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SUMMARY:—

The Harrisburg Competition Injunction Dissolved.—Elevator Accidents.—Fall of the Roof of Robinson's Opera-house, Cincinnati.—Death of M. Blondel, Architect.—The New York Union Carpenters and "foreign" Material.—The Boston Arts and Crafts Society.—The New Director of the American Academy at Rome.—Street Pavements vs. Pipe and Sewers.—Tunnelling beneath a Permanent Road-bed.—A Magnetic Crane.	29
THE TENNESSEE CENTENNIAL.	31
THE HARRISBURG COMPETITION.	32
SAND-BLAST FOR CLEANING IRON.	35
SOCIETIES.	35

ILLUSTRATIONS:—

Frontispiece of the "Hotel Touraine," Boston, Mass.—Rose Windows: Plates V and VI.—The Nichols Memorial Library, Kingston, N. H.—House at Chestnut Hill, Newton, Mass.	
Accessories of Landscape Architecture, No. LXVI: Cascade and Water Organ in the Garden of the Villa d'Este, Tivoli, Italy.—A Group of Tail-pieces.	
Additional: The "Hotel Touraine," Corner of Boylston and Tremont Streets, Boston, Mass.—Main Entrance to the "Hotel Touraine."—Her Majesty's Theatre, Haymarket, London, Eng.: The Interior.—Foyer in the Same Theatre.	35
COMMUNICATIONS:—	
A Question of Commission.	36
NOTES AND CLIPPINGS.	36

THE temporary injunction, restraining the Commissioners for the Harrisburg Capitol from carrying out their proposition to act themselves as judges in a new competition has been dissolved by the County Court of Common Pleas; but by mutual consent the question is to be carried up on appeal to the higher courts. The decision of the County Court certainly seems to us to afford ground for such action. The decision, far too long to quote here, may be found in another column, but, in substance, while practically conceding that the programme of competition bound the Commission to abide by the action of the expert jury, it holds that the statute establishing the Commission is paramount to the programme; that "not only they [the Commissioners], but all persons dealing with them, are bound by its terms," and that whatever "judgment and discretion" is committed by the statute to the Commissioners "must be exercised by them alone, and cannot be committed to any other Board or person." According to this view, the Commissioners had no right, under the statute, to place the selection of the architect in the hands of the Board of Experts, so that its action in promising by the programme to do so was illegal, and the architects who competed ought to have known of its illegality. This is really the crucial point of the whole contention, and, with all due respect to the County Court, we think that there is good ground for doubting whether its decision would be upheld by a superior tribunal. In the first place, the experts did not, under the programme, select the architect, but only proposed eight architects, from among whom the selection was to be made by the Commission. This was hardly a delegation of its discretion by the Commission, since a selection among eight candidates was still left to it, but was rather a form of securing expert advice in making its decision; and this form was, without question, intentionally adopted, not only as the best, but as a means of obtaining competing designs from men of ability and honesty, who would not submit their plans exclusively to uneducated judgment. The real question is, therefore, whether such a Commission may take any expert advice; and it is hardly possible to doubt what the answer would be. It may be claimed that the Commission had no power to bind itself even to make a selection from among the eight architects recommended by its experts; but if it could bind itself by contracts for the erection of the building, it is difficult to see why it could not bind itself by the programme to competing architects; and the rejection of the experts' report not only involves a violation of a contract whose validity can only be attacked upon very technical grounds, and which public honesty requires to have upheld, but must be justified, if at all, by an interpretation of the statute which derives very little support from the history of similar cases.

ELEVATOR accidents seem to be epidemic just now. A few days ago a passenger elevator in the Hotel Waldorf, in New York, fell, fortunately without worse consequences than the breaking of the leg of one of its occupants. According to the manager of the hotel, the cause of the mishap is a "mystery," which probably "will never be satisfactorily explained"; but it is to be hoped, in the interest of his guests, that expert investigation will be able to find a reason for the phenomenon; for it is very certain that, if elevators are to relapse into the condition of mysterious appliances, subject to periodical visitations of Providence, which no one can foresee or explain, but which result in killing or maiming the people who ride in them, their use will soon be restricted, and the upper stories of office-buildings and hotels will have to seek for tenants among that small class of people whose members have such clear consciences that they do not mind the thought of a possible plunge into eternity whenever the elevator-boy pulls the operating lever.

THE roof over Robinson's Opera-House, in Cincinnati, fell in during a performance a few days ago, and three persons in the audience were killed and many injured. Mr. Rapp, the President of the Cincinnati Chapter of the American Institute of Architects, who inspected the ruins immediately afterwards, pointed out what was unquestionably the cause of the accident, by showing that the middle roof-truss, which was of pine, eighty feet in span, had given way, partly through the shrinkage which always unfavorably affects wooden trusses put together with iron bolts, and partly, as it appeared, through rotting at the joints. The roof has been in place more than twenty-five years, apparently without attention, and it is hardly surprising that it should be in bad condition; and the middle truss, which is most exposed to the influence of the warm and moist air from the auditorium, usually, in such cases, gives way first. The newspapers recall that a still more serious accident took place in the same building more than twenty years ago, when a panic was started by a foolish and causeless cry of fire. At that time, the room was crowded with people, and in the effort to escape from an imaginary danger twenty or more were killed and many injured.

AN old architect, M. Blondel, died recently in Paris, whose career will interest many persons in Paris. Originally a poor workman, M. Blondel came to Paris, like Jean Téterol, with nothing but brains and courage for an outfit, but found these sufficient to advance him rapidly in a career which, one would think, offered little opportunity for a man without special education. Arriving in the city just as the brilliant period of the Second Empire was opening, he found means for making himself useful in planning buildings, and employment of this sort soon came to him in abundance. He seems to have been endowed by nature with a lively imagination and quick apprehension; but, knowing his inadequate training, he was careful to keep himself surrounded by able assistants, and the work attributed to him was always creditable; while, after the completion of the Hotel Continental, the Société Centrale des Architectes, which does not distribute its honors rashly, and is quite able to distinguish between the merits of a master and those of his employés, awarded him its annual medal, for the best piece of domestic architecture of the year. It is not surprising that a man of such capacity and such antecedents should have been attracted by the building speculations which are nowhere more rife than in Paris. He was, we believe, the principal stockholder, as well as a director, in the company which built the Hotel Continental, and was pecuniarily concerned in many other enterprises, in addition to the simple commissions, for city and country houses, chapels and schools, which were entrusted to him. Unfortunately, his schemes did not always turn out well, and, although he had carried out more than two hundred buildings, and had directed the expenditure of many millions of dollars, old age found him poor, and he died almost in want.

THE union carpenters in New York, or rather, their leaders, threaten a new and extensive strike, on account of the use in the city of wood finish made in the West, particularly in Cincinnati and St. Louis. These cities, being near the hardwood forests of Tennessee, Kentucky and Missouri, are favorably situated for selecting and working such material, and for

many years, mouldings, doors, panelwork and flooring, in oak, ash and cherry, have been extensively made there, generally from architects' detail drawings, and shipped to the Eastern cities. Last March, the New York unions gave notice that they objected to this practice, but it has seemed to them good to refrain until now from taking any energetic steps in regard to it. Meanwhile, the journeymen, who have worked through the summer in blissful unconsciousness of the sufferings that they endured from this cause, are by no means pleased at the prospect of being ordered, just at the beginning of winter, to drop their tools, and spend perhaps months in idleness, or, as is now the common practice, in wandering about the country in search of work in other cities. As no city carpenter ever makes mouldings in these days, all such things, as well as all doors and panelling, being made by machinery in factories, it might, one would suppose, occur to the twenty thousand carpenters in New York to inquire what interest they had in depriving themselves of employment, and their children of bread, for an indefinite period in the worst season of the year, to help a few dozen machine-tenders in the planing-mills, even supposing that the latter need assistance, which is by no means certain, since such New York planing and moulding mills as can turn out tolerable work rarely lack business. Judging from the analogy of other cases, it is much more likely that the proprietors of the metropolitan planing-mills wish to enable themselves to put up prices, by excluding outside competition, than that their workmen are suffering for employment; and we advise the journeymen carpenters of the city to ascertain who are the real instigators of the demonstration before making up their minds whether to sacrifice their families for the sake of taking part in it.

THE Boston Arts and Crafts Society has been successfully established on a permanent basis, with an excellent executive council, including Prof. Charles Eliot Norton, as President, and Messrs. R. D. Andrews, C. Howard Walker, A. W. Longfellow and R. A. Cram, representing the architects, and Messrs. Arthur Astor Cary, Morris Gray, Denman W. Ross, and J. Templeman Coolidge, Mrs. J. Montgomery Sears and Mrs. Henry Whitman, as representative of the artists and amateurs. An exhibition is to be held in April, which will, it is hoped, be more extensive than that of last spring, and the main purpose of the Society, to educate those who have to carry out work requiring artistic taste, will be promoted by such means as may be found available.

IT is announced that the next Director of the American Academy at Rome, succeeding Mr. Lord, is to be Mr. S. A. B. Abbott, of Boston. Mr. Abbott is a Harvard graduate, who has for many years devoted the leisure which his family fortune enabled him to enjoy to the study of art and letters, and is, moreover, specially qualified, by matured experience in the management of property, to guide the worldly affairs of the Academy. For a long time he was one of the most active and energetic Trustees of the Boston Public Library, and has, since his resignation of that office, lived much abroad, particularly in Italy. While the selection of a person more widely known as an artist might, perhaps, lend lustre for the time to the new American school, there can be no doubt of the value to students of the varied sympathies and wide experience which Mr. Abbott will bring to his work; and the Trustees, who know better than any one else what the school needs, have, without question, chosen wisely.

IN our older and more crowded cities, the necessity for making some provision for laying and repairing pipes and wires in the streets, without stopping traffic, becomes every day more obvious. As cities increase in population, the number of gas, steam and water pipes, sewers, pneumatic tubes and electrical conduits, which must be carried through the streets increases in a still more rapid ratio, for the services which once used wires above-ground are now generally compelled by law in cities to put them under the surface of the streets. In some parts of New York there are said to be so many pipes and wires below the pavement that it would be impossible to get in another line; and, as all these things need frequent repairs, the busiest streets are subject to continual excavation and repairing—to the immense annoyance of the people who have to use them. This state of things calls loudly for some system of underground communication, and many suggestions have been made for arceding the streets, so as to give room for laying and repairing pipes without disturbing the surface. Most of the

schemes contemplate excavating the whole street, and arching the space thus gained with tile or concrete, or covering it with steel beams, laying the pavement on the deck thus formed. There is no doubt that in some streets in New York and Boston such a system must soon be adopted; but there is a much cheaper and simpler device, which has often occurred to us in watching the removal and relaying of city pavements. In these days, nearly all such pavements, whether of asphalt or granite blocks, are laid on a stratum of concrete, from six to twelve inches thick, according to the character of the soil beneath it. In order to reach a wire or pipe under the street, the granite or asphalt paving must be taken up, and the concrete floor broken through, at great expense, and when the work is done the concrete must be repaired, and the pavement replaced, at a further large expense, while the repaired pavement is never so even and solid as before it was disturbed.

THIS operation is often performed, in a given street in Boston or New York, twice in a single year, and the thought naturally presents itself to an expert in concrete work that the total cost of the two operations would be amply sufficient to pay for making the original sheet of concrete two or three feet thick, according to circumstances, and, if desirable, laying in twisted rods to give tensile strength. Such a sheet of concrete would bridge over a considerable span with safety, under a very heavy traffic. After this was done, all meddling with the pavement could be forbidden, and access to pipes and wires under it obtained by tunnelling from suitable manholes. As the upper portion of the street would form a self-supporting roof, tunnelling under it would be a very simple operation, consisting only in removing the earth; and every tunnel so made would be available for subsequent use. With proper restrictions as to the width of excavations so made, and for building division walls between tunnels approaching each other too closely, the busy streets would soon be furnished, at a small original outlay, and with an immense saving of money in the end, with excellent subways, bounded on each side by the foundation walls of the buildings on them, divided as might be necessary, and available for the reception and care of an unlimited number of gas and water pipes, electric wires and so on; while the sewers, which must, in general, be below the basement floors, would lie undisturbed below the subway floor, where they could be reached without blockading the streets.

