuscany, and others still in the kingdom of Sardinia and in the former Austrian provinces. The *Fide-commessi*, or trusts for the enjoyment of the public, exist only in the States of the Church, and the prohibition against selling applies only to them. The principal pictures covered by the judgment against Prince Sciarra are the "Violinist" of Raphael, the "Modesty and Vanity" attributed to Leonardo, but really by Luini, and a portrait by Titian. They are supposed to be now in Paris.—*N. Y. Evening Post*.

THE MANCHESTER SHIP-CANAL.—It seems plain that the great Manchester Ship-canal is going to be a source of great expense and no small danger for some time to come. At a recent meeting of the Liverpool Chamber of Commerce, one of the members said that he had recently visited the canal, and found the traffic in a most lamentable state. The condition of the bank was very serious indeed. With a large traffic and a heavy wash, the banks would go away. Even now they were being eaten away, and must cause enormous expenditure in the near future in the way of dredging. Then the so-called water from Latchford to Manchester was in such a dreadfully malodorous condition that it was almost impossible to exist there, and many people became sick. Another member said that the bad smell would not prevent ship-owners from sending their ships to Manchester, if they could make money by it; but those who had tried Manchester had lost heavily, and were dropping off. This testimony, of course, comes from a prejudiced source, but not long ago a Manchester newspaper spoke of the new docks as "huge settling tanks for sewage, chemical and manufacturing waste, and filth of every imaginable description, poured in from an industrial area unequalled anywhere for extent." A Manchester expert, who has compared the sewage of London and Paris, to the prejudice of the latter, finds the Manchester dock water worse than either. The mud deposited by the pent-up liquid, he says, is a vast decomposing mass, that at no high temperature, and after a good deal of rain, sends up gaseous bubbles to every square inch of surface. To remedy these evils a vast and costly system of sewage works is contemplated.—*N. Y. Evening Post*.

THE ARCHITECT AND ONE LAYMAN, AT LEAST.