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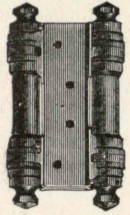
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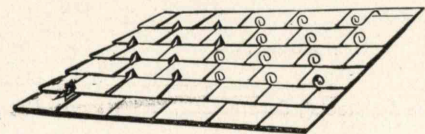
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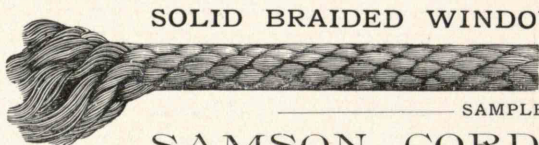
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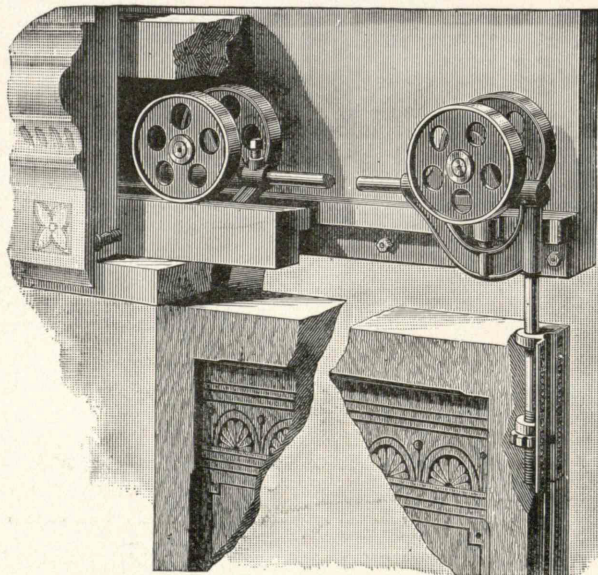
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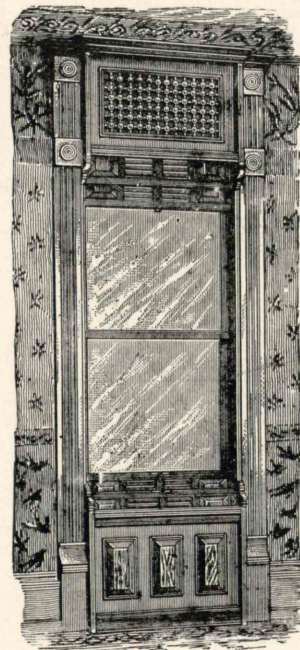
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For the benefit of those who are contented with a limited acquaintance with the subject, or who have acquired elsewhere the necessary mathematical and physical knowledge, a partial course in Architecture is arranged, occupying two years.

The professional work of both courses is under the immediate charge of Prof. Frank W. Chandler, who gives the lectures on Construction, Specifications, and Contracts, Materials, and Special Classes of Buildings; Assoc. Prof. Eugene Létang, the Instructor in Design; and Messrs. Eleazer B. Homer and Frank A. Moore, Assistants. Special instruction is given by Messrs. Ross Turner, in Water-Colors; C. Howard Walker, in Decoration; Charles E. Mills, in Drawing from the Life; and David A. Gregg, in Pen-and-Ink Sketching.

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# TECHNOLOGY ARCHITECTURAL REVIEW.

DEPARTMENT OF ARCHITECTURE,

**Massachusetts Institute of Technology.**

VOL. I.

BOSTON, FEBRUARY 15, 1888.

No. 4.

## TECHNOLOGY ARCHITECTURAL REVIEW.

PUBLICATION OF

*The Massachusetts Institute of Technology Architectural Society.*

HENRY D. BATES. THOMAS R. KIMBALL.  
EDITORS.

IT is but a very few years since such advantages as the Institute offers were first opened to students of architecture in this country. About thirty years ago, Mr. Hunt received pupils in his office. He taught them much as he himself had been taught at the *École des Beaux Arts*, in Paris, and several architects of distinction received with him much of their training. A few years later, Mr. Ware, one of his pupils, opened a similar office in Boston; and at the close of the war, when Mr. Van Brunt joined him in partnership, they had an atelier filled with students, whom they received for a two years' course of tuition.

Among these students was Frank W. Chandler, who has been recently appointed Professor of Architecture at the Institute of Technology. On leaving Messrs. Ware & Van Brunt, he passed two years at the *Atelier Daumet* of the *École des Beaux Arts*, and for the next two years was Professor Ware's assistant in the Architectural Department of the Institute. He organized the Free Drawing Schools for the City of Cambridge, and for the next three years was Assistant Supervising Architect at the United States Government Office in Washington. For the last fifteen years he has been actively engaged in the practice of the profession, in partnership with Mr. Edward C. Cabot in Boston.

The Institute is to be much congratulated that circumstances have made it possible for them to obtain the entire service of a man who has been trained so thoroughly and in a way that fits him so well for the position. The fact

that the instructors in the Institute have studied under the influence of the French *École des Beaux Arts* gives promise that the wise precedents of that School will, in some measure at least, be followed. We may hope that the pupils, instead of being occupied with the design of simple modern and utilitarian buildings (the every-day work of a modern office), will rather be led to concentrate their studies on proportion, scale, historical precedent, and those principles which underlie all design in every style. And in matter of construction they will doubtless be shown the general theories which govern building construction rather than the small details of house-building. It is training of this wide sort that makes instruction in the Parisian School so valuable. It is, moreover, an instruction almost unattainable to a young man once hurried and pressed by the office routine of tracing, copying, framing, figuring, and making details. All these matters he will become master of far better in an office where new exigencies arise daily, and necessity begets knowledge. But the wide view of his art and its general principles and history he can learn far better at a school and away from the bustle of active life.

Professor Chandler's sound sense and long practical experience will keep him from carrying such principles to a foolish or absorbing extent; but instruction of the kind described is the main excuse for the existence of an architectural school. It is, therefore, highly satisfactory that in the appointment of the new Professor we may see signs that the early promise of the school will go on to a bright fulfilment.

On the part of the members of the M. I. T. Architectural Society, the REVIEW extends to Professor Chandler a heartfelt welcome, and congratulates itself that a timely birth has given it the power to appreciate and the voice to welcome a change that holds out such promise for the future of this Department.

## DEPARTMENT OF ARCHITECTURE.

FEBRUARY 1, 1888.

## MONTHLY COMPETITION.

## FOURTH YEAR REGULARS AND SPECIALS.

*Programme: A THEATRE.*

THIS edifice, intended for the representation of operatic and dramatic works of the best character, is to be erected upon a rectangular plot of ground enclosed by three streets and a public square, upon which the building is to face. The structure will comprise two distinct parts, each having its special entrances: one, the auditorium and accessories; the other, the stage and accessories (administration).

The auditorium is to provide for about twenty-five hundred seats, easily accessible, proscenium boxes with private stairs and small drawing-rooms, two or more galleries, and room for an orchestra of from sixty to eighty musicians. It will be encircled by spacious corridors or lobbies at each floor, to be reached by principal and secondary stairs conveniently distributed. On the ground floor the plan must provide for large vestibules, porticos with open porches for carriages, ticket offices, café and restaurant, coat-rooms, lavatories, etc. In the second story will be a large *foyer*, or conversation room, ladies' rooms, smoking-room, and possibly musical and dramatic libraries.