A CURIOUS piece of machinery is in use in Chicago and elsewhere for handling large pieces of steel and iron in rolling-mills. This is nothing else than a huge magnet, which, when lowered over a plate or billet of metal, takes it up, and, by a simple arrangement of travelling cranes, transports it to the place where it is needed, and drops it gently in the spot designated. Of course, as there are no hooks or chains to adjust and loosen, the process is far more rapid than that of lifting and lowering by the old-fashioned tackle, and experience shows that the piece is held quite as securely by the magnet as by the tackle; while, as the magnet takes up red-hot or cold iron indifferently, manœuvres can be executed with it which would be very difficult with ordinary appliances. At the Illinois Steel Works, where the idea seems to have been first applied, a set of double-pole electro-magnets is used, controlled by a switch in the operating-cabin of the travelling crane. The united force of the whole set is sufficient to hold five tons without difficulty, one magnet alone being capable of lifting a four-ton ingot of red-hot steel. According to the *Providence Journal*, one of the most serious difficulties of manipulation which was experienced in the first use of these magnets was solved in the simplest manner by the observant operator of the Illinois Steel Company. Naturally, when such a magnet was lowered upon a pile of plates or ingots, it would take up several, and others would cling to these, after the familiar manner of bits of iron under magnetic influence. To get rid of the superfluous pieces, retaining only one, was a problem for which science offered no solution; but the operator noticed that when he switched off the current the pieces dropped away from the magnet one by one, a certain residual magnetism remaining in them, in various proportions, after the cessation of the current. He therefore watched carefully, and, by quickly switching on the current just as all but one piece had dropped off, he could retain this and convey it where it was wanted. A little practice made him expert, and a single plate can now be taken from a pile as readily with the magnet as with hooks and chains.

THE TENNESSEE CENTENNIAL.

TENNESSEE completed the first century of its existence as a State of the Union on the first day of June, 1896. Three years previously Tennesseans had begun to arrange for the celebration of the event in a becoming manner; and it must have required no little temerity at that time to suggest that the demonstration take the form of an exhibition of world-wide scope. The Columbian Exposition was generally recognized as having furnished a type which it would be useless to attempt to attain to and folly to imitate. To be sure, the effort to do something in that line had been made in San Francisco almost immediately afterwards, and again in Atlanta in 1895. But the success of those undertakings was not of a charac-

ter for such a postponement. Throughout 1896 and as late as the beginning of the present year the opinion was frequently expressed in

Nashville that the failure of the project would manifest itself in time to prevent the opening of the Exposition on the first of May.

The scheme when first adopted, and before its accomplishment was postponed, was the means of attracting a large number of conventions, conferences, reunions and like gatherings to Nashville during the year 1896; and it was because the proposed Exposition was to be in operation at that time that the American Institute of Architects accepted the in-



The Art Building, W. C. Smith, Architect, and Statue of Athens, Miss Enid Yandell, Sculptor.

ter to encourage the attempt being repeated so soon after and so near to Atlanta.

The times were hard and everything seemed against the success of such a scheme when it was first proposed. Nevertheless the scheme was adopted and the construction of the buildings was begun

in Nashville in October, 1896; and among the diversions furnished the attending architects when they did meet was a drive out to the Centennial Grounds to view the buildings then in course of erection.

After the postponement of the opening, the project met with much



General View of Tennessee Centennial Exposition Buildings.

in the autumn of 1895. Then it was deemed advisable to postpone the opening of the Exposition until 1897. There was a precedent

encouragement from abroad; and so the Exposition was opened on the first day of May last, under far more favorable auspices than was

at first anticipated. And the success that has attended it thus far is all that could be expected and will undoubtedly encourage those projects for future fairs of which we hear advance rumors in other localities. It is certain, for one thing, that the Nashville Exposition is attracting wider attention than the Atlanta Exposition of 1895, with which only it is fair to compare it, unless we choose to go back to the great Cotton Exposition in New Orleans in 1884 and 1885.

As an architectural display the Tennessee Exposition is a success beyond that of its promise at the time when its unfinished buildings were exhibited to the visiting architects in October, a year ago. Although manifestly unjust to compare it with the Columbian Exposition, it is extremely pleasing to find that it profits by such a comparison in one particular, and that is in the picturesqueness of its landscape surroundings. Nashville is the "Rock City," and though architecturally far from being a beautiful city, yet, when seen from Centennial Park, its domes and spires and massive buildings are so dispersed among the rocky hills that surround it as to make a most attractive background to the Exposition grounds and buildings. The dominating feature of any view of the city is the Capitol, with its cupola, modelled by Strickland after the "Choragic Monu-

tion of the Parthenon. The History Building, in the immediate vicinity, was intended to be a reproduction of the Erechtheum, but it became necessary to sacrifice the Caryatide porch of that building in order to add a wing on each side and secure much-needed additional room. The Fine-Arts and the History Buildings are intended to be permanent and are considered fireproof. In front of the Fine-Arts Building is a colossal statue of Pallas Athene, executed in Paris, from a design by Miss Enid Yandell, of Louisville, Kentucky, after Fröhner's "Pallas" in the Louvre.

The Tennesseans devised a happy name for what was known at Chicago as the Midway Plaisance; and they have taken pains that their "Vanity Fair," while presenting the same class of entertainments on a smaller scale, shall exclude any features which would be likely to reflect discredit upon the dignified character of their Centennial Exposition.

ARTHUR HOWARD NOLL.

THE HARRISBURG COMPETITION.

It is not possible to know whether the architects who have a personal interest in the late competition for the State-house at Harrisburg will find the support necessary to enable them to carry their case up to the Court of last resort, but there are so many points involved upon which it is desirable to get a ruling that we hope means will be found to make the Harrisburg Competition a leading case.

As there seems to be some chance that we have not heard the last of this singular case, it is worth while to publish the full text of the opinion which has influenced Judge Simonton to dissolve the injunction laid upon the majority of the Capitol Commissioners at the instance of Messrs. Cope & Stewardson, of Philadelphia, and Messrs. Alden & Harlow, of Pittsburgh, two of the competitors who were especially invited to take part in the competition, though whether their designs were amongst the eight favorably reported by the Board of Experts we do not know.

Architects are so prone to imagine that their knowledge of contracts is at



The Woman's Building.

ment of Lysicrates." This seems so near as to be almost a feature of the Centennial display.

In landscape gardening, Centennial Park presents nothing strikingly original; yet it would be difficult to suggest any improvement in the treatment of the two hundred acres of ground or in the disposition of the buildings. Artificial twin lakes bridged by the "Rialto" give variety to the landscape.

The buildings are all designed by local architects; and these have made no attempt to free themselves from the spell of the "White City" of 1893, under which, of necessity, they worked. But they have not been unconscious of the fact that the necessity for adaptation occasionally brought with it the opportunity for improvement even in the designs of the buildings of the White City; and so we find, for example, the Administration Building of 1893, in modified form and with added grace and improved proportions, in the Agricultural Building at Nashville. A local interest is conserved by adopting the "Hermitage," the home of the great Tennessean, Andrew Jackson, as the motive for the Woman's Building; and it is made in another sense a woman's building, by being the work of a woman architect, Mrs. Sara Ward-Conley.

Of the various local buildings, that of Shelby County, or, more properly speaking, the City of Memphis, is the most original in conception, and attracts more comment, favorable and otherwise, than any other building on the grounds. The name of the metropolis of West Tennessee has furnished the suggestion, and the building is in the form of a pyramid, with a porch on each side supported by Egyptian columns.

Undoubtedly the dominating architectural feature of the display is the Fine-Arts Building. With the exception of some variations from the original in the sculptures of the pediments, it is a reproduc-



Lake Wautega and the Building of the City of Memphis.¹

least equal to that of a full bench of judges that it is worth while to afford them, now and then, a little light on the manner in which the legal mind looks upon their contentions, and we feel that the opinion of the learned justice will be read with interest. We fancy too that many a reader will discover portions of the argument where the author appears to stray beyond the limits of sound logic or fair inference.

JUDGE SIMONTON'S OPINION.

By the Court—The averments of the bill are substantially as follows:—

That defendants are members of a commission appointed as provided by the Act of April 14, 1897 (P. L. 19), entitled: "An Act to provide for the erection of a new Capitol Building for the use of the General Assembly, and to secure plans for said building and such other buildings to be erected in the future as may be necessary for executive and

¹ We are indebted to the *Churchman* for the cuts that illustrate this article, and desire to record the fact that all illustrations of the Tennessee Exposition are copyrighted by Thuss Bros.

departmental purposes, and making an appropriation therefor." That pursuant to the powers and authority vested in them by this act, said Commissioners devised a method for the selection of an architect by competition and specially invited plaintiffs, who are architects, to take part in this competition; and that plaintiffs accepted the invitation. That the Commissioners published a programme, stating the terms of the competition, one of which provided for the selection of a board of experts to pass upon the merits of plans submitted, and that such experts were selected.

"That by Article 15, Part 2 of the programme, it was provided that the Board of Experts should select from among the designs submitted to them, which should not have violated any of the requirements of the competition, those eight which in judgment of the Board were best, and should give to each a rank in accordance with its merits. That by Article 20 of Part 2 of the programme the Commissioners undertook and agreed, after examination of the designs so presented by the Board of Experts and due consideration of their report and recommendations, to select one of the eight designs most satisfactory in their opinion and upon ascertainment, in the manner provided for in Article 21 of Part 2 of the programme, of the name of the designer of the plan thus chosen as the most satisfactory, to award to such author the prize of the competition by designating and appointing him as the architect of the Legislative Building on the terms stated in the programme governing such appointment.

"That they further undertook and agreed to award a first and second medal to the authors of the designs which should be placed respectively second and third in the competition.

"That plaintiffs, at great labor and expense, prepared drawings, designs and specifications which conformed in all respects to the conditions and requirements of the programme, and duly delivered them to the Secretary of the Commission.

"That the Board of Experts selected the eight designs which in their judgment were best, assigning to each one its respective rank of merit, and presented these eight designs to the Commissioners, with a report of the proceedings of the Board conforming in all respects to the requirements of the programme.

"That thereupon it became the duty of the Commissioners under the provisions of the programme, after examination of the designs so presented and due consideration of the report and recommendations of the Board of Experts, to select the one of the said designs in their opinion the most satisfactory, and to designate it as the first choice; and thereupon to identify the author of this design in the manner provided for in the programme, and to award to him the prize of the competition by designating and appointing him the architect of the Legislative Building. And that it was their further duty, under the procedure provided for in the programme, to award the first and second medals to the authors of the designs which were respectively second and third in the competition.

"That the Commissioners have refused to carry out the procedure of the programme, and to select an architect from among the authors of the eight designs which the Board of Experts reported to them, and have notified plaintiffs that they have cancelled and annulled the provisions of said programme.

"The Bill further alleges that the plaintiffs will sustain great and irreparable injury by this action of the Commissioners, that they have no adequate remedy at law for the injury thus done them, and prays the Court to restrain the defendants from selecting an architect in any manner save that provided in the programme, and to decree them to specifically perform the provisions thereof for the selection of an architect, and to select as architect the author of one of the eight designs reported to them by the Board of Experts, under the provisions of the programme, with a prayer for further relief."

To this Bill defendants (all except Daniel H. Hastings) have demurred, assigning as grounds of demurrer that the Court has no jurisdiction; that plaintiffs have no such interest in the subject-matter as will entitle them to relief; and that the Commission provided for by the Act of April 14, 1897, is a deliberative body invested with discretionary powers in respect to the selection of an architect and the adoption of plans, and that the matter complained of in the Bill are wholly within the discretionary powers of the Commissioners, and a Bill will not lie either to review or control the exercise of their discretion.

At the hearing on October 2, 1897, before the argument began, the counsel for the respective parties agreed "that the argument of this case upon demurrer shall go upon the understanding that, in the determination of the demurrer, the Court shall be entitled to consider the report of the Board of Experts to the Commission, and the resolutions passed by the Commission under said report; and that a supplemental circular of invitation, dated the 10th of June, 1897, was mailed by the Commission to all the competing architects, although the complainants have no recollection of ever having received such report."