—Quite apropos of nothing at all, the *New York Commercial Advertiser* publishes the following paragraph, which shows that one more layman has acquired an inkling as to what an architect's work really is: "The amount of detail work necessary in an architect's office is simply stunning, and the five-per cent fee of the profession is really insignificant as a compensation for the arduous services exacted. Besides the large contracts, the architect has to attend to numberless petty contracts for every building. In these days of fierce competition the contractor gives as little as possible for the money he receives, and the owner gets as much as he can. The architect's position as a mediator between the conflicting interests is not an enviable one. Every day when building is lively he is called upon to decide questions of law, many of which would puzzle the average lawyer, and he is generally able to do it. Between igno-

rance and selfishness on the part of clients and contractors, the life of an architect is so harried that it is a wonder that the average duration of life of this valuable class of citizens is not shorter than it is."

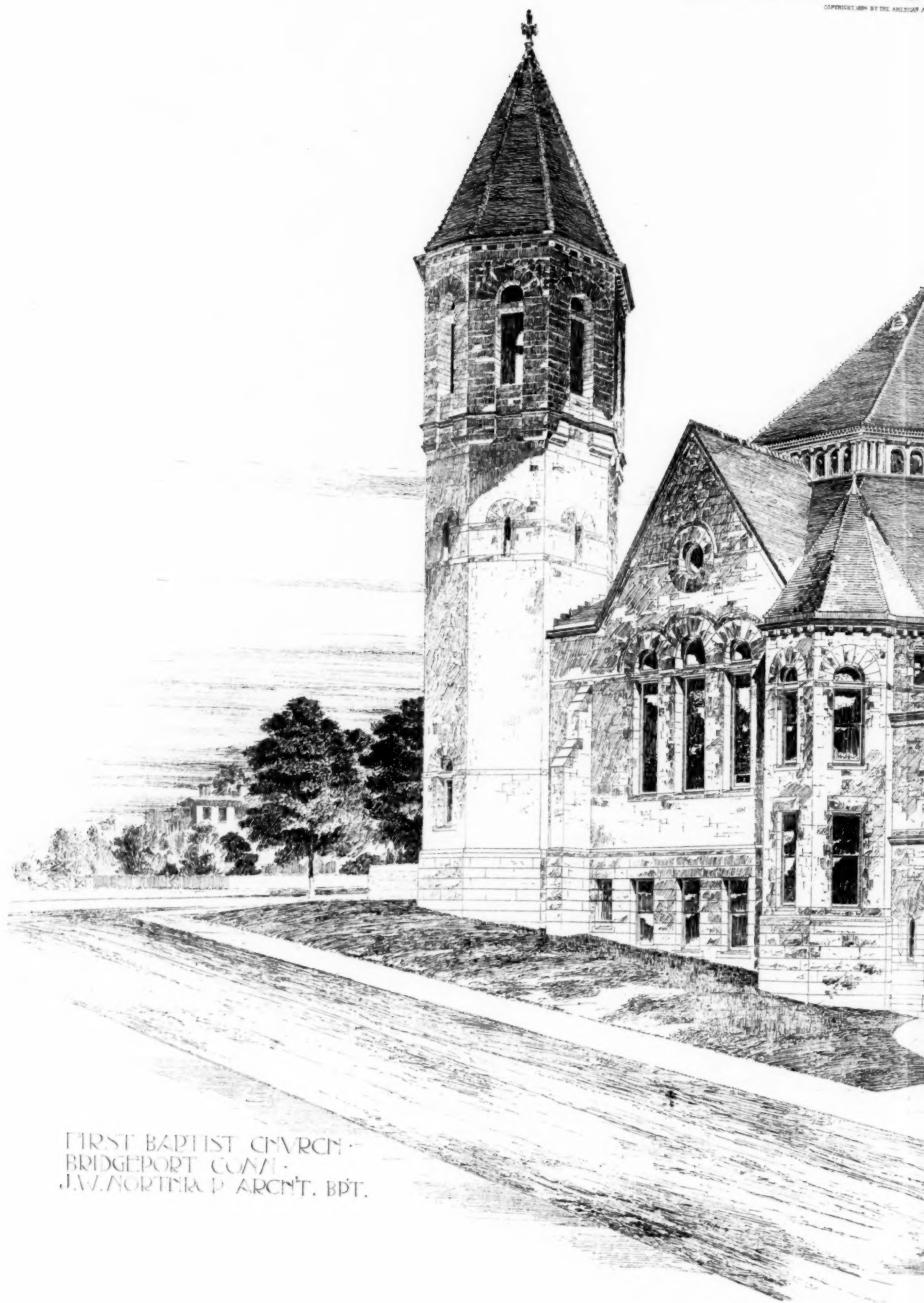
TELEPHONES IN OLD EGYPT.—It is reported that an English officer, named Harrington, has discovered in India a working telephone between the two temples of Pauj, about a mile apart. The system is said to have been in operation at Pauj for over 2,000 years. In this connection we may observe that Egyptologists have found unmistakable evidence of wire communications between some of the temples of the earlier Egyptian dynasties; but whether these served a telegraphic, telephonic or other purpose is not stated.—*St. Louis Post-Dispatch*.

A HORSE-SHOE ON A PALACE.—Just outside the fourth window of the first story of Empress Frederick's palace, at Berlin, there is a large horse-shoe cemented into the wall, which possesses a curious history and whose presence there has given rise to all kinds of strange anecdotes and legends. The true story is as follows: The palace was formerly inhabited by King Frederick William III, of Prussia. One day his son Charles, who had but recently been married to one of the lovely Saxe-Weimar Princesses, was invited to dine with him. Finding that he was very late, and knowing the strictness of his father on the score of punctuality, he directed his coachman to drive as fast as he could and the carriage positively raced up the incline to the portal. Suddenly, one of the big Mecklenburg horses lost his shoe, and the latter, flying up into the air, dashed through the first-story window and fell upon the dinner table right in front of the old King, who, declining to wait any longer for the Prince and Princess, had taken his seat at table. It just grazed his royal nose, and he was so much impressed by his preservation from injury, that he gave orders that the shoe should be cemented into the wall just outside the window through which it had come.—*Marquise de Fontenay in the Philadelphia Press*.