The stage will be about eighty feet deep, and the opening in the curtain wall not less than fifty feet wide. In direct connection with the stage will be several green-rooms for male and female choruses, ballet, and musicians, a large hall for rehearsals, paint and carpenter shops, offices for managers and assistants, and lodgings for janitors; also, no less than twenty dressing-rooms.

The largest dimension of the structure must not exceed four hundred feet.

Required: a preliminary sketch, — plan and principal elevation on a scale of one sixty-fourth of an inch to the foot; finished drawings, — one plan and one section on a scale of one thirty-second of an inch to the foot; principal elevation on a scale of one sixteenth of an inch to the foot.

EUGENE LÉTANG.

## JUDGMENT.

First Mention . . . . .	FRANK A. MOORE.
Second Mention . . . . .	W. PROCTOR, JR.
Third Mention . . . . .	GEO. C. SHATTUCK.
Fourth Mention . . . . .	J. EDWARD FULLER, JR.

*Eight designs in Competition.*

## NOTES TAKEN FROM CRITICISM.

The programme fixed the site of this building as facing a square and bounded by streets; therefore a certain dominating richness and spaciousness should characterize the approach from the square, both in plan and elevation. A structure of such varying functions gains architectural interest in proportion as these functions are appropriately expressed in the architectural treatment. Thus the vast store and work rooms of the technical life of an opera-house require a simplicity which contrasts with the magnificence of the part where the public are to be lured and entertained. In the best architecture the controlling purposes of the plan find analogous expression in the elevations, and *vice versa*.

Coming to a closer consideration of the problem before us, there is nothing in this class of buildings of greater importance than ample provision for giving rapid exit without confusion to an audience seated in different and widely separated parts of the auditorium. For this purpose are needed, besides wide and direct communication on the several floors for each gallery, separate stairways, so that a crowded stream of people can pass to an exit without meeting counter-currents.

Nearly all the designs under examination stand well the test of these general principles and it is from more subtle points of criticism than space permits to explain that they are finally ranked.

The design to which the FIRST MENTION was awarded has a directness and expressive simplicity in the plan, — reflected in a large measure in the elevation, — which shows an unusually close adaptation of means to the end. Note how simply the working part of the building is indicated, how well lighted and ventilated by the straight corridors which traverse it from end to end! While the same controlling lines are carried through, the public's domain is at once duly accentuated on plan by lobbies at the angles of the corridors enclosing the auditorium. The great hall and vestibule in front are ample for all physical and æsthetic considerations. They clearly indicate the chief approach is from the square, and here all available space and richness are developed. Skillfully placed stairs serve each floor and gallery. It would perhaps have been wiser if the main flights to the *foyer* had been reversed, and started from the central opening, as in several of the other designs.

The exterior shows the same qualities as the plan, — a severe dignity born of conviction where emphasis is due, and courage in enriching those points. Three great arches are unhesitatingly made the dominating feature, and the massive wall surfaces add to, and receive a reflex value from these magnificent bays. The *porte-cochères* mark the unit of a scale judiciously preserved, with the effect of giving cumulative grandeur to the fine pyramidal mass. The same principle which successfully contrasted the voids and solids has given heightened value to the plain and ornamental surfaces, and the latter are very effective.

The exterior of the design to which SECOND MENTION was given calls for almost identical praise. The great bays are here replaced by a colonnade treated with equal decision. There is shown the same fine artistic sense of contrasts; and if the latter design gives the impression of greater refinement, it is partly because there is a still greater simplicity of subordinate masses. If the scale is not so carefully impressed nor the pyramidal effect so obviously attained, the latter design has a dignity of mass, animated by an elegance of lofty structural development, which is most refined and distinguished. It is in plan that this design is inferior; it is more confused, more complicated, with indecision as to relative value of parts. For instance, either the front hall or the staircase hall should frankly predominate. The latter, enlarged at the expense of the vestibule and hall preceding it, would give the required unity of effect to this part of the plan. A lateral façade would reveal the faults of the present arrangement. There is also one set of stairs too few. From the rear of the auditorium, back, the plan is excellent.

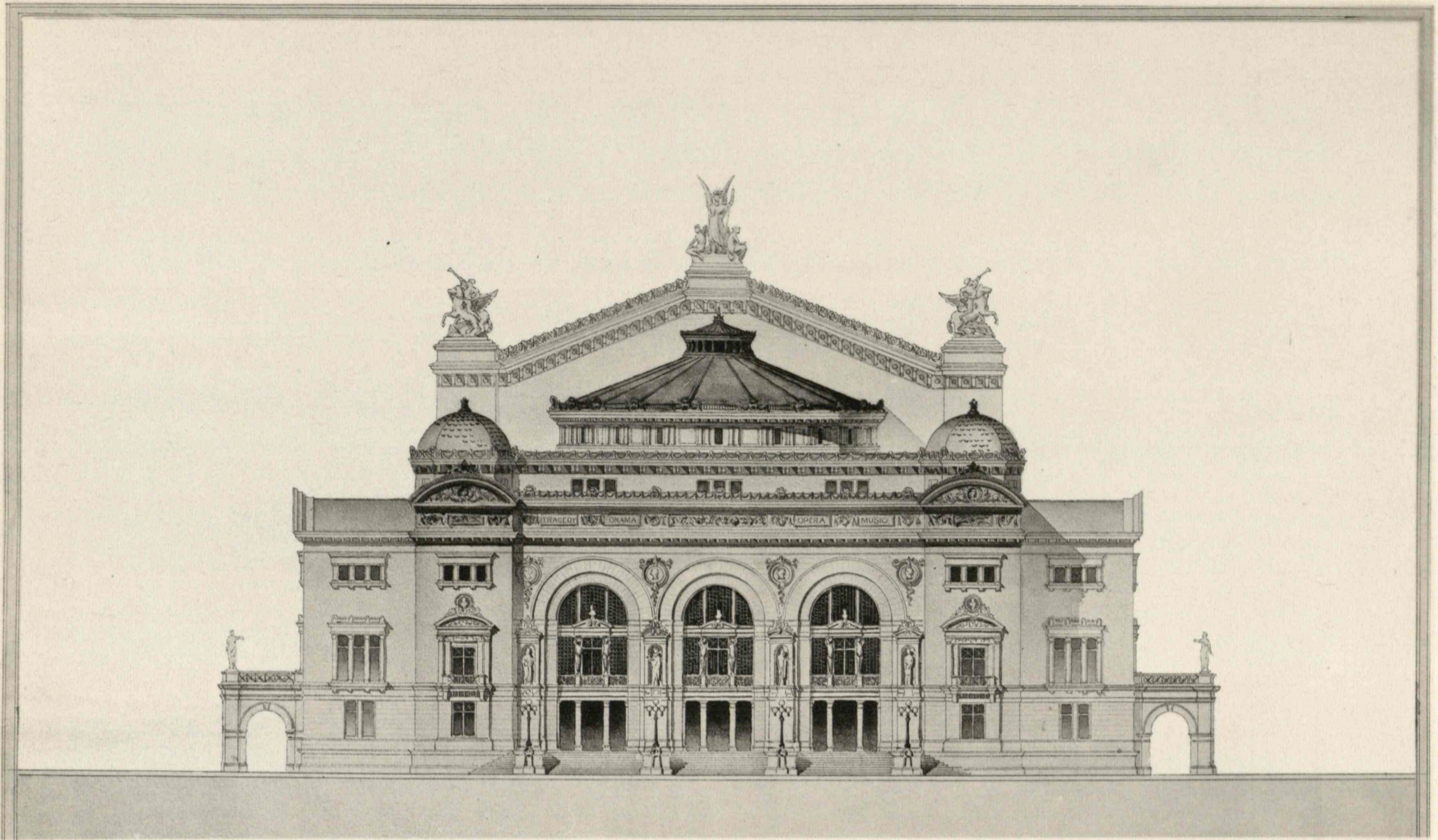
A comparison of the elevation of the THIRD MENTION with that of the Second illustrates the force of the preceding remarks. The former is a wholesome, honest bit of architecture; but this comparison reveals its lack of the higher æsthetic qualities. Its proportions fail to give an harmonious mass, nor does its severity anywhere find a proper foil by contrasting ornament. The pavilions which terminate the loggia are too nearly of the same width and treatment as the walls flanking them, while the pediment of the proscenium is too prominent not to be made to dominate the pile more vigorously. But the plan is superior to the preceding one, and reverts nearer to the simplicity of No. 1. Though lacking the clear emphasis of the latter, it is admirable.