Looking at these documents thus brought on the record, we find that on July 31st the Board of Experts reported to the Commission that they had given to the thirty designs submitted to them the most careful consideration and study and had selected the eight designs, from among the thirty, which in their judgment were the best, grading them from first to eighth, according to the respective merits; discussing these eight designs somewhat in detail, especially commending three, and stating that "these three designs, Nos. 21, 12 and 18, as already stated, seem to us the only ones worthy of your serious consideration. None of the remaining ones possess the same interest or show the same order of ability in their authors."

That on September 9, 1897, the Commissioners met, and after consideration of the report of the Board of Experts adopted certain preambles and resolutions, among which was the following:—

"Whereas, The said Board of Experts have presented eight designs, which they report cannot be constructed without modification for the amount of the appropriation, thus disregarding the mandatory provision of the programme limiting cost, and none of which are for this reason, as also for reasons relating to light, air and other matters, satisfactory to the Commissioners; now, therefore, after due consideration, the Commissioners do disapprove of the action of the Board of Experts in excluding from the competition the two designs referred to

in their report and in not examining said designs, as also all designs submitted to them, and making report as to the relative merits of the same; and do also, for the reasons stated in the foregoing preamble, decline to approve the report submitted by said Board." The Commissioners further resolved and directed that after the names of the several authors of designs submitted by the several architects had been ascertained their Secretary should "return the several designs to their respective authors, with the information (*inter alia*) that 'None of said designs have been prepared in accordance with the mandatory provision of the programme limiting cost,' and all of the designs were accordingly returned to their respective authors.

Dissatisfied with this action of the Commission, plaintiffs subsequently filed the bill before us, to which, for the reason already stated, defendants demurred.

The authority vested in, and the duties imposed upon, the Commissioners must be ascertained from an examination of the Act of April 14, 1897, above referred to. After declaring who shall be members of the Commission, the Act provides that they "are hereby authorized and instructed to proceed with the least possible delay to procure the construction of a new Capitol Building upon or near the site of the old Capitol Building in the City of Harrisburg, of such size and form as may in their judgment be adapted to the present and future use of the General Assembly, its officers, committee and employés." It further enacts that "The said Commissioners shall, with the least possible delay, advise with and employ an architect or architects and adopt plans for the construction of said building, and such other buildings to be erected in the future as may be necessary for Executive and Departmental purposes," and that "The said Commissioners shall not, in the erection and construction of said new Capitol Building, including the architect's services, contract for any expenditure in excess of the sum of \$550,000."

It thus appears that certain of the provisions of the Act are mandatory upon the Commissioners. Thus the site of the building is expressly designated, and the style of architecture and the limit of price are prescribed. Other matters are left to the discretion and judgment of the Commission, such as the size and form of the building and its adaptability to the present and future use of the General Assembly, its officers, committees and employés; the employment of an architect or architects, and the adoption of plans for the construction of the building.

This Act is the Charter of the rights and duties of the Commissioners; and as it is a public Act, not only they, but all persons dealing with them, are bound by its terms. Whatever it commands them to do, they are bound to do; whatever it forbids, they can not do; and whatever judgment and discretion is committed to them must be exercised by them alone, and cannot be committed to any other board or person.

The law on this subject is thus stated in *Lyon vs. Jerome*, 26 Wend., at page 494: "In all cases of delegated authority, where the delegation indicates any personal trust or confidence reposed in the agent, and especially where such personal trust or confidence is implied by making the exercises and application of the powers subject to the judgment or discretion of the agent or attorney, the general rule is that these are purely personal authorities, incapable of being delegated to another unless a special power of substitution be added. From an early period of our law, this rule has been laid down as to powers given by will or deed to executors, trustees and attorneys to sell land, make leases, etc.; and modern decisions have extended the principle to the less formal appointments of factors, brokers and other lawful agents. How much more strongly, therefore, must the rule apply to the delegation of authority by the State to its high public officers made with the solemnity of a Legislative Act?"

The provisions of the programme relied upon by plaintiffs must therefore be considered in the light of this principle. The programme is elaborate and voluminous, and after examining carefully its numerous parts and paragraphs, we are not surprised that a difference of opinion as to its purpose should have arisen between the Board of Experts and the majority of the Commissioners; and that this difference should be emphasized by the counsel on the opposite sides of this case. That this difference of opinion did exist as early as September 3d is apparent from the statement of one of the experts at the meeting of the Commissioners on that day, that "the whole purpose of the Competition had been misunderstood; that it had been established solely with the view to the selection of an architect and not the selection of plans. It also appears from the tenor of the action of the Commissioners, which shows that they were looking for and passing upon the merits of plans with a view to obtain such as would, in the language of the act constituting the Commission, secure "a new Capitol Building of such size and form as may in their judgment be adapted to the present and the future use of the General Assembly, its officers, committees and employés." And as we have said, this difference of opinion was emphasized on the argument when counsel for plaintiffs contended that the Competition was designed to secure the selection of an architect and not of a design or plan for the building; while the opposite counsel maintained that its purpose was to obtain a satisfactory plan, with the understanding that the author of the plan satisfactory to the Commission was to be employed to supervise its execution.

There certainly are paragraphs and clauses in this elaborate programme which give color to each of these constructions. The programme is entitled "Programme of a Competition for the Selection of an Architect for the New Capitol Building to be erected by the Commonwealth of Pennsylvania in Harrisburg." Paragraph 5 of Part 1 states that "the object of the Commissioners in instituting this Competition is to select and appoint an architect to design and supervise the new Legislative Building to be erected in Harrisburg, Pa." Paragraph 7 of the same Part states that "The prize of this competition is the award of a commission to design and supervise the erection of said Legislative Building." These paragraphs and some others give plausibility to the argument that the design of the competition was the selection of an architect.

On the other hand, in Paragraph 1 of Part 3 it is stated that "The problem before the Commissioners is, therefore, one of securing a

general scheme for the arrangement and design of a group of Capitol Buildings, in order that the new Legislative Building, in its arrangement, location and architectural character, may bear a convenient and harmonious relation to a complete system of which it will eventually form a part." And in Paragraph 2 of the same Part it is stated that "The problem to which the attention of the architects is invited is, therefore, that of a general design, comprehending the Legislative and several Departmental structures in addition to the present Executive Building. Such design must permit the erection of a new Legislative Building without disturbance to either of the two old Departmental Buildings, must accept the Executive Building and the proposed Hartman Monument as fixed elements of the design and must not exceed certain limitations of cost."

And in Paragraph 35 of Part 2 it is stated that "Upon the appointment of said architect all designs not accepted will be returned forthwith at the expense of the State to their authors, and the names of those not among the authors of the eight designs selected by the Board of Experts will not be publicly announced, and no use will be made of any of the drawings not accepted, nor of anything contained in them which is original as to this Competition, except by written permission of its author and on payment of proper compensation therefor as determined by the Board of Experts." And Section 36 declares that "None of the unaccepted drawings will be exhibited to the public or to any competitor without the written permission of its author."

These and other provisions of the programme which might be quoted certainly tend to give weight to the argument that the primary purpose of the Competition was to procure plans for the Capitol Buildings, coupled with the provision that the author of the plans accepted should be employed as the architect to carry them into execution.

We find it very hard to believe that this Board of Commissioners would have understandingly adopted the elaborate scheme contained in the programme for the sole purpose of selecting an architect. We do not believe that any business man of ordinary discretion about to expend the sum of \$550,000 immediately, and perhaps twice that amount prospectively, would select and employ an architect to prepare plans and supervise the erection of buildings to cost that amount without ever having seen him, without any knowledge whatever of his character, his habits, his executive ability or his pecuniary responsibility, or any other knowledge of his fitness except that to be acquired from inspecting a plan for the buildings drawn by him. Yet this is what the Commissioners must have agreed and intended to do if the sole purpose of the competition in question was to determine the selection and employment of an architect.

The programme itself recognizes the unquestionable fact that the result of such a method of selecting an architect might be the selection of one who would be "an unsuitable person to be placed in charge of this work"; and it attempts to remedy the evil of such a result by providing that in that event the architect employed "shall, at the request of the Commissioners, associate with himself in the performance of his duties an architect who shall be acceptable to the Commissioners. And such associated architect shall be paid a portion of the fee provided herein to be paid to such appointed architect, such portion to be as agreed upon by both architects, or in the event of their failure to agree, then as fixed by the Board of Experts." In that event the outcome of the scheme would be, that the Commissioners would have employed as their principal architect "an unsuitable person to be placed in charge of the work," and would have associated with him another architect whose compensation they could not fix. And if this were done there would certainly be danger, which no prudent man would willingly encounter, that this architect and the chief architect, being an unsuitable person, would not act in harmony in carrying on the business. For these and other reasons which might be stated, we think, if the sole purpose of this scheme was the selection of an architect, it is unfortunate that it was ever adopted by the Commissioners.

But in the view we take of the case, it is not necessary to determine what was the primary and what the secondary purpose of the competition. It was certainly, in some order, designed to secure both an architect and a plan. But the fundamental question, in our opinion, is whether the Commissioners have, by any of the provisions of the programme, delegated to the Board of Experts the right, in whole or part, to control their discretion, either in the selection of the architect, whom the Act requires them to employ, or in the selection of plans for the buildings.

We understand it to be conceded by the counsel of plaintiffs that the Commissioners could not delegate to the Board of Experts, or to any other person or persons, any discretion committed to them by the Act, with respect to the selection and employment of an architect, or the adoption of a plan; and whether we are right in so understanding, or not, there can be no doubt that this is the law. But counsel contend that the Commissioners have not done this. They refer us for their position on this question to the opinion of the learned Attorney-General reported in 6 Dist. R. 597, wherein he says:—

"There is no limitation upon the powers of the Commission, found in the Act of Assembly, in the selection of an architect. They could have selected one if they had so chosen to do the work without competition. They chose, however, to exercise their discretion for what they believed to be the best interests of the Commonwealth, and invited all architects to exhibit their skill. The Commissioners all being laymen, and architecture being a science with which they were not familiar, they asked the Board of Experts to determine the ability of the architect from the design he submitted. Of this all competitors were fully advised, and there can be no reasonable ground of complaint. I therefore conclude, first, that the Commissioners, neither in Paragraph 11 of Part 1, nor elsewhere in the programme, have abdicated, as such Commissioners, or delegated to others, the powers vested in them; second, that it is the duty of the Commissioners to select as architect of the new Capitol Building the author of one of the eight designs reported by the Board of Experts as exhibiting the best talent."

This is a clear and concise statement of the claim made on the argument on behalf of the plaintiffs. But we regret that after the most careful consideration we are unable to concur in this conclusion.

It will be conceded that the Act itself does not make it the duty of the Commissioners to select an architect from the eight recommended by the Board of Experts. Guided by the Act alone, it would be their duty to select and employ from all the architects available the one whom they believe the best for their purpose. It is now their duty to select one of the eight, the range of their discretion has at least been much circumscribed. And this has been done, not by a process of exclusion carried on by themselves but by a Board of Experts to whom they have delegated the power to exclude. The learned Attorney-General says, "They ask the Board of Experts to determine the ability of the architect from the design he submitted," and he decides "that it is the duty of the Commissioners to select as architect of the new Capitol Building the author of one of the eight designs reported by the Board of Experts as exhibiting the best talent." But if it be their duty to select one of the eight thus nominated by the Board of Experts, they have certainly precluded themselves from exercising an independent judgment, and from giving only the weight to the opinion of the experts to which, in the exercise of their sound judgment and discretion, they may think it entitled.

It will be seen by a reference to Paragraph 4 of Part 2 that the Commissioners have had nothing whatever to do with the selection of a majority of this Board of Experts. The Commissioners selected one. The second was selected by a majority of the six architects asked to compete, and the third was selected by the first and second. The result is that instead of exercising the discretion given to them in the Act, to "advise with and employ an architect or architects," the only discretion which the Commissioners retained was to select and employ one of eight propounded to them by a Board of Experts not selected by the Commissioners when there were thirty seeking the employment. We are wholly unable to see how it can be even plausibly argued that this does not imply a delegation or surrender of their discretion.