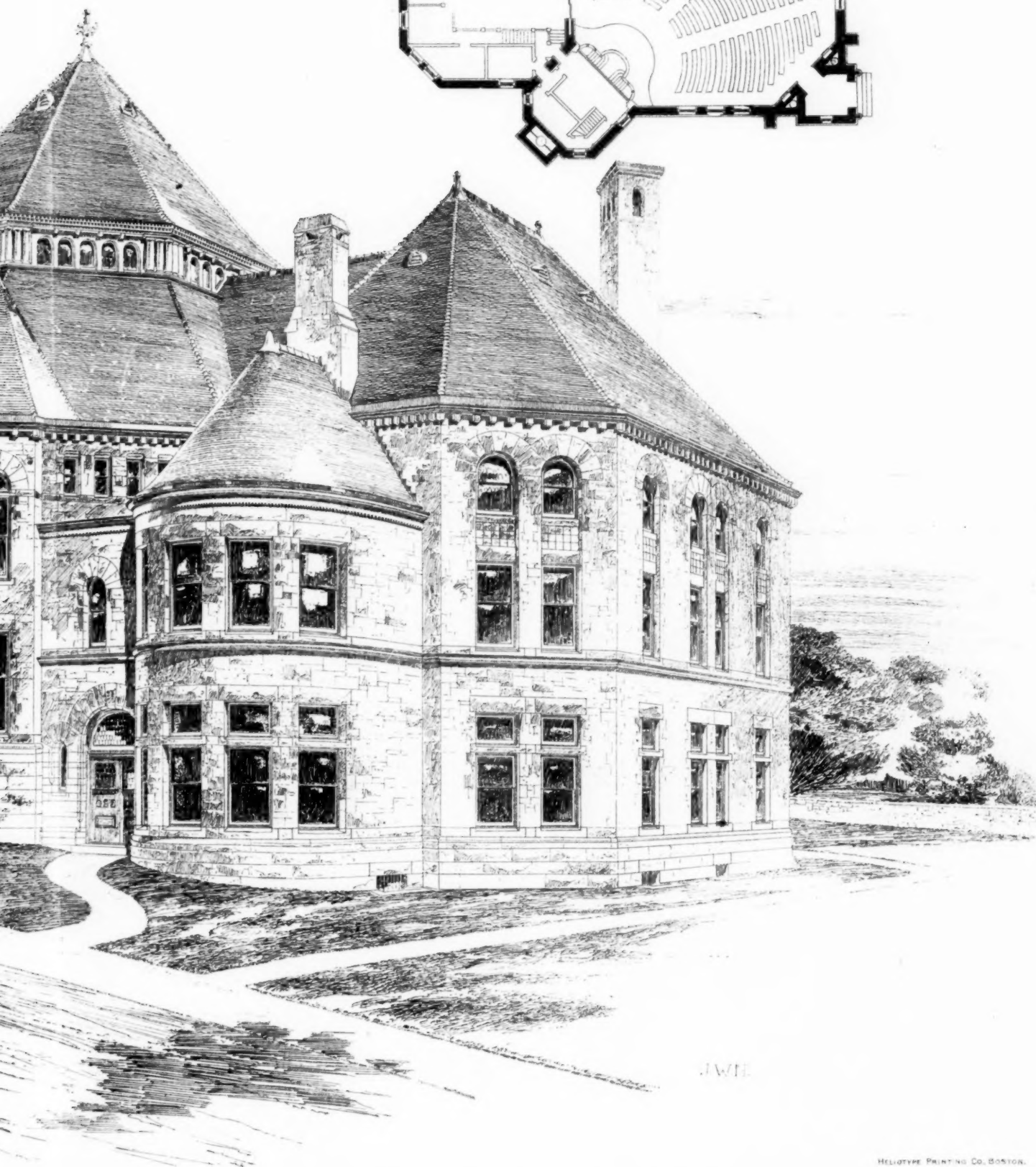
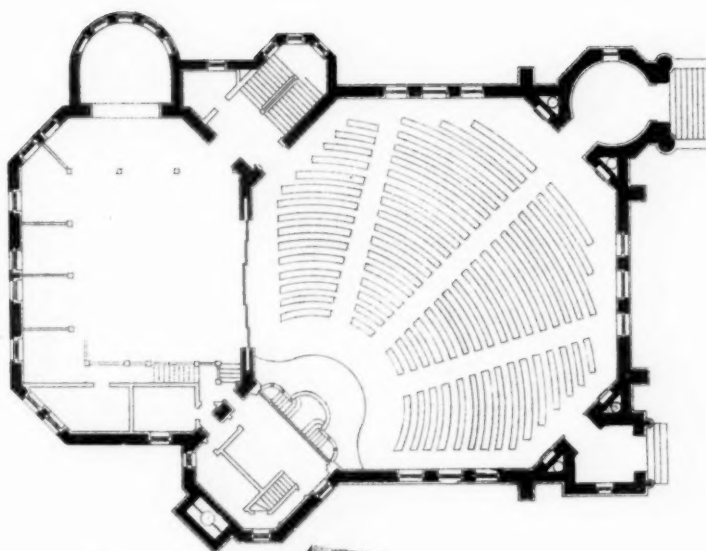
THE SOLOMONIC CANDLESTICK.—Another thing not found yet, but much searched for. It is the seven-armed, so-called Solomonic, candlestick which, after the conquest of Jerusalem by Titus, in the year 70, came with other Temple utensils to Rome. In a learned society at Berlin the much-forgotten fact was pointed out that Procopius, the Secretary of Belisarius, in his history of the war against the Vandals, gives an interesting account of these Jewish utensils. When Rome was sacked by the Vandals they came into the possession of their King Geiseric, and thus into the royal palace at Carthage. Belisarius, who vanquished the Vandal King Gelimer, brought them in 534 to Byzantium. A Jew, who saw the things in the triumphal procession, pointed out to a nobleman of the Imperial Court that these treasures were calculated to bring misfortune upon their unlawful possessor, for Rome had fallen on account of them into the hands of the Vandals, and now, for the same reason, Carthage had been taken by the Romans. Thereupon, the Emperor Justinian at once had the utensils conveyed into the sanctuary of the Christians at Jerusalem. At this point the story stops. But people are still puzzling their heads about the whereabouts of the seven-armed candlestick. Who knows whether it may not turn up some day?—*Cincinnati Commercial-Gazette*.

CEILING-PAINTINGS PART OF REALTY.—On the ceilings of the private dwelling, 1045 Fifth Avenue, are five paintings on canvas, the work of a French artist, Dupanloup, representing, respectively, "Science and Art," "Music," "Spring," "Autumn" and "Winter." The question of the removal of these paintings or retaining them on the ceilings has been the subject of a hotly-contested litigation before Judge McAdam, in the Special Term of the Superior Court. Israel Cahn and Mrs. Mary S. Hewey were the contestants, the former as the holder of a second mortgage for \$20,000 on the house and lot and the latter as the mortgagee. Mrs. Hewey, preliminary to moving out of the house, advertised all the furniture and belongings for sale at public auction. A special day was set apart for the sale of the paintings on the ceilings. Mr. Cahn protested against the sale, claiming that the removal of the paintings would so change the interior of the house as to jeopardize his mortgage security. It was contended on the other hand that the paintings were a part of the household effects. A temporary injunction was granted, prohibiting the sale, and Judge McAdam, after hearing both sides and an examination of the legal points, decided lately that the paintings must remain where they are—in other words, that they form a part of the realty and cannot be classed in the catalogue of personalty.—*N. Y. Times*.

