



L. S. GRAVES & SON,
 Passenger and Freight Elevators,
 Noiseless, Safe, and Durable.
 MAIN OFFICE AND WORKS: ROCHESTER, N. Y.
 NEW ENGLAND OFFICE: 113 DEVONSHIRE ST., BOSTON.
 E. SCOTT MATHEWS, *Manager.*

OTIS BROTHERS & CO.,
 36 and 38 Park Row, New York, U. S. A.,
 STANDARD PASSENGER AND FREIGHT ELEVATORS.
 HOTEL ELEVATORS A SPECIALTY.
 Branches at Boston, Philadelphia, Pittsburgh, Chicago, Minneapolis,
 St. Louis, New Orleans, San Francisco, Los Angeles, U. S. A. Also
 Sydney, N. S. W., Australia, and the American Elevator Co., London
 and Paris.

The Architects', Contractors', and Material Dealers'
Directory
 OF BOSTON, CAMBRIDGE, CHELSEA, AND BROOKLINE.
Very complete and accurate.
 Every representative house in the trades which the Directory represents
 should have a copy at hand. Published July 1st of each year.
DAVID & CO., PUBLISHERS,
 19 Herald Building, 257 Washington Street, Boston.

WIRE LATH.

See advertisement on page iii.

REDDING, BAIRD, & CO.,
 83 Franklin Street,
 BOSTON, MASS.
 ARTISTIC, DOMESTIC, AND ECCLESIASTICAL
 STAINED GLASS.

THE NORTHWESTERN TERRA-COTTA CO.,
 Manufacturers of Architectural Terra-Cotta
 FOR EXTERIOR AND INTERIOR DECORATIONS,
 FROM SPECIAL DESIGNS IN ALL COLORS.
 MAIN WORKS AND OFFICE: BRANCH WORKS:
 Clybourn and Wrightwood Aves. Cor. 15th and Laffin Streets.
 BRANCH OFFICE:
 Room 20, McCormick Block, Chicago.

Dixon's American Artists' Pencils.
 Graphite
 10 Degrees of Hardness.
 EQUAL TO THE FINEST IMPORTED, AND COST LESS.
 If your stationer does not keep them, mention THE REVIEW, and send
 16 cents in stamps to the
Joseph Dixon Crucible Co., of Jersey City, N. J.,
 for samples worth double the money.

NICHOLS, BELLAMY, & CO.
 BUILDERS' HARDWARE.
 AGENTS FOR { NILES'S PATENT MORTISE LOCK.
 THAXTER'S PATENT ELECTRIC LOCK.
 CANNON'S PATENT DUMB WAITER.
 189 DEVONSHIRE AND 52 ARCH STREETS, BOSTON.
 UP-TOWN STORE, 669 WASHINGTON STREET.

Established 1848.

L. HABERSTROH & SON,
 Painters, Designers, and Decorators,
 9 Park Street, corner of Beacon, Boston.
 ALBERT HABERSTROH.

MCCULLY & MILES,
 Stained Glass.
 14 MONROE STREET, CHICAGO.

THE FOX & WHITMORE CO.,
 Painters, Decorators, and Furnishers,
 240 MAIN STREET, HARTFORD, CONN.
 The complete Decoration and Furnishing of the Better
 Class of Private Residences a Specialty.

BELCHER MOSAIC GLASS CO.,
 125 FIFTH AVENUE, NEW YORK CITY.
 SOLE MAKERS OF ELIHU VEDDER'S GLASS RING
 STRUCTURES FOR TRANSOMS, SCREENS, AND
 INTERIOR DECORATION, ALSO
 BELCHER MOSAIC STAINED GLASS,
 AND ALL GRADES OF LEADED WORK.

SUPERIOR TO ALL OTHERS.
THE "GIANT" METAL SASH CHAINS.
 Over nine years in successful use.
 Manufactured only by the Smith & Egge Manufacturing Co.,
 BRIDGEPORT, CONN.,
 Who absolutely control the Automatic Machinery making them. They
 also manufacture by the same machinery Red Metal and Steel Sash
 Chains. Both excellent chains and lower in price.

GRANVILLE MOSAIC FLOORS.
 O. S. DICKINSON, Granville, Mass.
 Test floors laid in 1880. Put on the market in 1884. Shipments in
 1887 two and one half times those of 1886, one floor often selling
 another.
 Always glad to refer to those who have longest had in use.
 SEE PAGE II.

HYDRAULIC PRESS BRICK CO.,
 304 North Eighth Street,
 ST. LOUIS.
 See card on inside page, number iv.