It is true, as is said by the Attorney-General, that "There is no limitation found in the Act of Assembly upon the powers of the Commission in the selection of an architect." It rests in their discretion to determine what information and advice they will obtain and how they will obtain it to assist them in making a selection. As is said in *Lyon vs. Jerome*, above cited, at page 495: "In cases of authority to represent private individuals the person thus entrusted may have occasion to depend upon scientific or professional advice for the guidance of his own judgment. He may even in matters out of the scope of his own information rely entirely upon the authority of his adviser or assistant, yet he is still bound to form a judgment for himself and to assume its responsibility." He cannot contract in advance that he will adopt the advice of his counsellor and thus abdicate his own judgment instead of exercising it.

The application of the principle does not depend upon the proportion of the discretionary power which is delegated or surrendered. If the Commissioners may agree that they will surrender their discretion and decline to consider the availability of twenty-two out of thirty architects and plans submitted it certainly cannot be said that they could not surrender it as to twenty-six, and if as to twenty-six, then certainly as to twenty-eight; yet in that case no one would, we think, contend that they had not limited or circumscribed the discretion vested in them by the express terms of the Act.

Counsel contend that the Commissioners exercised the discretion committed to them by the Act when they provided for the selection of the Board of Experts in the manner prescribed in the programme and practically confided to them the selection of the architect. We cannot see the force of this argument. The discretion vested in them is to "advise with and employ an architect," not to determine the manner in which they will bind themselves to employ one named by others.

It can hardly be necessary to cite authorities to show that the Commissioners cannot delegate to others the discretion vested in them by the Act. We refer, however, to a few cases of the many which may be found which declare this to be a well-established principle.

In *Lyon vs. Jerome*, 26 Wend. 485, already cited, the Court, construing an Act of Legislature, decided that the authority conferred by the Act upon Canal Commissioners to enter upon and take possession of the land of individuals for the construction of a canal could be executed only by the Commissioners in person or under their express direction; and that an engineer or any other sub-agent of the State could not lawfully exercise such power except by their express direction, although the construction of the canal in the vicinity of the premises entered upon had been confided to the engineer. Senator Verplanck, delivering the opinion of the Court, said: "The language of the statute, as well as the nature of the trust itself, shows that this is an authority confided to the judgment and discretion of the Commissioners themselves, for the impartial discharge of which they are responsible to the State." And in conclusion he said: "I have only to add that it is of the greatest public importance to establish the general rule of agency, that delegated authority cannot be delegated again without special power so to do as governing the official powers, acts and contracts of our State officers."

In *State vs. City of Paterson*, 34 N. J. L. 167, it appeared that the Charter of the city provided "that the Mayor and Aldermen of the City of Paterson are hereby authorized and empowered to purchase a city-hall or other buildings, or to purchase a suitable site or sites and erect thereon one or more public markets, city-hall or other public buildings, and to employ suitable architects, engineers and other persons necessary to accomplish the purpose hereby contemplated, and to pass all such ordinances, rules, regulations and by-laws for the establishment, maintenance, using, renting and governing said markets, city-hall or other public buildings as they may deem proper."

The Board of Aldermen of the city, intending to put in effect the provisions of this and other sections of their Charter, passed a resolution appointing three Commissioners "to proceed in the premises according to law and purchase a site and build a public market thereon." The power of the Mayor and Aldermen to appoint this Commission being contested, the Court said: "The Mayor and Aldermen are to purchase a suitable site or sites and erect thereon one or more public markets, and to employ suitable architects, engineers and other persons

necessary to accomplish these purposes. They are, therefore, required to use judgment and discretion in determining the suitability of the site, and also of the architects, engineer and other persons employed to accomplish the purpose. This they must use and cannot delegate to others without express legislative authority."

In *Birdsall vs. Clark*, 73 N. Y., 73 (29 Am. Rep. 105), where it was provided by a city charter that the sidewalks should be built and maintained at the expense of the adjacent property owners, and that when the Common Council should order work thereon and notify the owners thereof if it was not done within the specified time the Common Council should, by contract or otherwise, cause it to be done, the Common Council directed the superintendent of streets, by resolution, to cause such work to be done when the owners neglected to do so. The plaintiff brought an action to enjoin the superintendent from doing such work in front of the plaintiff's premises. The Court held that the action was maintainable; that the power conferred by the Charter, involving the exercise of discretion as to the time and manner of the performance of the work, must be pursued by the Council, and could not be delegated. And several cases are cited in the note at the end of this case in the American Reports.

Several other questions were argued by the Counsel, which it would be necessary to consider if the view which we have taken above was not decisive of the case, but as it is we shall not discuss them.

It will, of course, be understood that we are concerned with the legal questions only, and have nothing to do with, and express no opinion upon, the propriety of the action, professional or other, of either or any of the parties to this controversy.

We sustain the demurrer on the ground that the Commission provided for by the Act of April 14, 1897, is a deliberative body invested with discretionary powers in respect to the selection of an architect and the adoption of plans for a new Capitol Building; that the terms of the programme referred to in plaintiff's bill, if enforced, would limit the discretion and the duty to exercise their independent judgment committed to and imposed upon them by the Act, and, therefore, a Court of Equity will not enforce these provisions of the programme. The demurrer is, therefore, sustained and the bill is dismissed at the costs of the complainants. J. W. SIMONTON, P. J.

SAND-BLAST FOR CLEANING IRON.

It is when we pass from the road to the railway bridges that the uncleaned, unpainted, unkempt, and generally neglected appearance in which these structures are allowed to remain becomes unpleasantly conspicuous. One would be inclined to suppose that, apart from all aesthetic or other considerations, some attention would be given to the fact that the safety, durability, and what might be termed the life of a bridge, or of any other metallic erection, is very closely connected with the proper protection and preservation of its external surface. Now the painting process, even as usually conducted, is not *per se* a laborious or particularly troublesome one, although it must be admitted that it is frequently a terribly tedious operation. It is just possible that the introduction of the "spray-painter" will remove these defects and inconveniences; but we are not just at present concerned with this somewhat novel method of laying on pigment. Previously to painting any metallic surface it is absolutely necessary that it should be perfectly clean and entirely free from all old paint, rust, scale, and incipient corrosion of every kind. There are two especial reasons for these stringent precautions. One is, that if any rust or other source of corrosion be left underneath the new coat of paint, the latter will afford no protection whatever, and the corrosive action will continue in all its pristine vigor. The other reason is that very frequently, nearly always in fact, the new paint will not adhere to a dirty or foul metallic surface, although it may appear to do so when first laid on. After a very short time cracks and blisters make their appearance, the paint peels off, and the naked metal is exposed to all the destructive effects of climatic influences.

Recently it has been proposed to dispense with the services of the wire brush and the chisel, and to employ a jet or blast of sand projected with an adequate amount of force, by compressed air or other suitable means, upon the metallic surfaces to be cleaned. The installation required is simple, inexpensive, and easily managed, as will be at once apparent from the following brief account of the cleaning of an iron bridge in America, of several spans, whose united length amounted to some 1,200 feet. A reservoir for compressed air, a bellows, a sand-box, some flexible tubes connecting the reservoir with the hollow rod from which the sand-blast issued, completed the cleaning apparatus. The steam for driving the bellows can always be easily obtained, either from a small portable engine, or, in large towns and cities, from an ordinary steam-roller. It is evident that the diameter of the sand projector tube, that of the orifice or spout, and its length, are details which can be varied to suit the circumstances of each particular example. In the case alluded to, the projecting flexible tube was given a general diameter of 2½ inches, diminished at the nozzle to ¾ inch, and a maximum length of thirty feet. A space of about 6 inches separated the nozzle of the tube from the surface acted upon by the blast. So far as rapidity of execution is concerned, it must be recollected that a built-up iron or steel bridge—for example, one on the open-web or lattice principle—is not by any means a favorable specimen of construction to experiment upon. There are so many different members whose surfaces all lie in so many different planes, and abundance of holes and corners and rivets besides, that they prolong the work far beyond the time that would be needed to clean the same total amount of surface better disposed and arranged for receiving the action of the sand-blast.

In order to prove how the shape and contours of the structure governed the time in which the respective cleanings were conducted, the following figures may be quoted: In the case of a bridge of the type we have selected, an area of about 2 square feet was effectually cleaned per minute. But when the bottom of an iron ship was submitted to the same process the rate was exactly double—that is, 4 square feet to the minute. It is also claimed for the sand-blast that it does the work better, and more thoroughly, than the ordinary hand method; that it does not in any manner injure the material; and that it effects a considerable saving in the erection of temporary scaffolding and false work, which is probable enough. A word of caution may be put in here. Great care is required in applying the sand-blast to the cleaning of cast-iron, and, indeed, it should not be so used by any one not well skilled in the employment and manipulation of it. It may be scarcely necessary to mention that for the cleaning of stone or brickwork, and many other materials of construction, the sand process is utterly unsuited.—*T. C. in the Building News.*



ST. LOUIS CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS.

At the last regular, or eighth annual, meeting of the St. Louis Chapter of American Institute of Architects, held on September 21, 1897, the following named gentlemen were elected to serve as officers for the ensuing year:—

President, Charles K. Ramsey; Vice-President, Montrose P. McArdle; Secretary, Alfred F. Rosenheim; Treasurer, William B. Ittner. A. F. ROSENHEIM, Secretary.



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

FRONTISPIECE OF THE "HOTEL TOURAINE," BOSTON, MASS. MESSRS. WINSLOW & WETHERELL, ARCHITECTS, BOSTON, MASS.

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

ROSE WINDOWS: PLATES V AND VI. *

THE NICHOLS MEMORIAL LIBRARY, KINGSTON, N. H. MESSRS. DWIGHT & CHANDLER, ARCHITECTS, BOSTON, MASS.

The library is being built of weather-faced granite from old stone walls in the town and the outside finish of oiled cypress and a red slate roof. The inside finish is of quartered-oak and cypress.

HOUSE AT CHESTNUT HILL, NEWTON, MASS. MESSRS. CHAPMAN, FRAZER & BLINN, ARCHITECTS, BOSTON, MASS.

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

ACCESSORIES OF LANDSCAPE ARCHITECTURE, NO. LXVI: CASCADE AND WATER ORGAN IN THE GARDEN OF THE VILLA D'ESTE, TIVOLI, ITALY.

A GROUP OF TAIL-PIECES.

[Additional Illustrations in the International Edition.]

THE "HOTEL TOURAINE," CORNER OF BOYLSTON AND TREMONT STREETS, BOSTON, MASS. MESSRS. WINSLOW & WETHERELL, ARCHITECTS, BOSTON, MASS.

[Gelatine Print.]

MAIN ENTRANCE TO THE "HOTEL TOURAINE."

[Gelatine Print.]

HER MAJESTY'S THEATRE, HAYMARKET, LONDON, ENG.: THE INTERIOR. CHARLES J. PHIPPS, ARCHITECT.

FOYER IN THE SAME THEATRE.

COMMUNICATIONS

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

A QUESTION OF COMMISSION.

MONTREAL, CAN., October 18, 1897.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,— Would you kindly give in your valuable paper your opinion on the following matter?—

A party gives order to an architect for plans, specifications and bill of quantities, said quantities to be paid by contractors.

Now the building is stopped after all the foundation is finished and all other contracts are given and signed by proprietors.

The works are stopped on account of one of the proprietors having left for parts unknown.

What commission could the architects claim from proprietor for preparing plans, details, specification, call in tenders?

Are the quantities to be paid by contractors or proprietor?

An answer would oblige

Yours truly, DOMINION.

[The usual charge in such cases, exclusive of any charge for quantities, is a sum equivalent to 3 1-2 per cent on the proposed cost of the building, with 1 1-2 per cent additional, for superintendence, on the cost of such work as has been already completed. As it was originally understood that the contractors were to pay for the quantities, it seems to us that the charge can only be made to them, and that they must pay it. If the misconduct of one of the proprietors has deprived them of the benefit of their contracts, they can call upon him, or upon whoever is responsible for his acts, to reimburse them for the cost of the quantities, as well as for the other damages that they have suffered, but they cannot refuse to pay the architect what they agreed to pay him for his service, on the ground that the service has been made of no value to them by the conduct of a third party, over whose actions the architect had no control. — Eds. AMERICAN ARCHITECT.]