THE RIGHTEOUSNESS OF THE PROFESSIONAL FEE.—In the following anecdote, the *St. Louis Globe-Democrat* gives a most ingenious argument *ad hominem* in explanation of the right by which a professional man makes an apparently high charge for a comparatively slight effort on his part: A well-known lawyer of Richmond was consulted on one occasion by a very wealthy, close-fisted old gentleman, who asked him his opinion on a point of law. Mr. Jones listened to the statement, and then wrote an opinion on a single sheet of legal cap, which he handed over to his wealthy friend. The latter, after glancing through it, put his hand in his pocket, and, bringing out two or three bills of small denomination, asked the usual question. When the lawyer said his charge was \$500 the seeker after legal lore made use of some remarks unfit for publication, and reminded his friend that the whole business had not occupied more than fifteen minutes. The lawyer took off his spectacles, wiped them deliberately, and pointing to his immense library of books, asked his client whether he would like to read them all carefully for \$500. The client said, of course, not. "Well, then," retorted the lawyer, "what are you grumbling about? I had to read every one of those books once, and a good many of them twice, before I was able to give you the opinion you wanted, and it is none of your business whether I read them before you came in or after. If I made you wait while I read them you would have thought my fee well-earned, but I should have caused you to lose time worth a great deal more than \$500 to you while I was doing it."

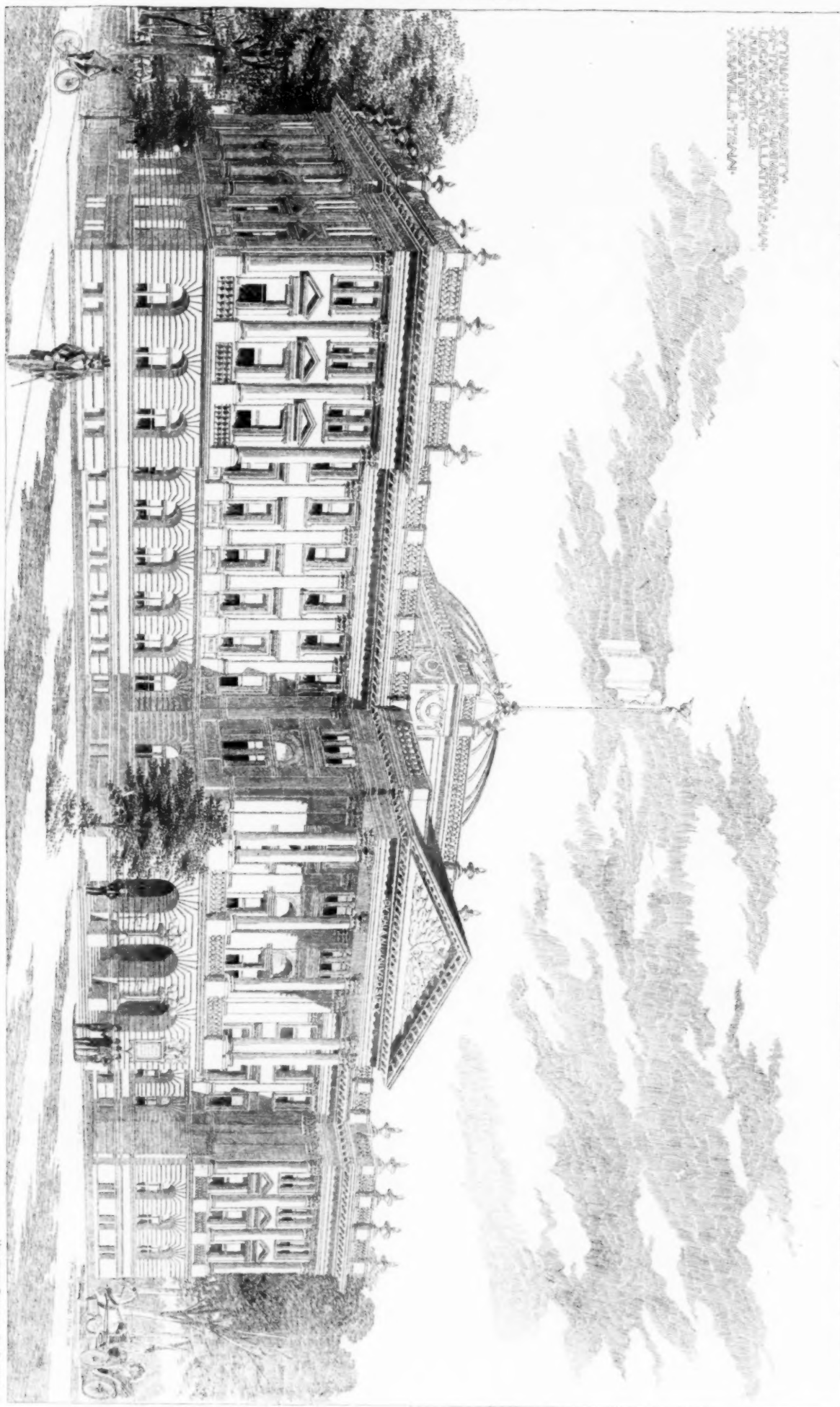


FIRST BAPTIST CHURCH -
BRIDGEPORT CONN.