In the FOURTH MENTION there is the simplest plan of all; but the limit of simplicity has been passed, as will be seen by a comparison with No. 1, from which it differs very little. It will be observed that it is the omission of certain features characteristic of the latter which constitute its inferiority. Lobbies at the angles of the auditorium are something more than accentuations on the plan to please the sight, — they represent a physical advantage in relieving the crush through the corridors at points where the circulation is threatened. The arrivals by carriage have, in No. 4, all to pass through or across a narrow corridor before reaching the main hall or staircase. The exterior is well grouped. The prevailing severity of the architecture develops with great, but not violent, effect into a florid magnificence of sculpture on the front toward the square. The way this efflorescence of sculpture is massed and harmonized with the plain walls about it deserves the highest praise. The *porte-cochères* are, however, treated with a contempt more fitting a stable than the portal by which wealth and fashion are to enter. This design has the misfortune of being inferior — though but by a little — in all respects to the FIRST MENTION. It has not been placed next it because it seemed fair to rank higher schemes which most successfully presented a different order of ideas.

More plans and sections of all the designs were really needed to fairly and conclusively differentiate the qualities of designs so nearly approaching each other in excellence.

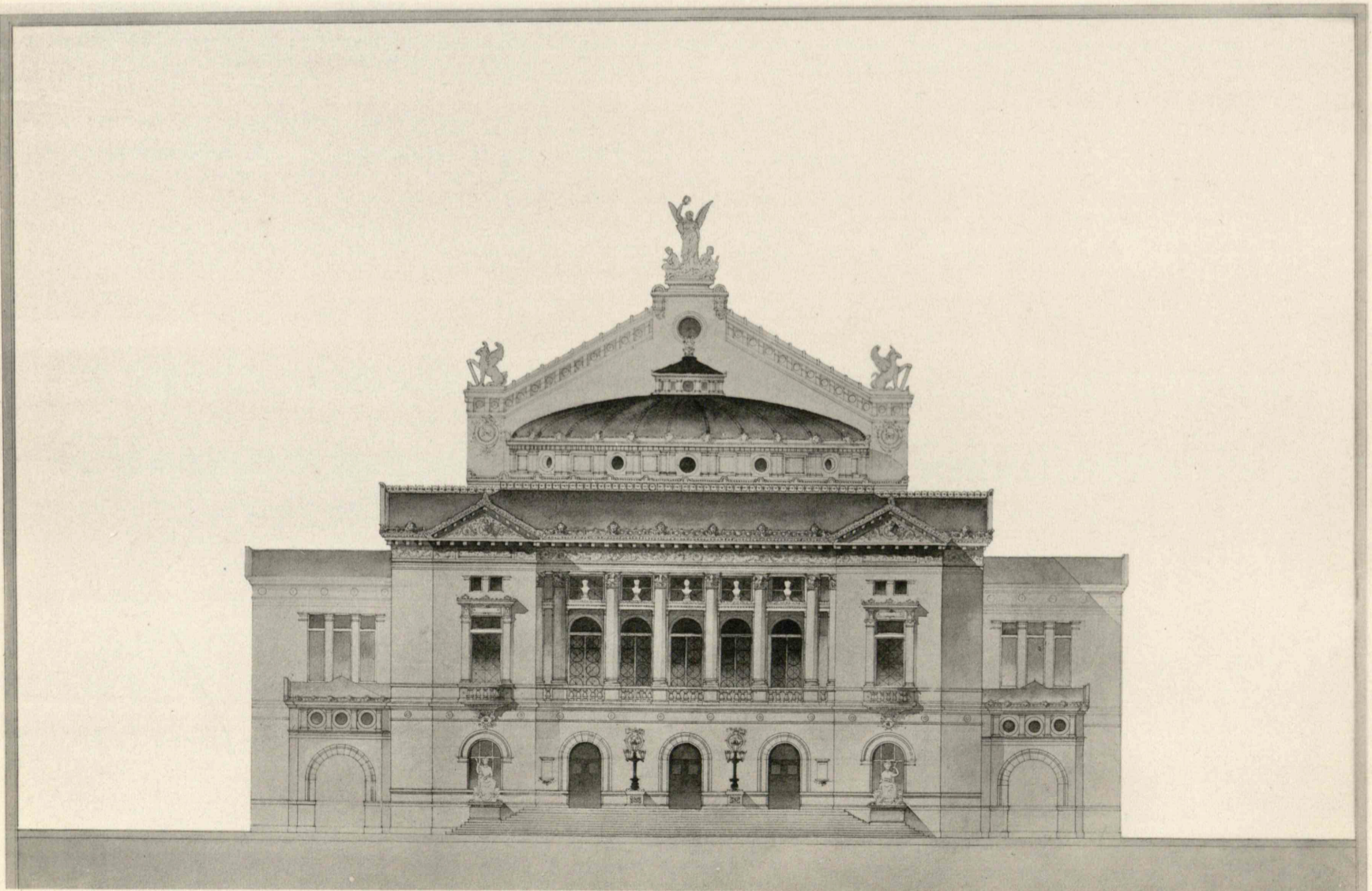
ARTHUR ROTCH, *Critic.*





FIRST MENTION.

FRANK A. MOORE.