NOTES AND CLIPPINGS

STARTLING EFFECTS OF THE EARTHQUAKE IN INDIA.—The official report of the Chief Commissioner of Assam on the recent earthquake contains some interesting details. He describes it as an unprecedented calamity in India. The huge monoliths in the Khasi Hills, whose origin goes back beyond the dawn even of legend, and which have survived every shock in the past, are now snapped and broken. In some cases they have been torn out or thrust forth from the earth. The most interesting archaeological relic in the province, a massive stone bridge of great antiquity in the Kamrup district, is shattered. The character of the shocks was everywhere of an almost uniform type—a sharp vibration, accompanied by a rocking or heaving of the earth, and a loud rumbling noise. In the hills gigantic landslips plunged mountainsides in ruin and buried villages beneath them. On the plains the rivers were agitated—the banks crumbled and fell in, plunging whole hamlets into the stream. At places geysers leaped forth, spouting sand and water to the height of several feet. The ejection had such force that the covers of wells solidly embedded in mortar were hurled aside, while the wells were choked with many feet of sand. At Nowgong a tank or reservoir, 14 feet deep, was left dry and filled up with fine sand to within a foot of its top. Huge fissures running east and west opened in many directions. In the plains attached to the Garo Hills district, crater-like pits appeared, averaging about 6 feet in diameter, and one of them reported to be 40 feet across. From the fissures, sometimes 16 feet deep, discharges of sand and water threw up pieces of coal, peat, resin, masses of half-petrified timber, and a black earth hitherto unknown in those localities. They revealed, as it were, the vestiges of an old surface of the earth where vegetation had flourished and man had possibly labored, now buried deep underground. But the general feature of the eruptions seems to have been sand, spouted up by "innumerable jets of water, like fountains playing," to a height of 4 feet. All masonry buildings within the area of extreme incidence of the earthquake were completely wrecked, massive bridges were broken to pieces, high embanked roads were cracked and in many places subsided to the level of the adjacent country. And all this ruin was effected in a few minutes, often in a few seconds. — *N. Y. Evening Post.*

STREET-WASHING IN OLDENBURG.—Undoubtedly one of the best methods of keeping streets clean is that of frequent flushing with water, says the *Electrical Engineer*, especially when the sewer outlets are so planned as to permit all the solid refuse to be washed out through them along with the water. In many cases, however, the supply of city water does not permit the liberal flow necessary for a thorough flushing, so that this luxury can be permitted only when an excess of water is on hand. The city of Oldenburg, near Lubeck, has provided an independent water-supply for the especial purpose of keeping the streets washed, this being one of the numerous sanitary improvements which have resulted from the cholera epidemic of 1892 in the north seaports. In order to avoid the cost of new buildings, the pumping plant is placed in one of the electric stations where space was available, the water being taken direct from the river Hunte, the pumps being driven by belts from turbines. A system of high-service mains, altogether distinct from the regular water-supply, is connected with this pumping plant, and a pressure of 65 feet head is maintained by an automatic

regulator, permitting the excess of water to be returned to the river whenever the demand is reduced. This high-service pumping system supplies thirty-seven flushing hydrants, placed at such points of elevation as to permit the streets to be cleared by the slope. The hydrants are so arranged that their ordinary discharge is through openings in the curb at the gutter line, but they can also be immediately converted into fire-plugs for hose attachment, either for street sprinkling or for fire-engine supply. Since the river water at Oldenburg is unfit for household use, the plant above described is available only for the special purposes for which it was planned, but the expense of thus using a local supply of brackish water for purposes of street washing and fire service is so moderate that the method is worthy of consideration in other localities. The entire cost of the Oldenburg plant was less than \$7,000—that is, less than \$200 per hydrant—while the economy in street cleaning alone would soon repay this, after which the cost of operation would be much less than by any other method, not to mention the superior sanitary advantages.

COLLAPSE OF A FRENCH DOME.—On last Palm Sunday the cupola of a church in Brouse, in the department of Tarn, fell during service; seven of the worshippers were killed and about thirteen were wounded. Recently MM. Bonnet & Crouzet, architects, with MM. Pellissier & Miquel, contractors, appeared before the Tribunal Correctionnel at Havre, being accused of "homicide par imprudence" in connection with the catastrophe. The church was constructed in 1867, and it exemplified the showy and insecure but cheap style which is now too common in the French provinces. The vault apparently was only a sort of shell or basin lying on the walls, without any groining or security against expansion. During last winter the rain attacked it in two ways, first by entering through the courses, and secondly by causing the walls to settle. The large congregation was also declared to be one of the factors in the collapse, for the people were not uniformly spread over the floor, and as it sank the walls became unstable. The original architect, M. Rivet, died some years ago, before the church was completed, and the responsibility was therefore cast on MM. Crouzet & Bonnet, who succeeded him. They were also accused of having erected a belfry which was too heavy for the foundations. The architects claimed the benefit of the prescription in the Code Napoléon (2270), by which after ten years architects and contractors are discharged from guaranteeing the works they have made or directed. The Tribunal allowed them to go free; M. Pellissier, the contractor, who declared that he followed faithfully the architect's plans, was also exempted; but before arriving at a decision an inquiry was ordered into the share taken by his partner in the construction of the building. — *The Architect.*

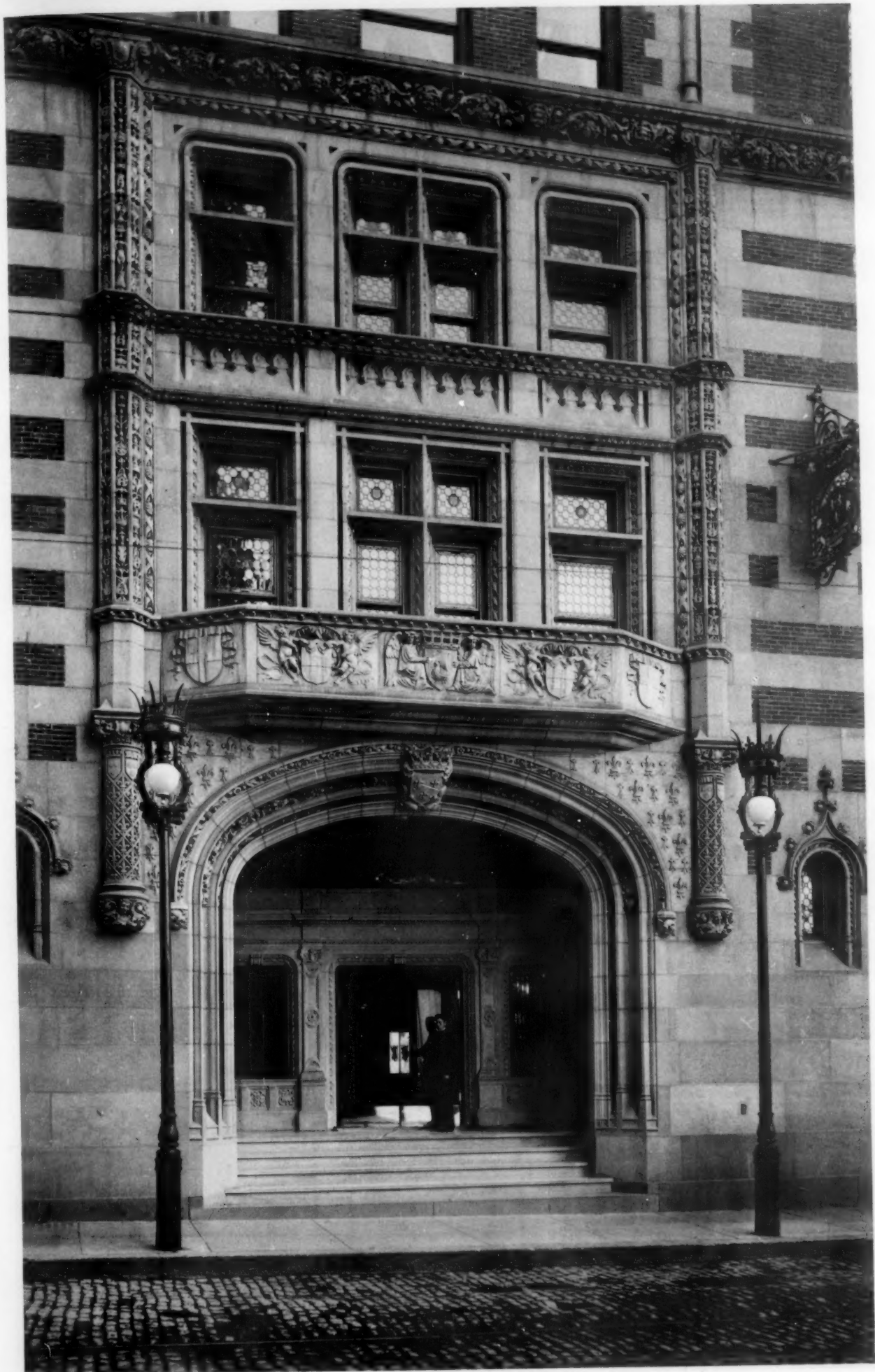
THE "FIRE-FIEND" AS A DYER.—Elberfeld, Germany, was recently the scene of a fire which will probably result in a crop of lawsuits against the Elberfeld Aniline Color Works for damages caused to goods, furniture, clothing, etc., by flying particles of color borne far and wide by the wind during the progress of the blaze. Within a radius of ten kilometres from the place of the fire serious damage was done to wash on the line, household furniture, newly-painted houses, and open stock of merchandise by those flying particles of aniline of all colors and shades, which were deposited on the injured articles from the burning factory. In the Roman Catholic Church of St. Laurentius, at Elberfeld, the vestments have been stained to such an extent that they more nearly resemble the dresses worn by a harlequin in a pantomime. Fire underwriters, to whom innumerable claims for damage have been presented, deny liability, and the opinion prevails in legal circles that the Color Works can be made responsible, if it can be shown that the fire occurred through some negligence on the part of the company or its employés. Other lawyers claim that the value of any insured furniture, clothing, or other goods injured in the way above mentioned can be recovered from the insurance offices direct, as the loss was as clearly traceable to fire as any from water or smoke only in cases where the goods are not hurt by the fire—leaving it to the insurance offices to recover from the Aniline Color Works. — *Fire and Water.*

PETERBOROUGH CATHEDRAL.—The Dean announces that the restoration of the north gable of the west front of Peterborough Cathedral is now completed. Those portions of the great arch and of the gable above it which have been taken down and rebuilt contained in all 2,006 facing stones. Of these 170 only were found so decayed that they had to be replaced by new ones; the remaining 1,836 have been put back again into their original positions. The scaffolding is being removed, and the completed portions of the work can now be seen. The result fully justifies the committee in the action which they have taken. The central and southern gables, portions of which are in a very dangerous condition, will next be dealt with as the architect, Mr. J. L. Pearson, R. A., may advise, but for the completion of this work funds are urgently needed. — *The Architect.*

FORECLOSURE SUIT BROUGHT AGAINST THE HUDSON RIVER TUNNEL.—Suit has been brought in the Supreme Court by the Farmers' Loan and Trust Company against the Hudson River Tunnel Railway Company to foreclose a first mortgage of \$2,750,000 on the company's property, franchises, etc. The Trust Company, in its complaint, declares that the Tunnel Company is hopelessly insolvent and unable to pay its outstanding indebtedness; that the defendant cannot secure the means for paying its overdue obligations, and that it is necessary for the protection of the bondholders that the property of the Tunnel Company be sold without delay. — *N. Y. Tribune.*

HEIDELBERG CASTLE OLDER THAN SUPPOSED.—While repairing the Heidelberg Castle ruins the other day some workmen came across a window group, the style of which revealed the fact that that famous castle was not begun in 1411, as heretofore believed, but about 200 years earlier. — *N. Y. Evening Post.*