ESTABLISHED 1810.
N. & G. TAYLOR CO., PHILADELPHIA,
 "OLD STYLE" BRAND }
 Extra heavy leaded. } IMPORTERS OF
 "COOKLEY" BRAND } GUARANTEED
 K } ROOFING TIN.
 Extra Fine.
 Architects should specify these brands, as every perfect sheet is stamped
 with the thickness and name of the brand of tin. Deception is impossible.

ARCHITECTURAL DRAWINGS

Mounted in the best manner, and at reasonable prices.
 FRAMES SUITABLE FOR ARCHITECTS' USE A SPECIALTY.
WILLIAMS & EVERETT,
 79 BOYLSTON STREET BOSTON.

PIANOS. MCPHAIL & CO. PIANOS.
 Manufacturers.
Imperial Upright Pianos.
 HIGHEST GRADE as to STYLE, TONE, and DURABILITY.
 630 WASHINGTON STREET, BOSTON.

Architectural Photographs.
 We publish a line of 8 x 10 photos of leading Public Buildings,
 City Dwellings, Country Houses, Fine Interiors, and Foreign Detail.
 SUPPLEMENTARY CATALOGUE, just issued, free on application.
SOLE PHOTOGRAPH CO.,
 338 Washington Street, Boston.

* MODELS * AND * STATUARY. *
 Over 1,500 Designs for Design and Ornament.
C. HENNECKE & CO.,
 CHICAGO: 207 Wabash Avenue.
 MILWAUKEE, WIS.: 79-83 Buffalo Street.

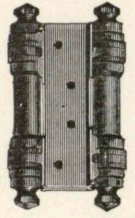
THE MAGEE FURNACE CO.,
 32 to 38 Union Street, Boston.
Manufacturers of Magee's Boston Heater,
 AND OTHER FURNACES.
 Also a full line of Cooking Apparatus.
 Estimates furnished for heating. Send for special circulars.

PERTH AMBOY TERRA-COTTA CO.,
 TELEPHONE BUILDING,
 16 to 20 Courtlandt Street, New York,
 Manufacturers of
ARCHITECTURAL TERRA-COTTA,
 BUFF AND COLORED BRICK, FIRE BRICK.

E. VAN NOORDEN & CO.,
 383 Harrison Avenue, Boston.
 METAL SKYLIGHTS, VENTILATORS, CORNICES,
 WINDOW CAPS, FINIALS, AND ROOFING,
 PLAIN AND ORNAMENTAL.
COPPER WORK FOR BUILDINGS.

WARREN'S
NATURAL ASPHALT ROOFING.
 "Anchor Brand."
 Not injuriously affected by atmospheric agencies; will not waste and
 become brittle by evaporation.
WARREN CHEMICAL & MANUFACTURING CO.
 114 JOHN STREET, NEW YORK;
 12 PEARL STREET, BOSTON.

GEM SPRING HINGES.



SINGLE AND DOUBLE ACTING.
THE BEST AND CHEAPEST.
SEND FOR CATALOGUE.

MANUFACTURED BY

VAN WAGONER AND WILLIAMS CO.,
82 BEEKMAN STREET, NEW YORK.

Below are some good points we feel justified in claiming in an eminent degree to possess.



RANVILLE MOSAIC FLOORS
Are Winning Warmest Praise.
If interested, write for estimate send plan to
O. S. DICKINSON, GRANVILLE, MASS.

We think our patrons will sustain these claims.
Respectfully,

O. S. DICKINSON,
Granville, Mass.

Secure fastening.
Contraction and Expansion provided for.
Simplicity of laying.
Perfection of finish at Factory.
Wide range and beauty in design.
Adaptation to old floors or new houses.
Moderate cost.



OUR STAINS CONTAIN NO WATER OR KEROSENE.



BLACKBOARDS.

The CRYSTAL BLACKBOARD has no equal for quality and durability. Blackboards of Slate, Wood, Cloth, and Crystal always in Stock, or made to order of any desired Size.

Orders for new work or repairs will receive prompt attention at reasonable prices.

J. L. HAMMETT, 24 Cornhill, Boston.

CORRUGATED

IRON

ROOFING

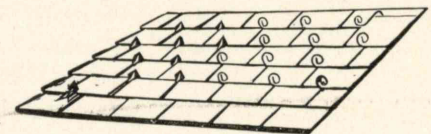
SIDING, CEILING,
ARCHES AND LATH,
CINCINNATI
CORRUGATING CO.
CINCINNATI, O.
SEND FOR ILLUSTRATED CATALOGUE.