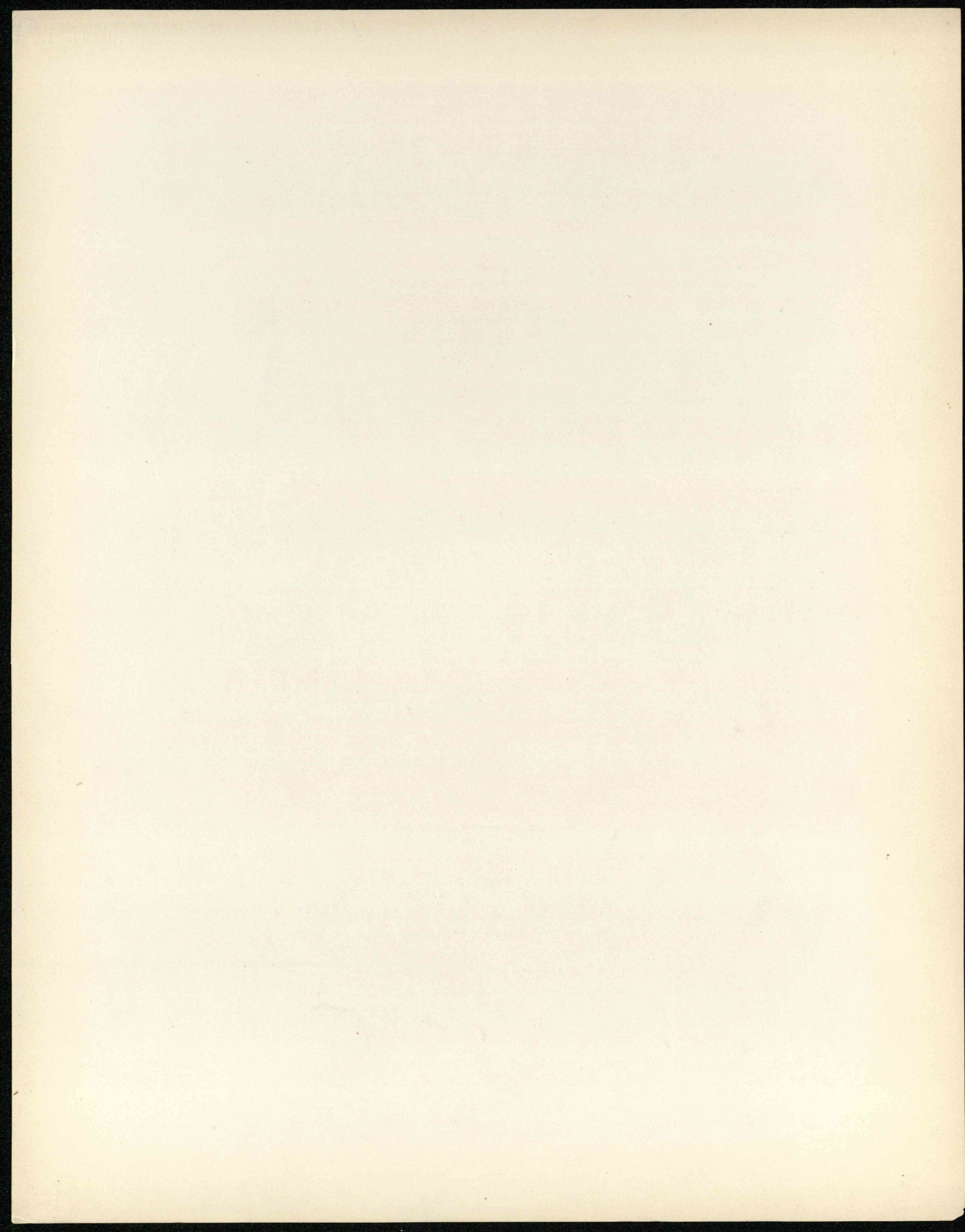
SECOND MENTION.