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MAIN ENTRANCE: HOTEL TOUR
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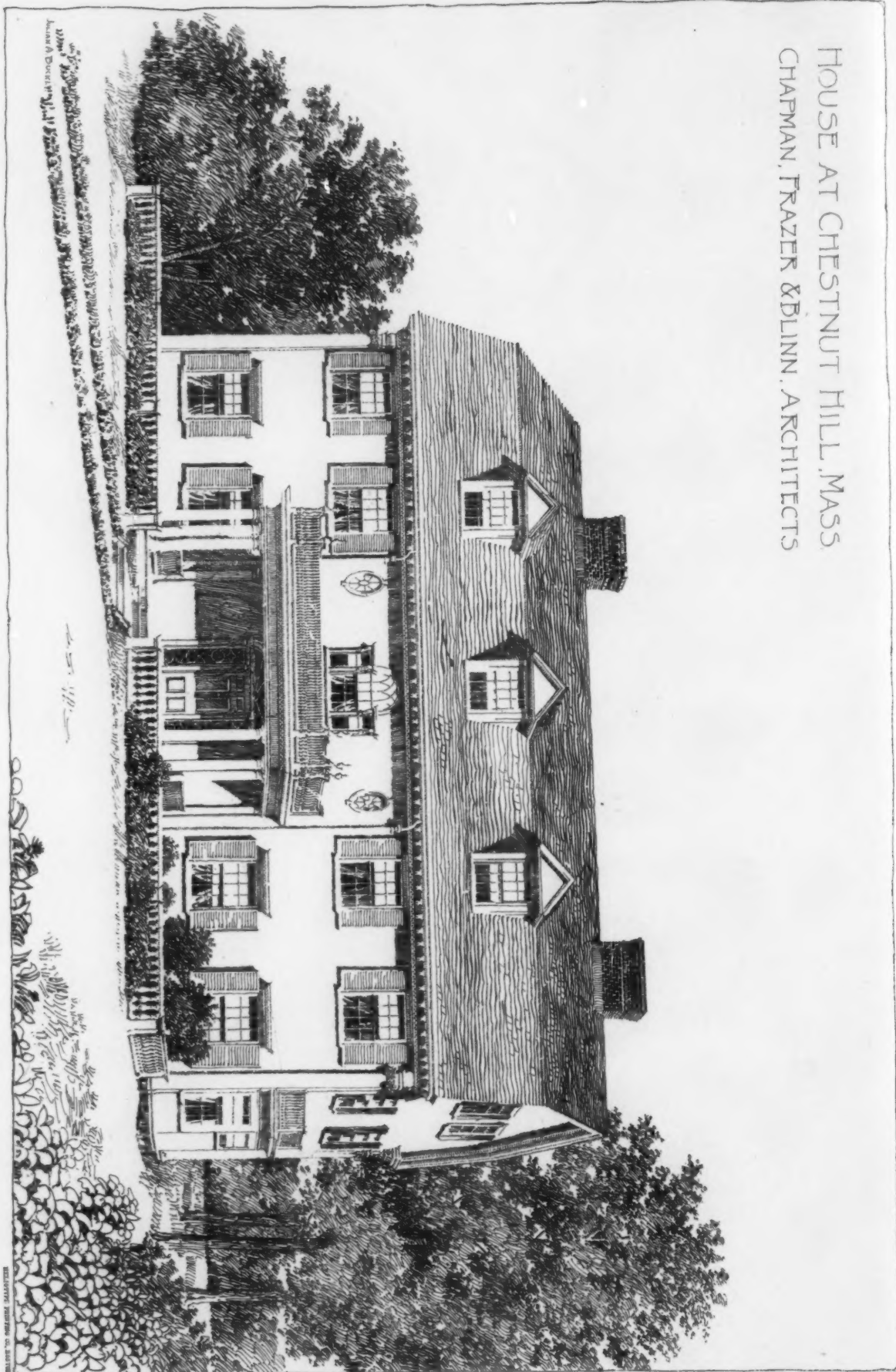


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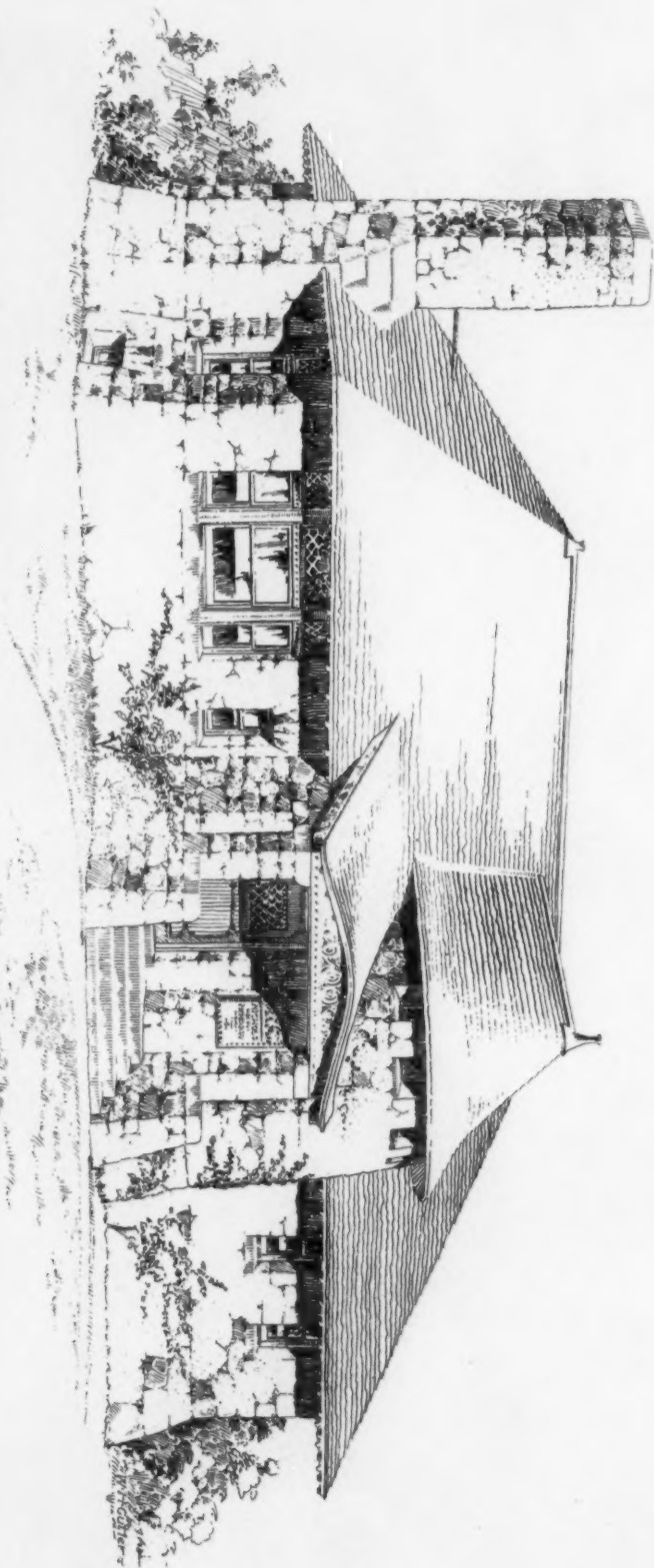
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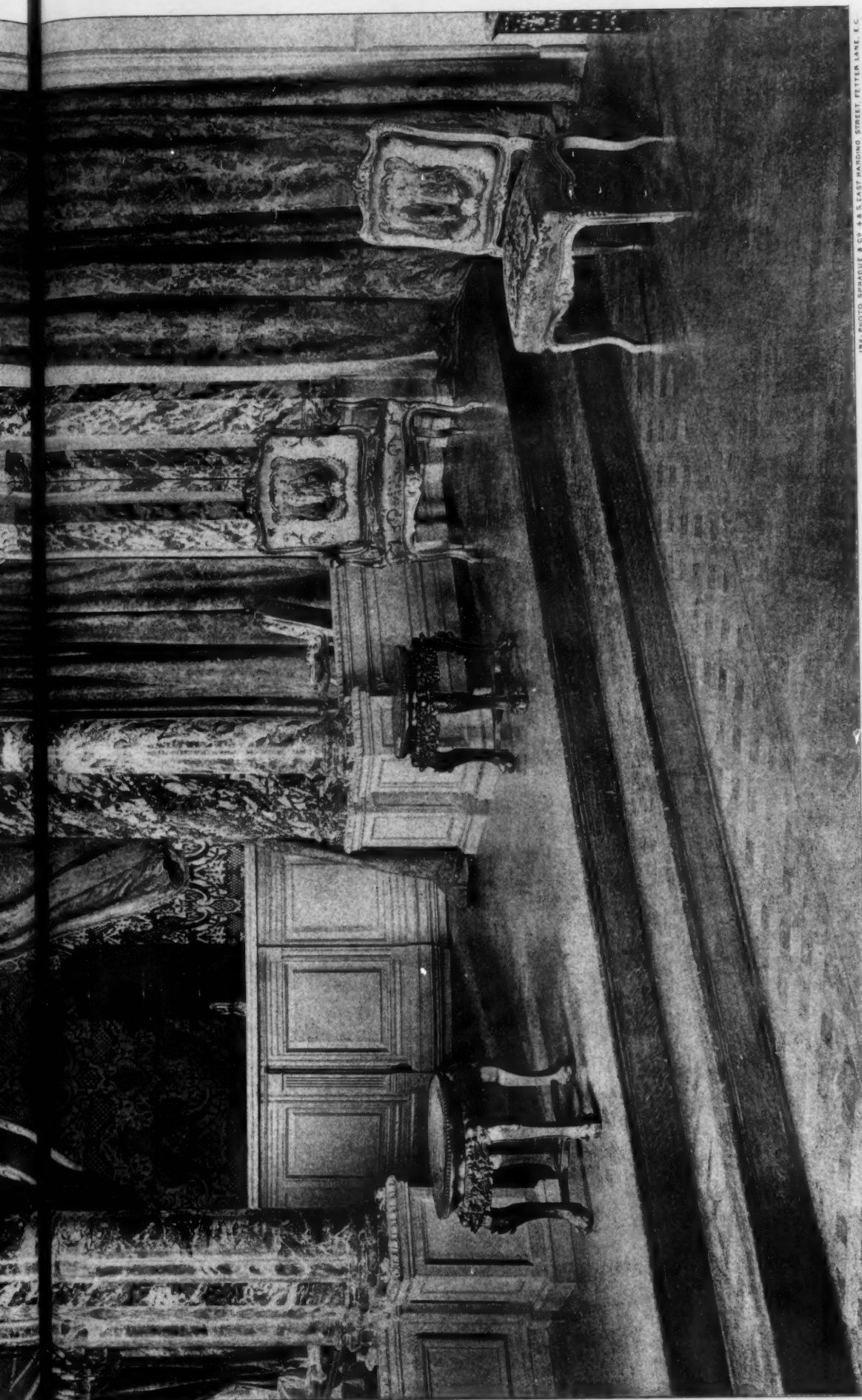