STANDING SEAM

FROST & ADAMS.
IMPORTERS & DEALERS
IN
Artists' Materials
of Every Description
MATHEMATICAL INSTRUMENTS,
ETCHING MATERIALS, TAPESTRY
CANVAS, COLORS ETC.,
37 Cornhill
BOSTON.

SPECIFICATIONS SHOULD INCLUDE

* Folsom's Patent Roof Snow-Guards.*



HALF A MILLION IN USE.

Address

JOHN H. HILLER, 1408 Tremont Street, Boston.

Plumbing.

T. H. DUGGAN,

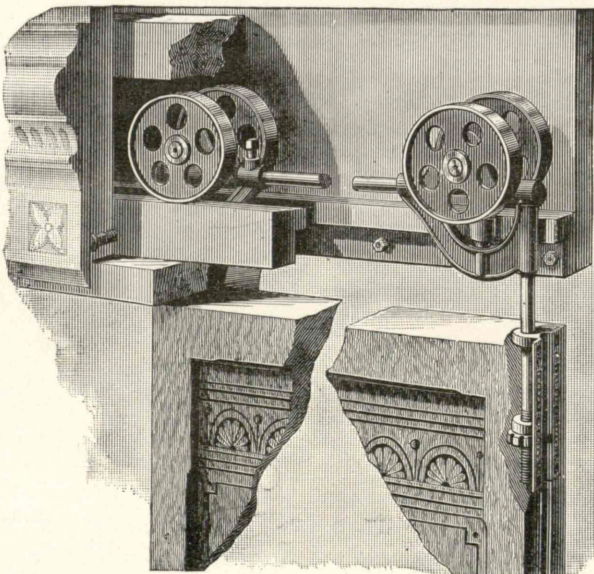
Practical Plumber and Sanitary Engineer,

141 Dartmouth Street, near Bridge,
BOSTON,

Carries a large stock of fine plumbing materials and the leading sanitary specialties. The drainage system of buildings tested by hydraulic or peppermint test. Irrigation drainage for country houses. Cast-iron drains and ventilating pipes readily applied to old buildings. First-class workmanship guaranteed. Orders from all parts, and jobbing promptly attended to.

TELEPHONE 4165.

SOLID BRAIDED WINDOW SASH CORD.
The most durable and economical. Should be named in Specifications.
SAMPLES FREE
SAMSON CORDAGE WORKS,
164 High Street, Boston, Mass.



WARNER SLIDING DOOR HANGER

HAS OUTLIVED IMITATIONS. IT RETAINS THE LEAD BY MEANS OF ITS CORRECT PRINCIPLES AND PERFECT WORKING.

INDORSED BY 1,200 ARCHITECTS.

S. S. BEMAN, Architect.
Pullman Building.

Chicago, Ill., May 27, 1887.

Messrs. E. C. STEARNS & Co.:-

Gentlemen,—I believe the Warner Door Hanger to be the best in use, and superior to any of the anti-friction roller-bar Hangers that it has been my misfortune to use.

Yours truly,
S. S. BEMAN.

No Flanged Wheels, no Cutting of Carpets, no Track on the Floor, never get out of order, always in line.

MANUFACTURED BY

E. C. STEARNS & COMPANY,
SYRACUSE, N. Y.

A NEW DRAWING PENCIL.

The J. L. H. DRAWING PENCIL, Nos. 2, 3, and 4, is the result of much careful experimenting to get the right kind of lead at a reasonable price. Made by Dixon Crucible Co. Price, \$3.00 per Cross. Send for Samples. Also Para Rubber and three desirable grades of STEEL PENS made expressly for

J. L. HAMMETT, 24 Cornhill, Boston,
To whom address all orders.

CHAIR TIP.
PATENT ELASTIC STEM TIP.
ACORN TIP.
RUBBER HEAD TACK.

Comfort! Economy!
Durability!

Architects should please their wives by having their own homes fitted with our goods. Send for Catalogue.
Boston Elastic Tip Co., 157 WASHINGTON ST., BOSTON.
PATENTEES AND MANUFACTURERS.

TECHNOLOGY ARCHITECTURAL REVIEW.

DEPARTMENT OF ARCHITECTURE,

Massachusetts Institute of Technology.

VOL. I.

BOSTON, DECEMBER 15, 1887.

No. 2.

TECHNOLOGY ARCHITECTURAL REVIEW.

PUBLICATION OF

The Massachusetts Institute of Technology Architectural Society.