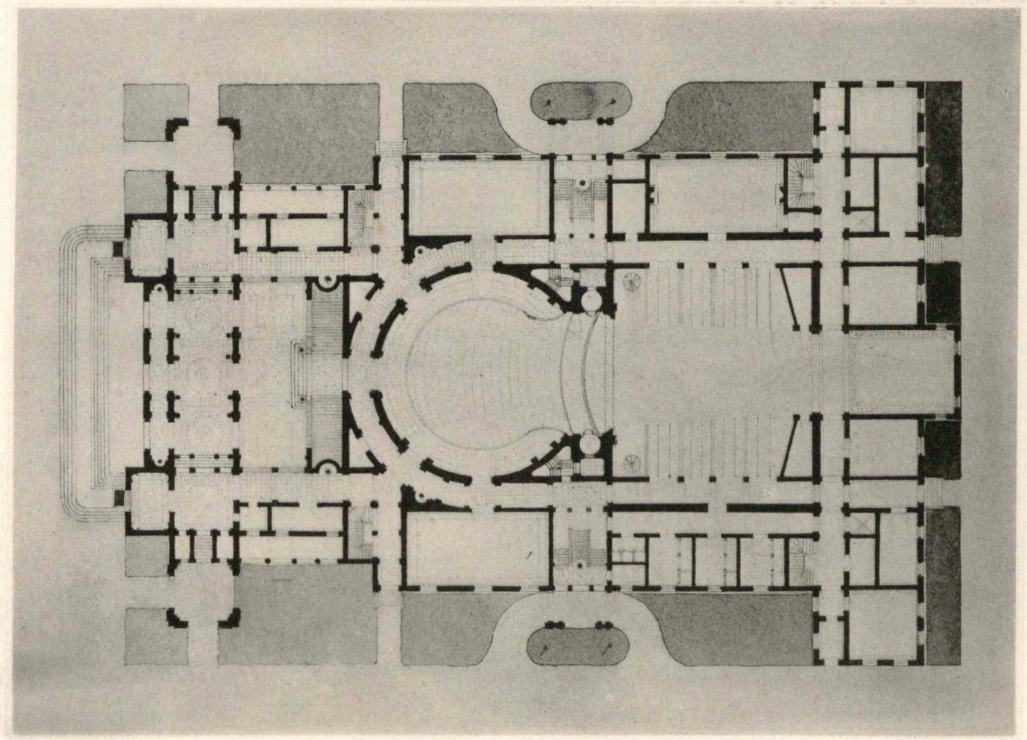
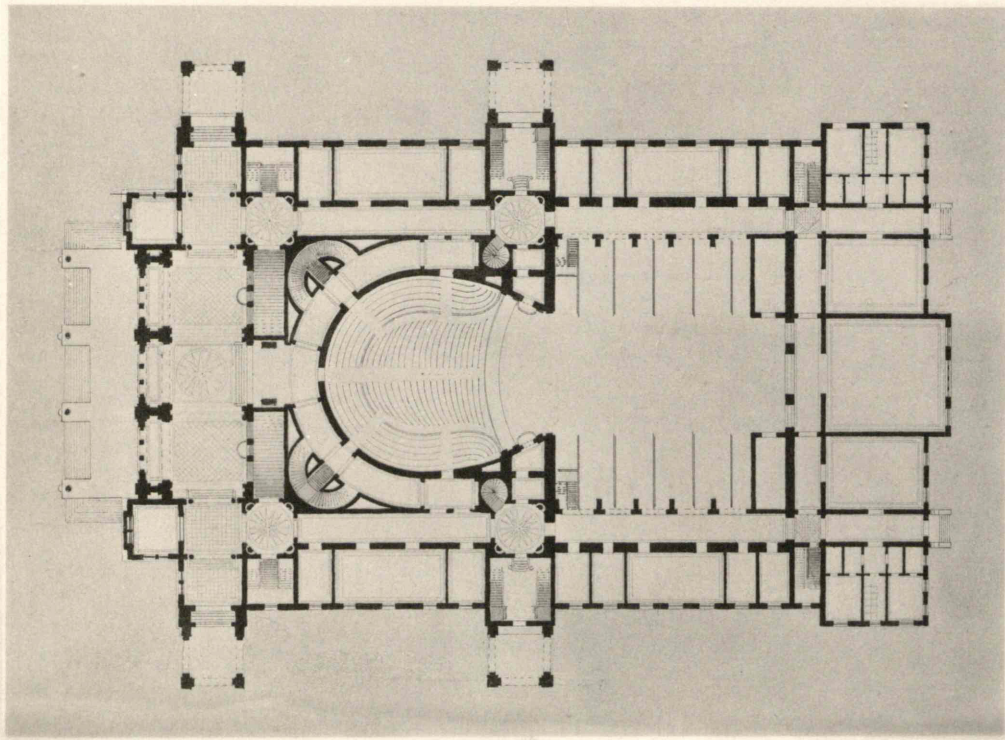
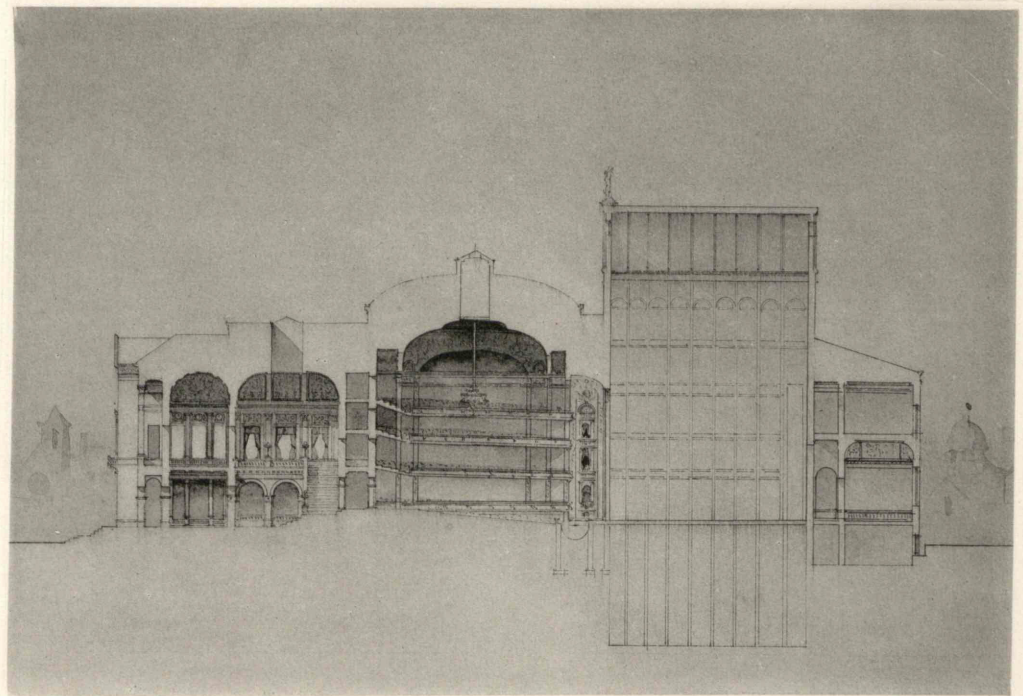
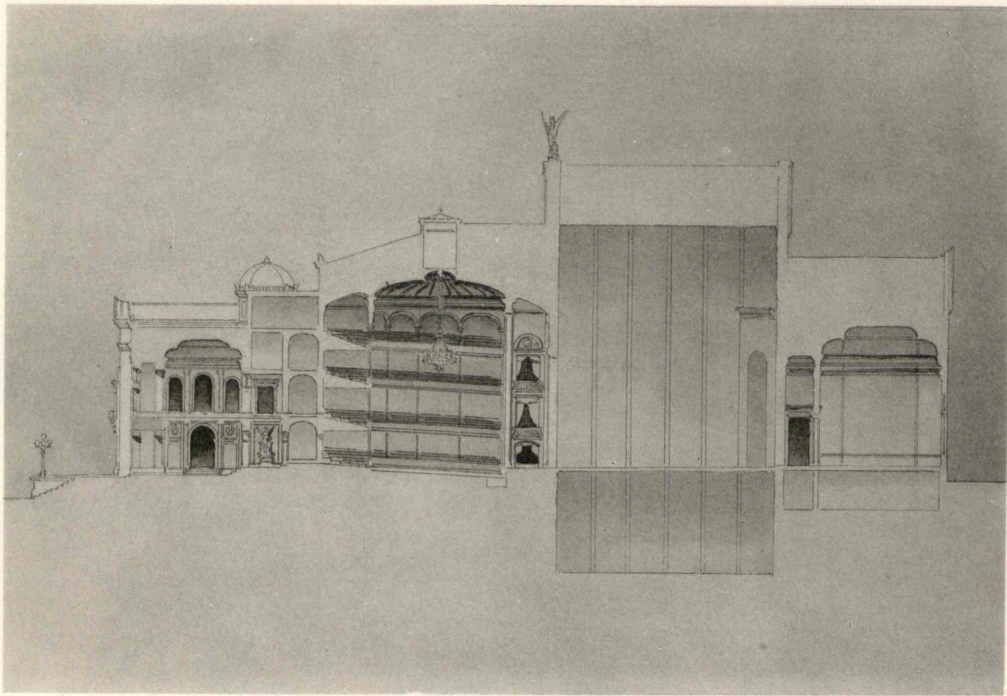
W. PROCTOR, JR.

AN OPERA HOUSE.

MONTHLY COMPETITION.

FOURTH YEAR.





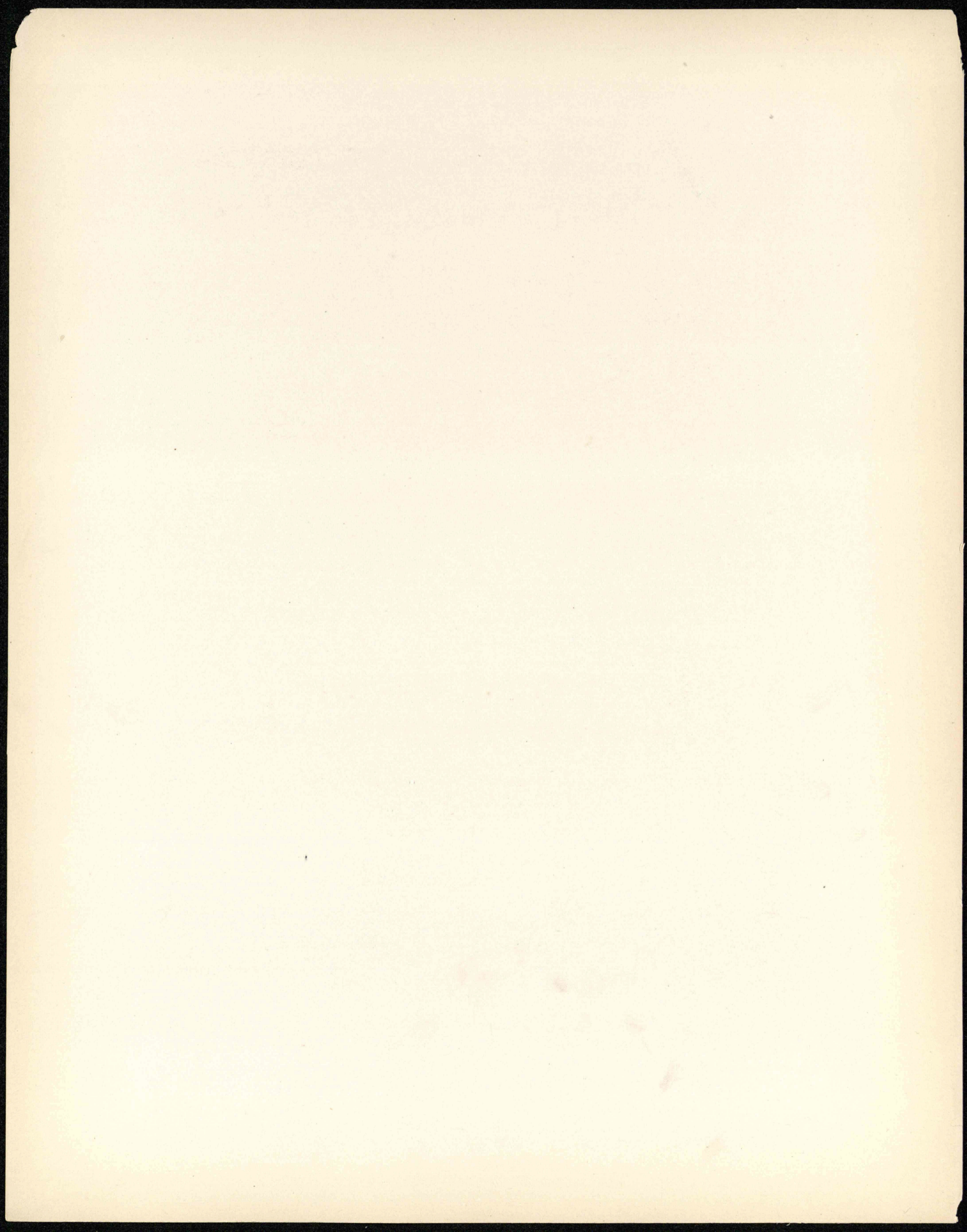
FIRST MENTION.