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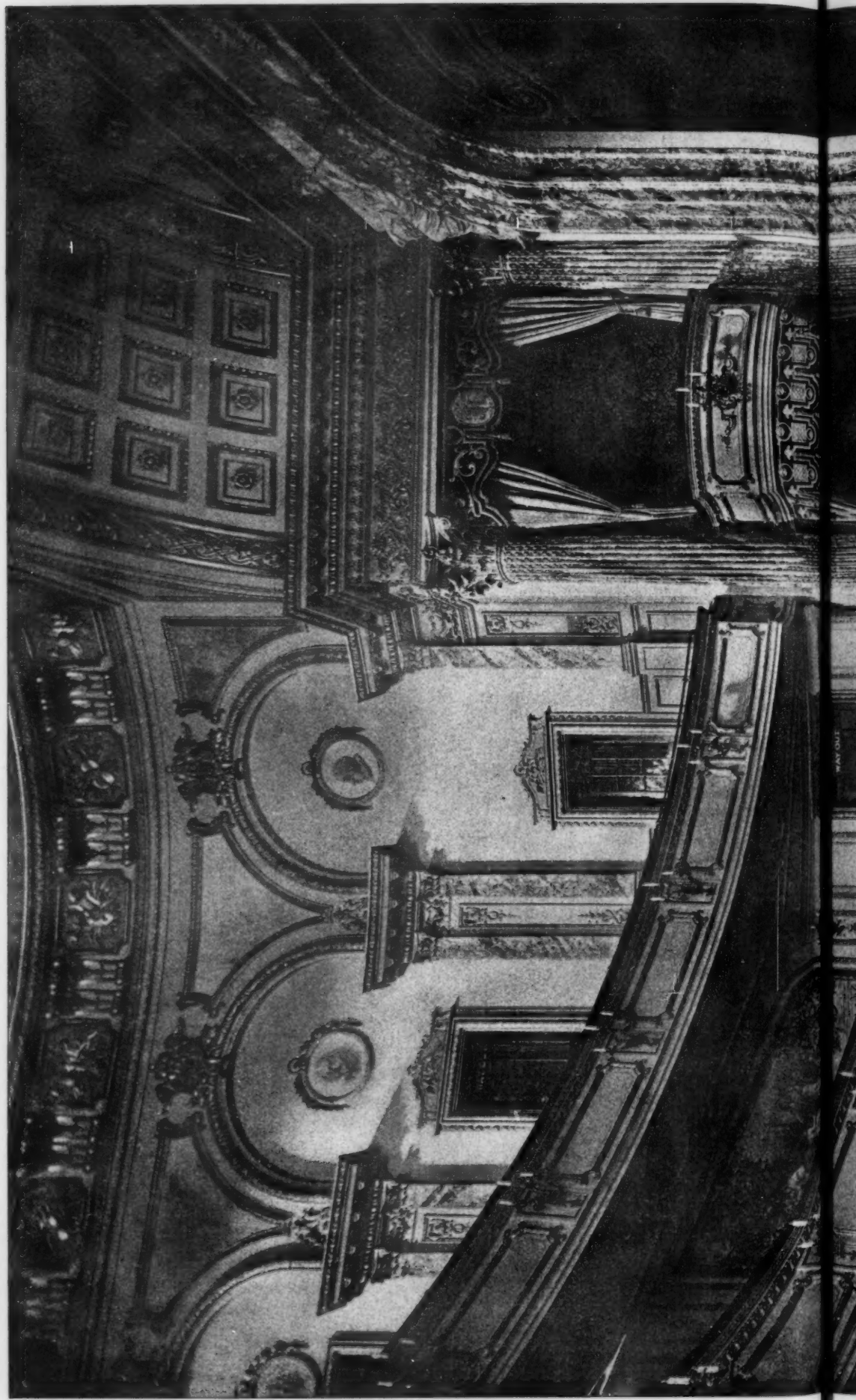


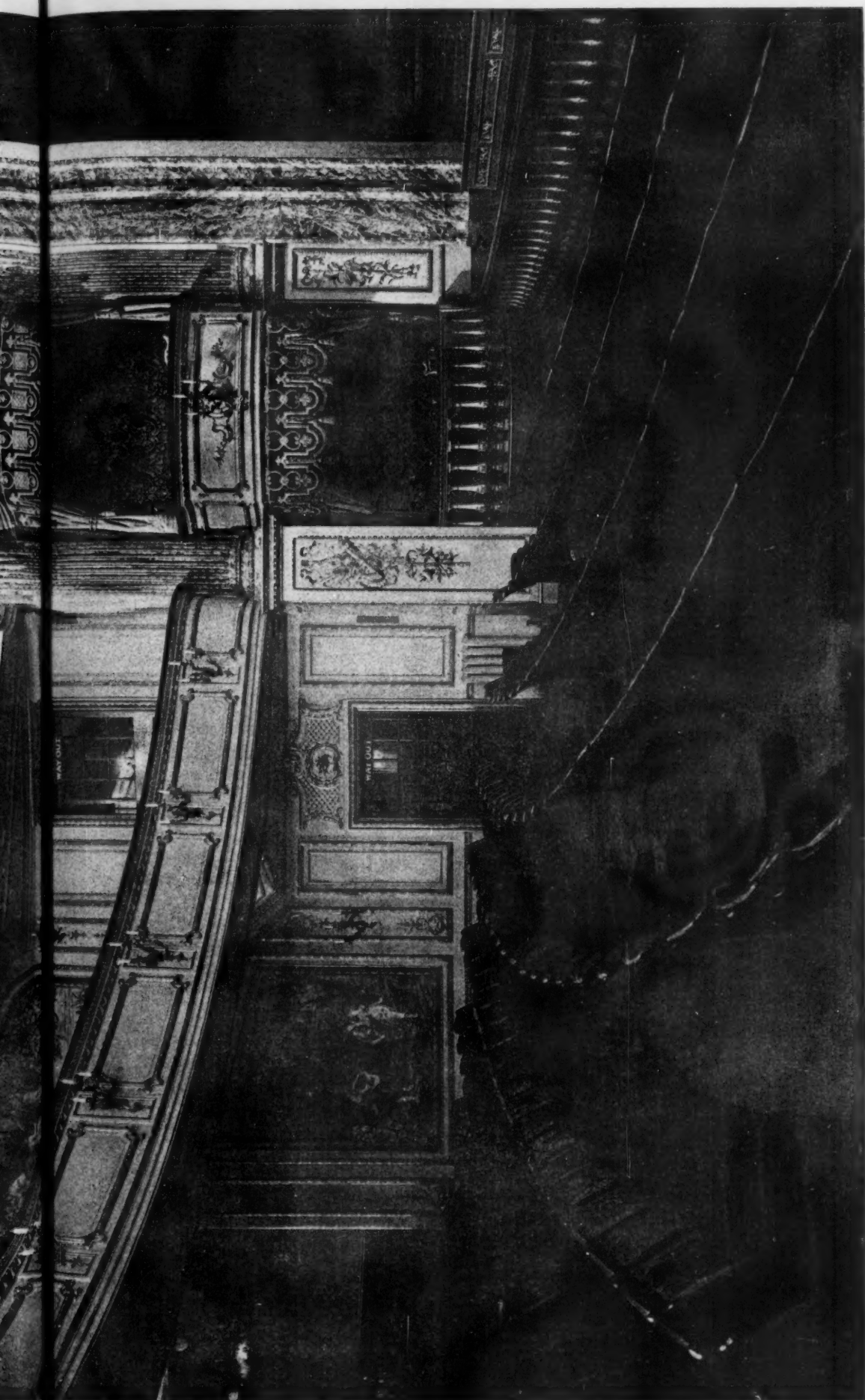
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196. PHOTO. SPRAQUE & CO. 4 & 5 EAST HANING STREET FETTER LANE, E.C.

THE FOYER: HER MAJESTY'S THEATRE, HAYMARKET.

The Late CHARLES J. PHIPPS, F.S.A., Architect.



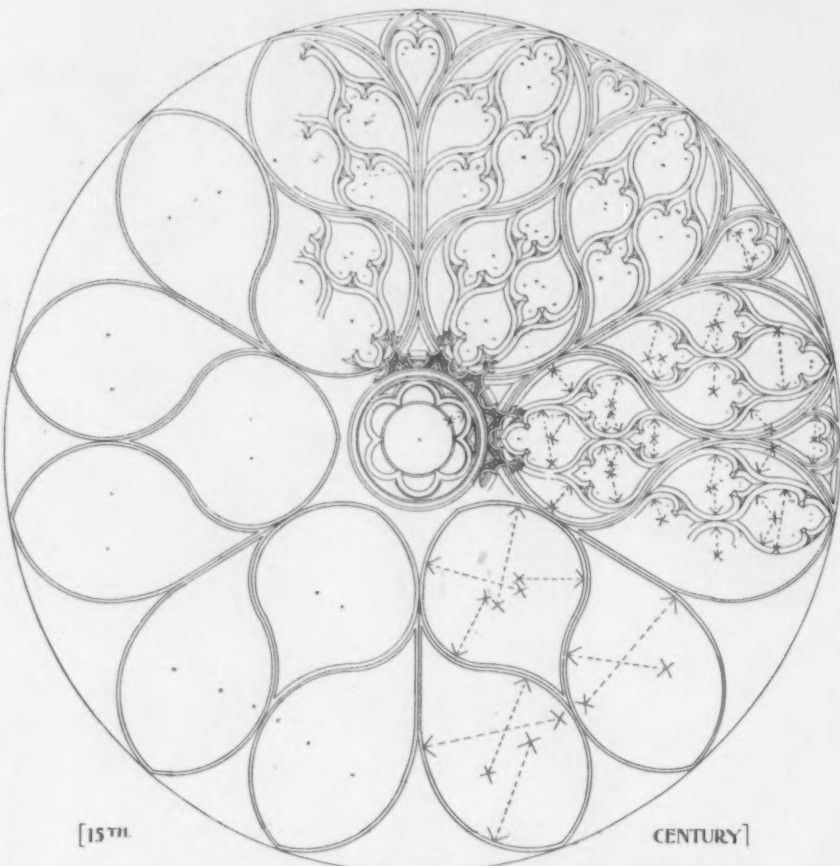


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INTERIOR: HER MAJESTY'S THEATRE, HAYMARKET.

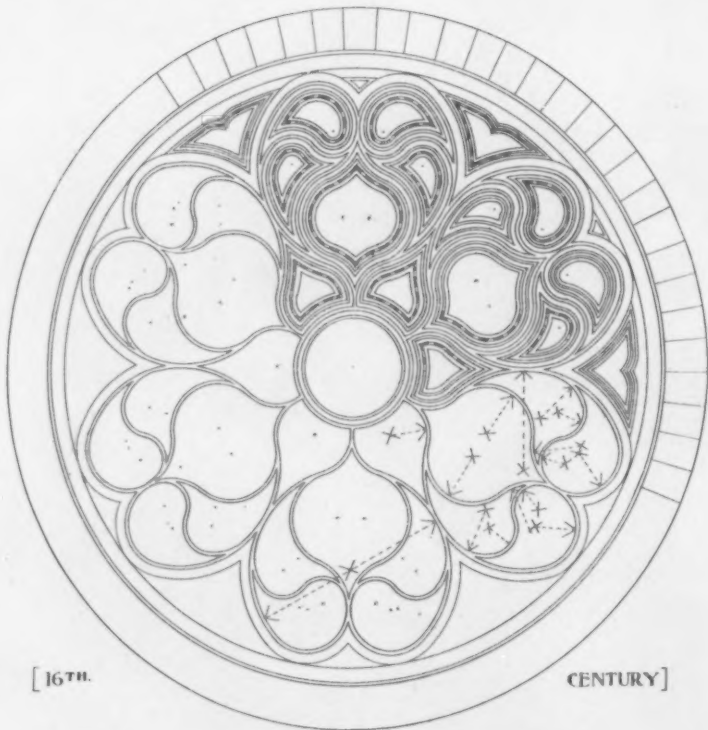
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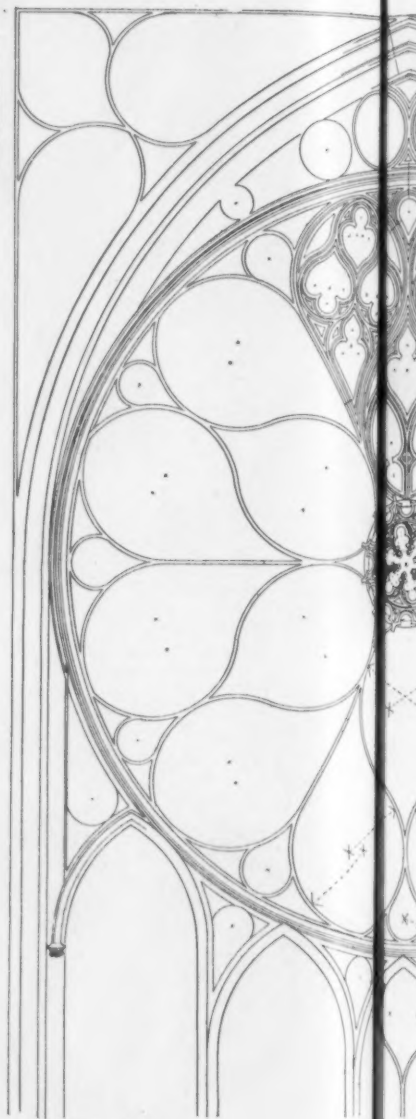
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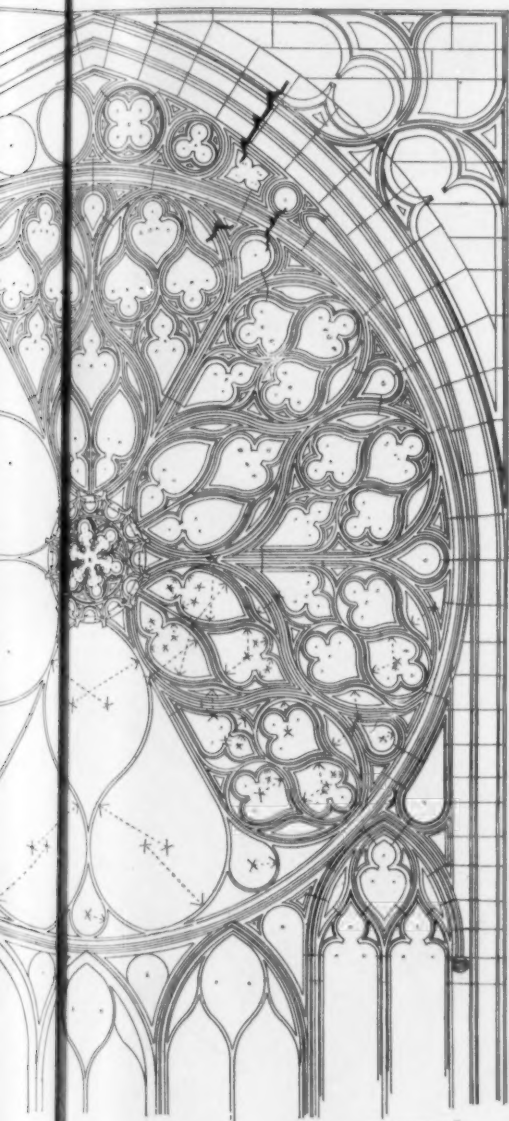