J.W. NORTON, ARCHT. BDT.

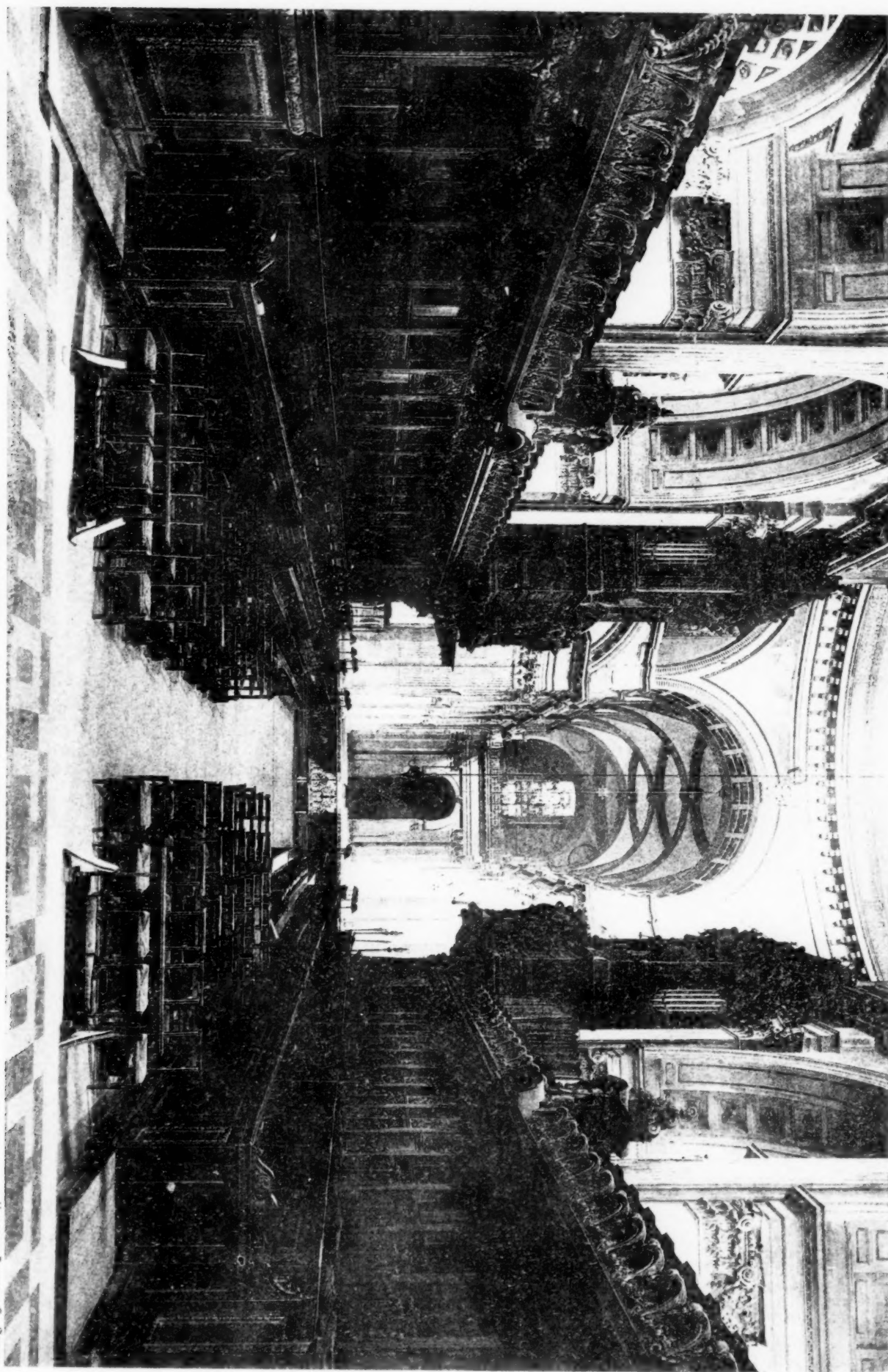


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