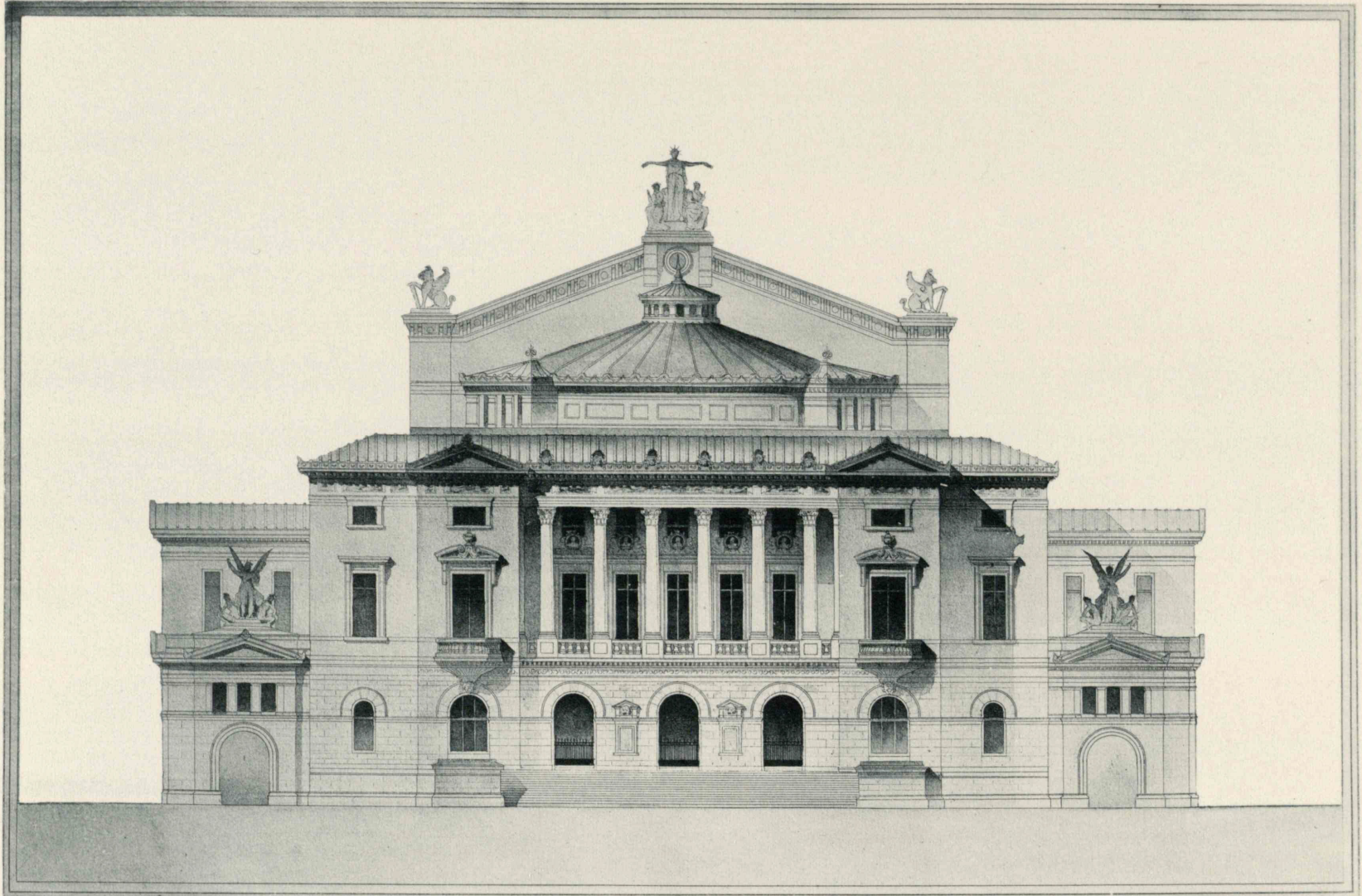
SECOND MENTION.

AN OPERA HOUSE.

MONTHLY COMPETITION.