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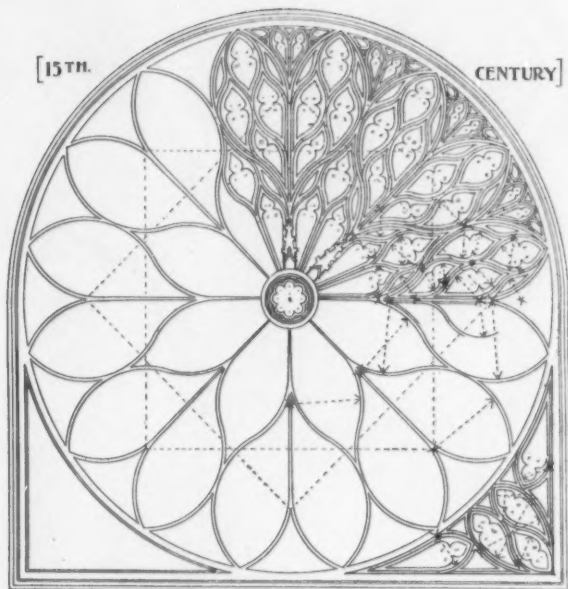
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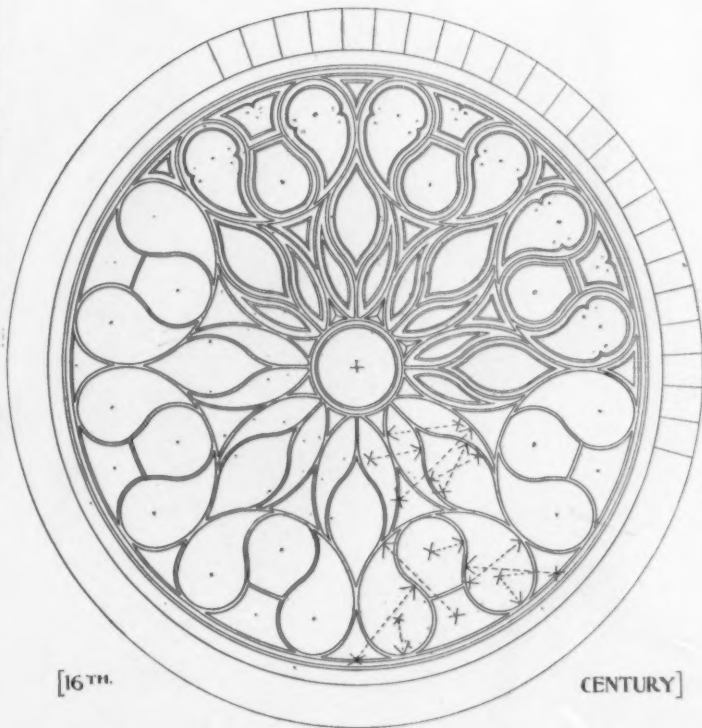
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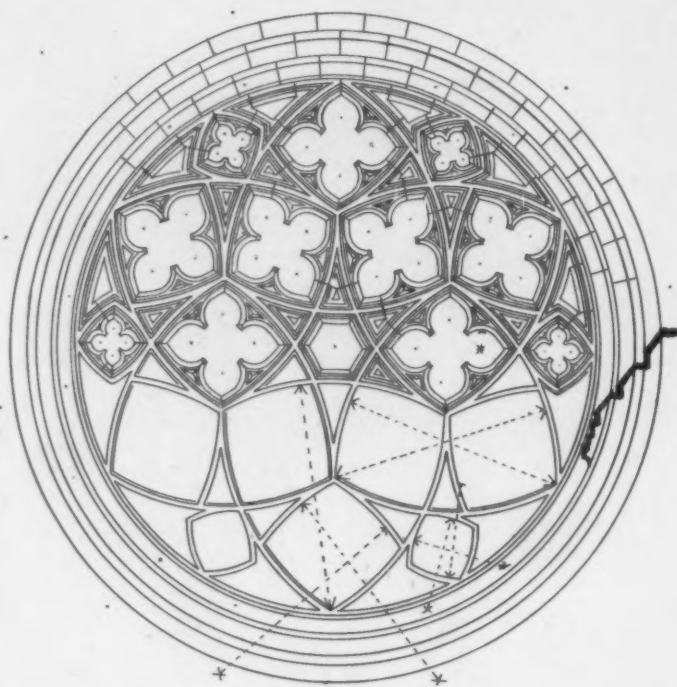


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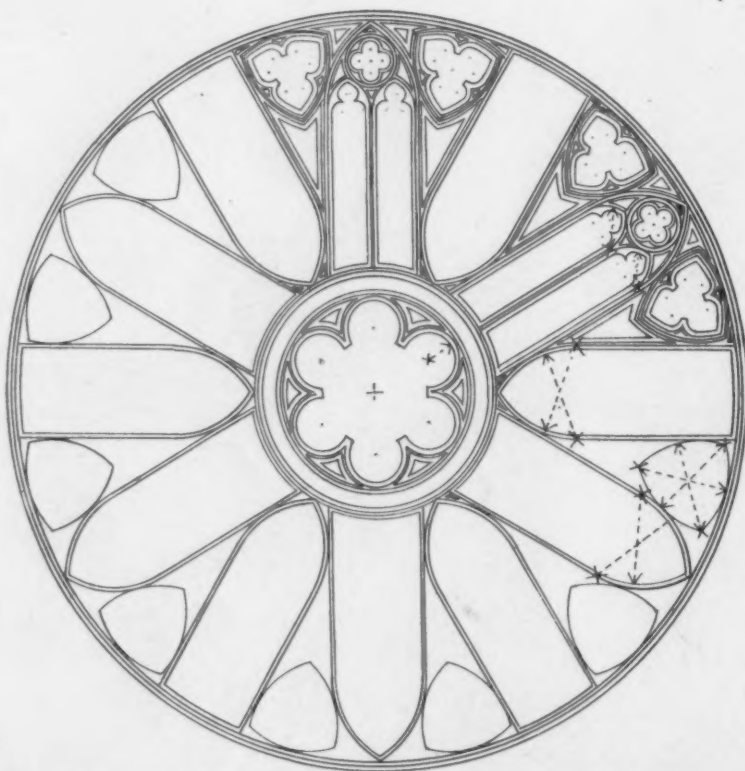


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[14TH CENT.]
• ST. PIERRE •



• SOUTH • TRANSEPT • ROUEN • CATHEDRAL •
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[13TH.]
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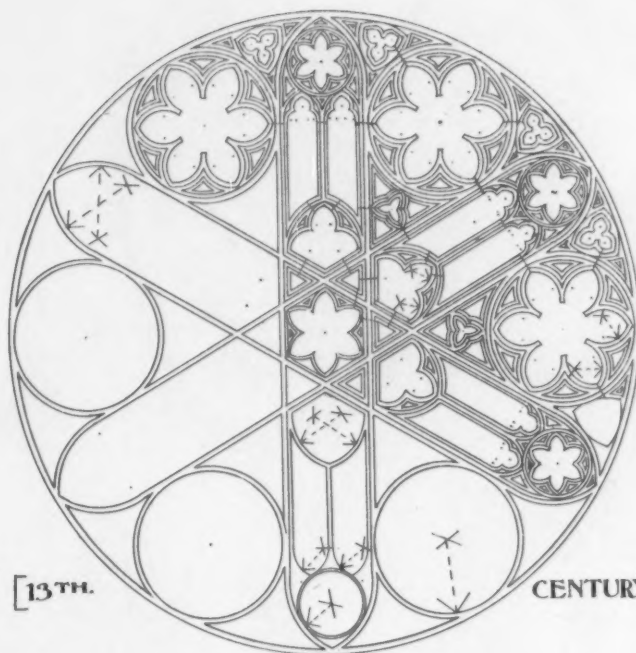


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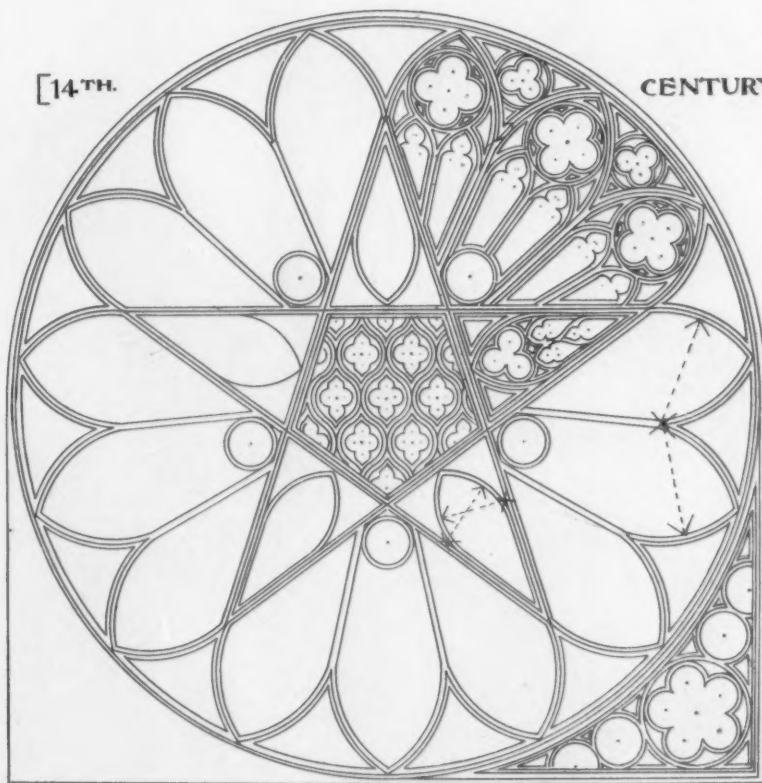
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[14TH. CENTURY]

• NORTH • TRANSEPT • ST. OUVEN • ROUEN • FRANCE •

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