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

THE price of subscription has been fixed at \$3.00 per year instead of \$2.00 as published in our last issue. This action is taken by advice of the advisory board to cover the expense of producing a larger issue than was first arranged for. This is briefly explained by the fact that the expense of publishing the paper is almost wholly carried by advertisement, and that the price of subscription as it was first set did not nearly cover the cost of production.

It was necessary either to limit the circulation, or make the price asked cover cost of production. The latter was the course adopted.

This change affects only new subscriptions.

About the middle of each month a sketch problem occupying three or four days is given to the students as a rest from their study on the monthly competition. On Plate IV. we reproduce the first-mention drawings of three sketch problems, the programmes of which are given below.

DEPARTMENT OF ARCHITECTURE.

SKETCH PROBLEMS. PLATE IV.

FOURTH YEAR REGULARS AND SPECIALS.

OCTOBER 20, 1887.

Programme: A FLOWER-STAND.

THIS little structure is intended for the sale of flowers in a public square or park. It will be constructed of iron, and will be open on three sides at least, with projecting roof to give shade. It may be raised on a platform or terrace, with balustrade and proper steps to reach it. Its area will be about one hundred square feet exclusive of the terrace. Fountains, statuary, and lamp-posts may be added to complete the composition.

Required: plan and elevation, on a scale of one quarter of an inch to the foot. Drawings to be handed in October 24, at 10 A. M.

EUGENE LÉTANG.

JUDGMENT.

First Mention HENRY FORBES BIGELOW.
A graceful design, well suited to its purpose.
Second Mention HENRY D. BATES.
Third mention J. EDWIN FULLER.

Eight designs in competition.

NOVEMBER 10, 1887.

Programme: A FISH-MARKET BUILDING.

The principal condition to deal with in such a structure is that coolness be maintained by means of a free circulation of the air, as well as by watering the place constantly. It is in accordance with this that the plan should be arranged, the openings being well managed, and convenient spaces inside and outside being found for placing fountains. These fountains may be considered useful as well as ornamental features of the edifice. The market must contain forty stalls for retail dealers, these stalls being conveniently distributed and easily accessible to buyers. There must also be a particular space, provided with a platform or stand, for auction sales of large quantities of fish, which would take place occasionally. The building is supposed to be isolated, and its largest dimension not to exceed ninety feet.

Required: principal elevation, on a scale of one eighth of an inch to the foot; plan and section, on a scale of one sixteenth of an inch to the foot. Drawings to be handed in November 14, at 12 M.

EUGENE LÉTANG.

JUDGMENT.

First Mention FRANK A. MOORE.

The building is conveniently arranged, the access easy, stalls and water well placed, and light and air good. Columns might well have been used where solid interior partitions are shown. Façade well proportioned and fitting for the object.

Second Mention HENRY FORBES BIGELOW.

Eight designs in competition.

DECEMBER 31, 1887.

Programme: THE PROSCENIUM BOXES OF A GRAND OPERA HOUSE.

The disposition of this particular part of a theatre being generally a difficult point as to its arrangements with the adjacent parts, students will try their best to meet the conditions required by both the service and the architectural decoration. The principal box is supposed to be located on the first floor, — that is, about the level of the main balcony. To this box will be added a small drawing-room, or *boudoir*, and a private staircase. These different parts will be attached on one side to the curtain wall separating the auditorium from the stage, and on the other side to the galleries or boxes of the auditorium.

Required: One plan and one cross section, on a scale of one eighth of an inch to the foot; also one section showing the front elevation of the proscenium boxes, on a scale of one eighth of an inch to the foot. This may be drawn in perspective if preferred. Drawings to be handed in January 5, 1888, at 4 P. M.

EUGENE LÉTANG.

JUDGMENT.

First Mention HENRY FORBES BIGELOW.

The problem is well treated, the arrangements being good and the treatment dignified and refined.

Second Mention W. PROCTOR, JR.

EDMUND M. WHEELWRIGHT, *Critic.*

DEPARTMENT OF ARCHITECTURE.

NOVEMBER 1, 1887.

MONTHLY COMPETITION.

FOURTH YEAR REGULARS AND SPECIALS.

Programme: A MONUMENTAL FOUNTAIN.

THE authorities of a large city have voted a memorial to a noted citizen. This memorial is to be a monumental fountain, and its design must be subject to the following principal conditions: the place assigned for it is the corner of two broad streets which meet at an angle of sixty degrees, leaving a lot in the shape of an isosceles triangle whose base is fifty feet; upon this base stands the end wall of a block of buildings fifty feet high; and against this wall the fountain is to be built, enclosed by a curb, wall, or fence, which shall give room for a margin of turf inside, but not, however, contain the whole triangle.