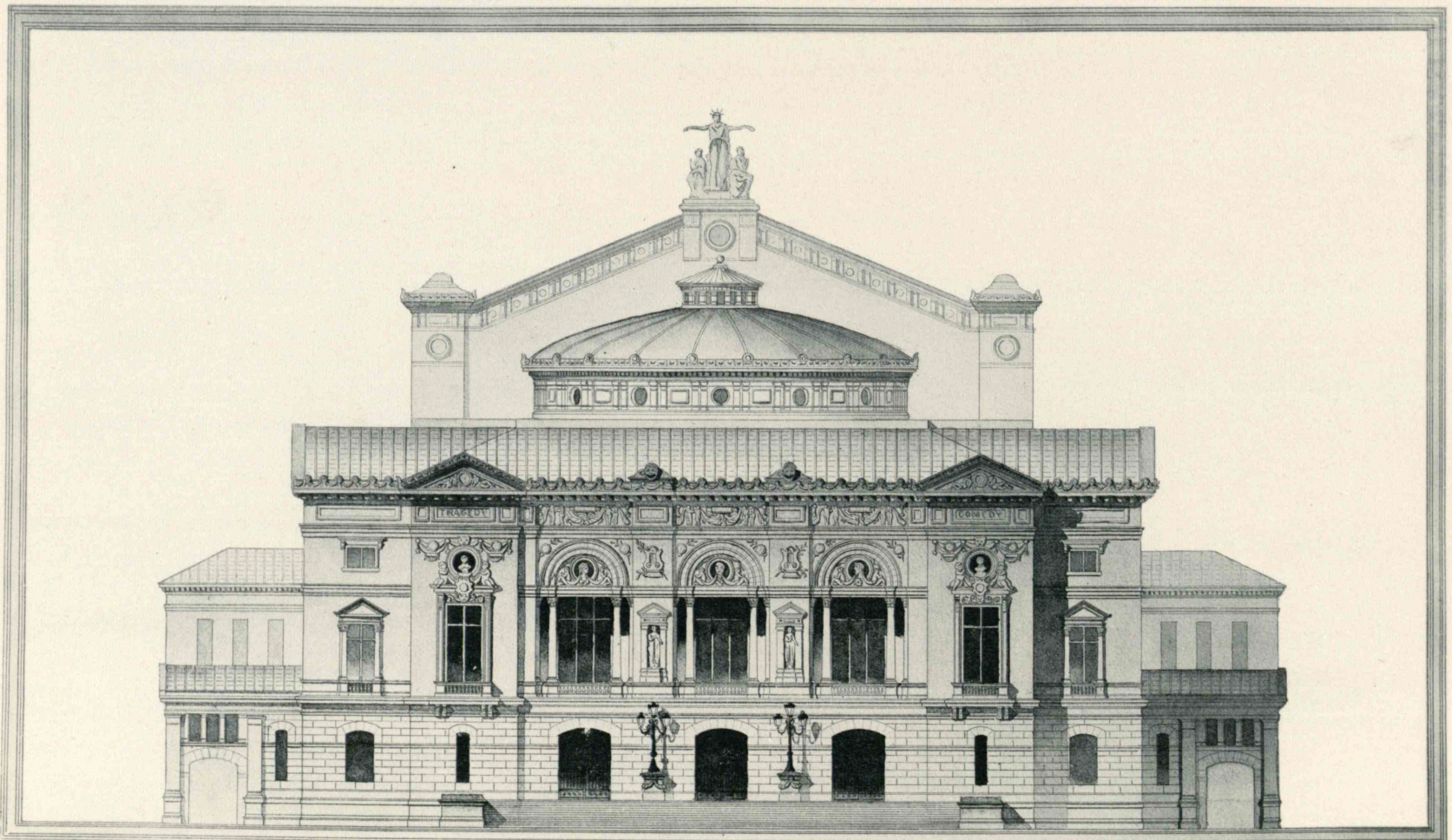
FOURTH YEAR.





THIRD MENTION.

GEO. C. SHATTUCK.



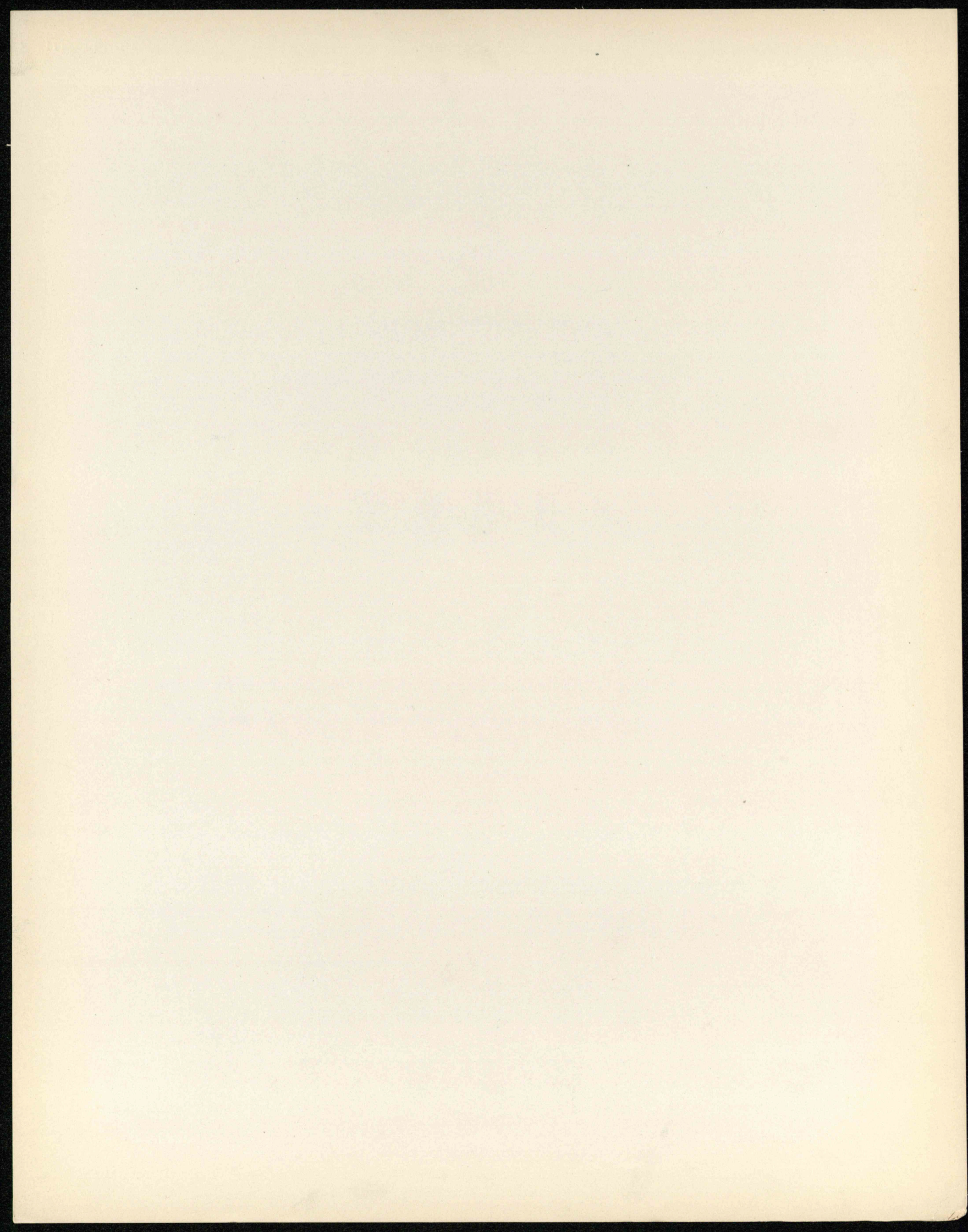
FOURTH MENTION.