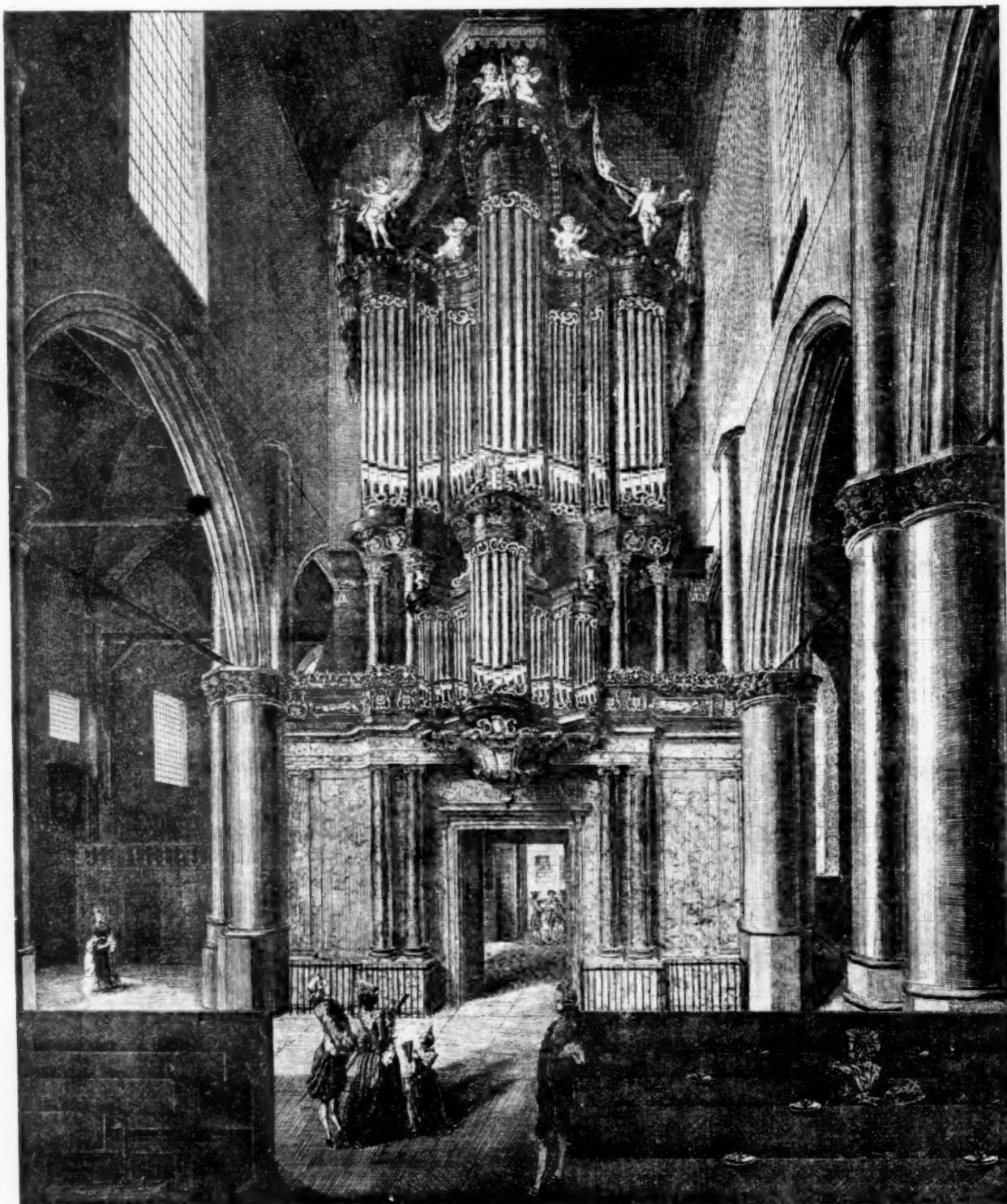


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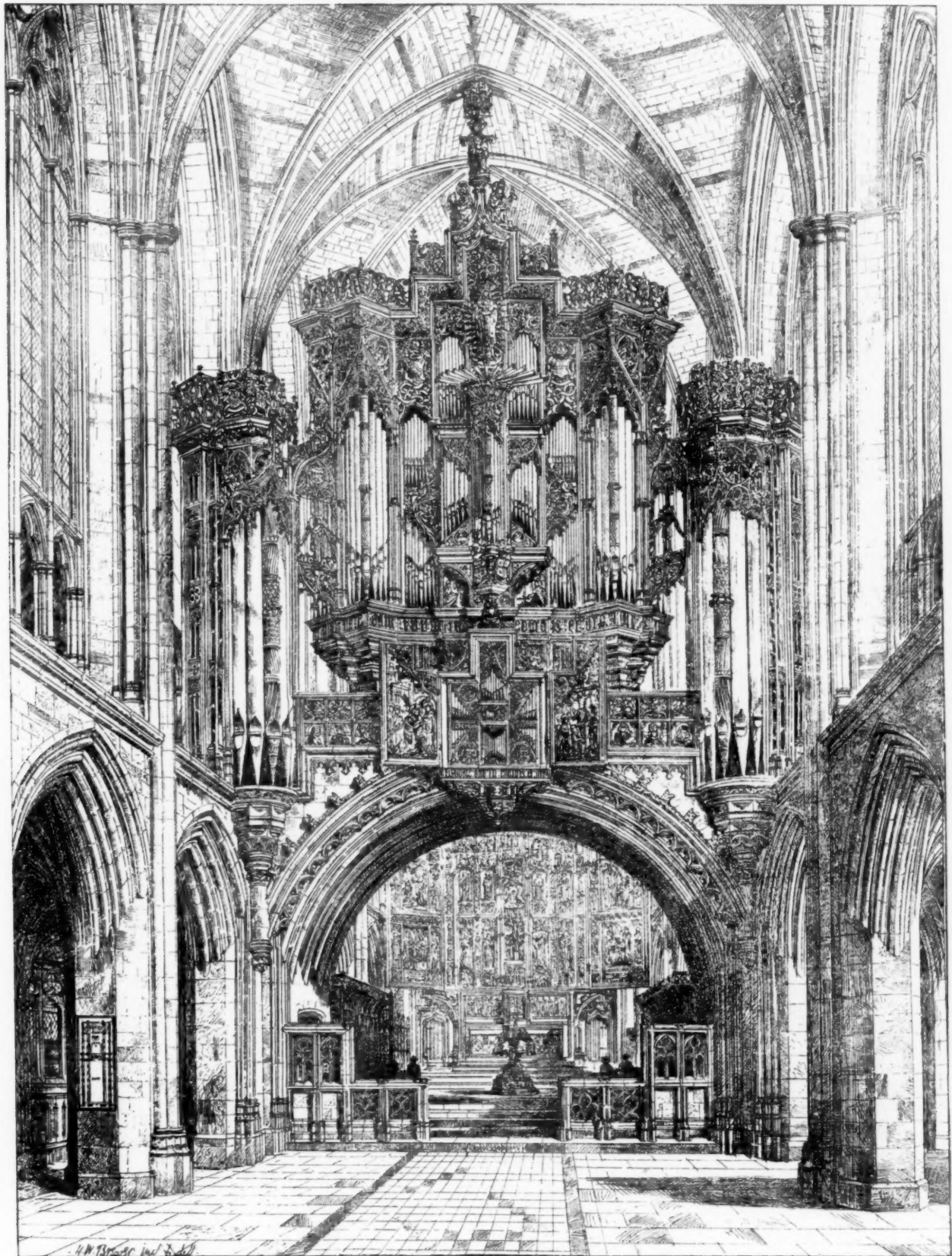


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