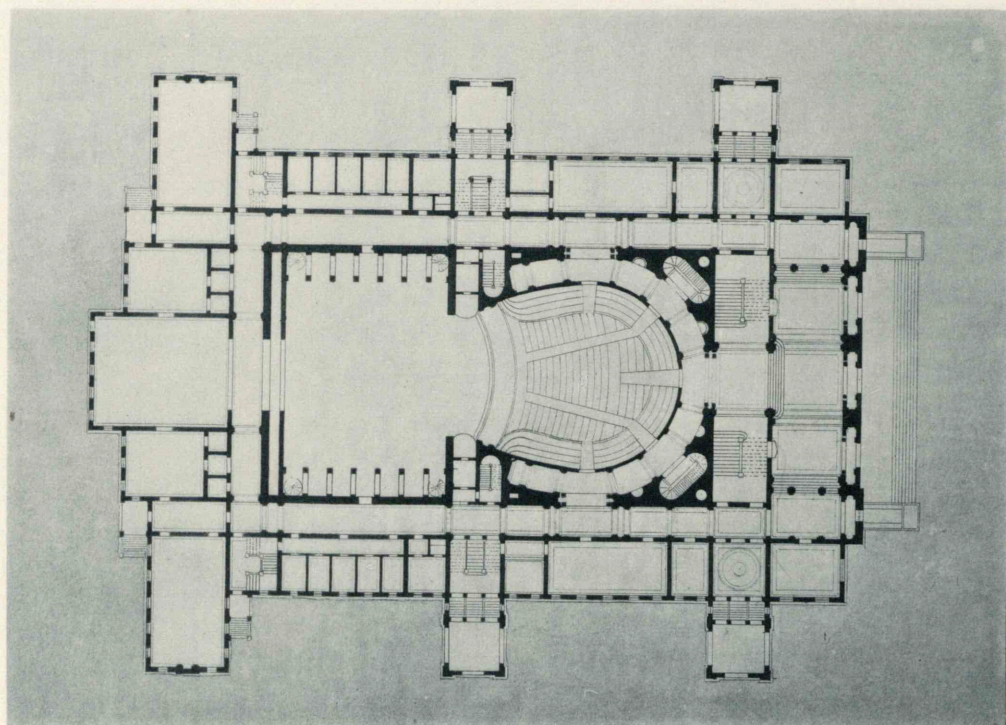
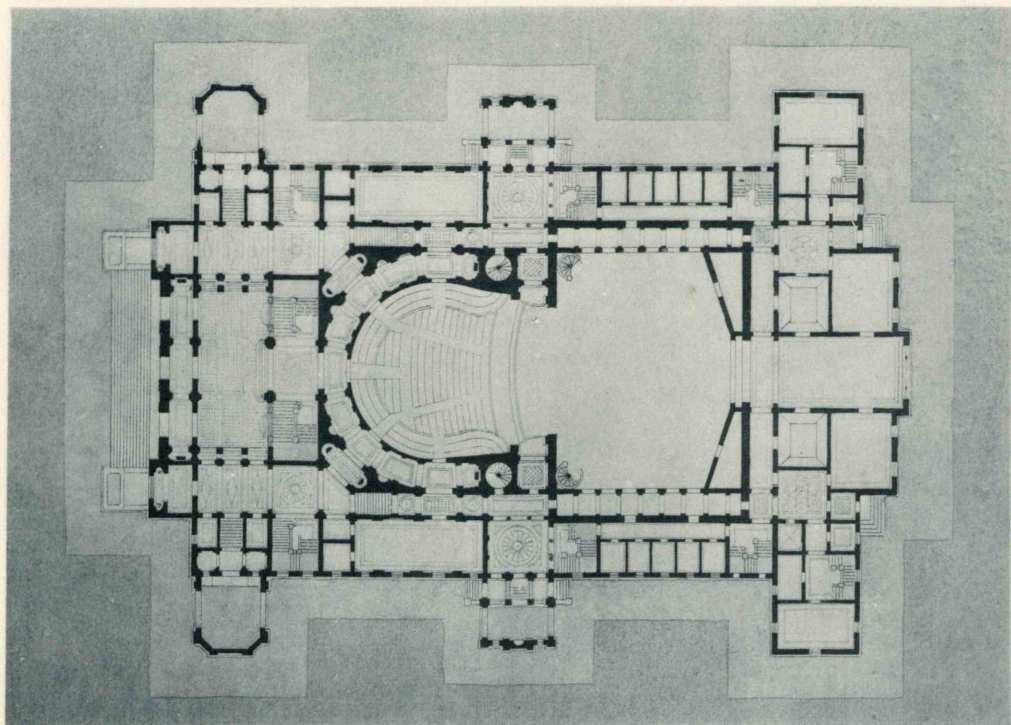
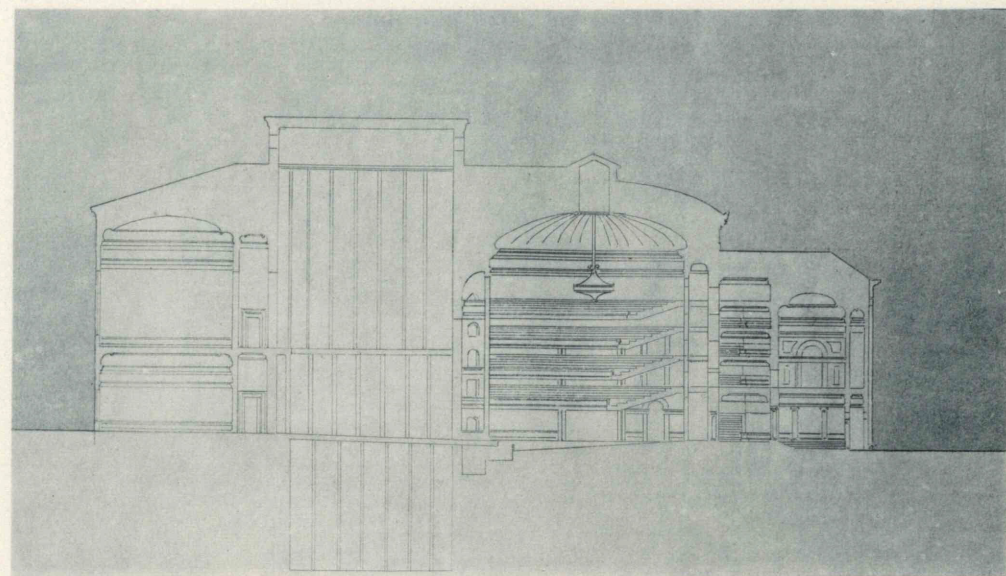
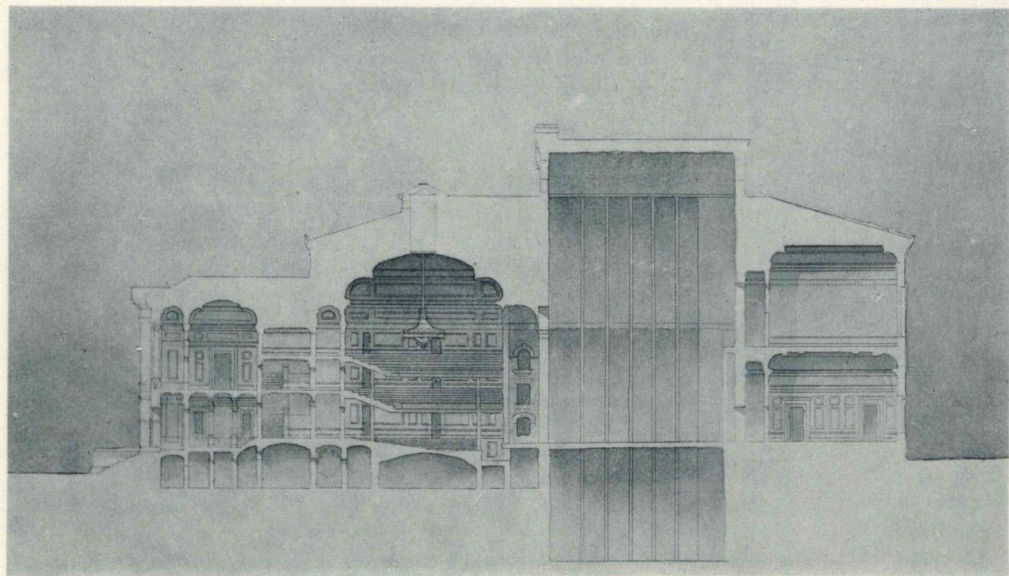
J. E. FULLER, JR.

AN OPERA HOUSE.

MONTHLY COMPETITION.

FOURTH YEAR.





THIRD MENTION.

FOURTH MENTION.

AN OPERA HOUSE.

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