Required: a preliminary sketch (plan and elevation),—on a scale of one eighth of an inch to the foot,—to be handed in November 5, at 12 M. Finished drawings,—a plan on a scale of three sixteenths of an inch to the foot; an elevation on a scale of three eighths of an inch to the foot,—to be handed in November 30, at 4.30 P. M.

EUGENE LÉTANG.

JUDGMENT.

First Mention HENRY FORBES BIGELOW.
Second Mention W. PROCTOR, JR.
Third Mention GEO. C. SHATTUCK.

Eight designs in Competition.

NOTES TAKEN FROM CRITICISM.

FIRST MENTION.

PLATE I.

The general simplicity of the design, the richness of treatment being in the main confined to the fountain and its accessories, is well conceived. The main feature of the design is thus satisfactorily isolated from any incongruous structures which may exist in other buildings in the blocks adjoining. The design is in good proportions, and the parts are pleasantly distributed. The topping-off is somewhat frivolous. The bases of the groups of statuary flanking the fountains should have been attached to the main wall. The use of a colossal woman's head in the keystone injures the scale of the statues, which are themselves in good proportion. It would have been better to give the keystone some conventional ornament, or to omit it altogether. The water of the fountain is well subordinated to the surroundings, is used with pleasing variety and with good architectural sense. The drawing is well rendered, the figures are well drawn.

SECOND MENTION.

PLATE II.

The general proportions are good. The motive of the capping of the design is better than in the foregoing. The central ornamental feature is not well isolated. If piers had been substituted for the outer single columns, the central feature would have been better accented, to say nothing of its being better isolated from possible incongruous surroundings, and the whole design would have gained strength. The caps of the pedestals should have been recognized in the pedestal of the statue. As designed, this course runs awkwardly behind the pedestal with no relation to it. The statue itself might well have been placed higher in the niche. The flanking statues are awkwardly placed, having no proper surface on which to cast an effective shadow, are not essential to the design, and should have been omitted. The water is not well used. A great stream pours from a niche behind the principal statue, and comes to a meagre ending in little, weak jets. This treatment is the reverse of what is seen in nature, or is admirable, therefore, in art. The large jet of water behind the principal statue is in itself a mistake, unless the statue be that of a river god. The rendering of the design is fair; the statues are, however, weakly drawn and poorly rendered.

THIRD YEAR REGULARS AND SPECIALS.

Programme: A SUMMER PAVILION UPON A BRIDGE.

A wealthy gentleman owns property in which are two confluent streams, one larger than the other. At their confluence he proposes to build a bridge running across both streams, and also an open pavilion, for the purposes of getting rest and shelter in the summer time and enjoying a full view of the beautiful surroundings. Outside steps will be necessary in order to go from the structure down to the level of the water, where a landing for small row-boats, and even a boat-house, may be arranged. This boat-house may be directly under the pavilion, or in the space left between the arches of the bridge. The floor of the bridge is to be about fifteen feet above the water, and the length no less than one hundred feet; the whole to be built of light-colored stone, except the roof of the pavilion, which may be slate, tile, or even metal.

Required: a preliminary sketch (plan and elevation),—on a scale of one eighth of an inch to the foot,—to be handed in November 5, at 12 M. Finished drawings,—one elevation on a scale of three sixteenths of an inch to the foot; plan and section on a scale of three thirty-seconds of an inch to the foot,—to be handed in November 30, at 4.30 P. M.

EUGENE LÉTANG.

JUDGMENT.

First Mention THEODORE W. PIETSCH.
1st Second Mention J. LAWRENCE MAURAN.
2d Second Mention JOHN W. CASE.
3d Second Mention EDWARD A. CRANE.
4th Second Mention GEO. C. WALES.

Twenty-one designs in Competition.

NOTES TAKEN FROM CRITICISM.

FIRST MENTION.

PLATE III.

The structure is very pleasantly proportioned, and shows picturesque variety in the arrangement of the steps. The form of the bridge is pleasing, and the detail is good. The design is well tied together. The pavilion is suited to its purpose, being adequately gay in character. The awning, however, is not a fair substitute for an architectural feature, for if removed the design would lose much in balance. There is good provision for a boat-house. The difference in width of the two streams is not recognized.

1st SECOND MENTION.

PLATE III.

The form of the bridge is not as good as in the above, but the difference in width is, however, recognized. The pavilion is a pleasantly proportioned feature, but less a shelter for the wayfarer than for the statue. The design is not so well bound together as in the above, nor is the arrangement for the boat-house so good.

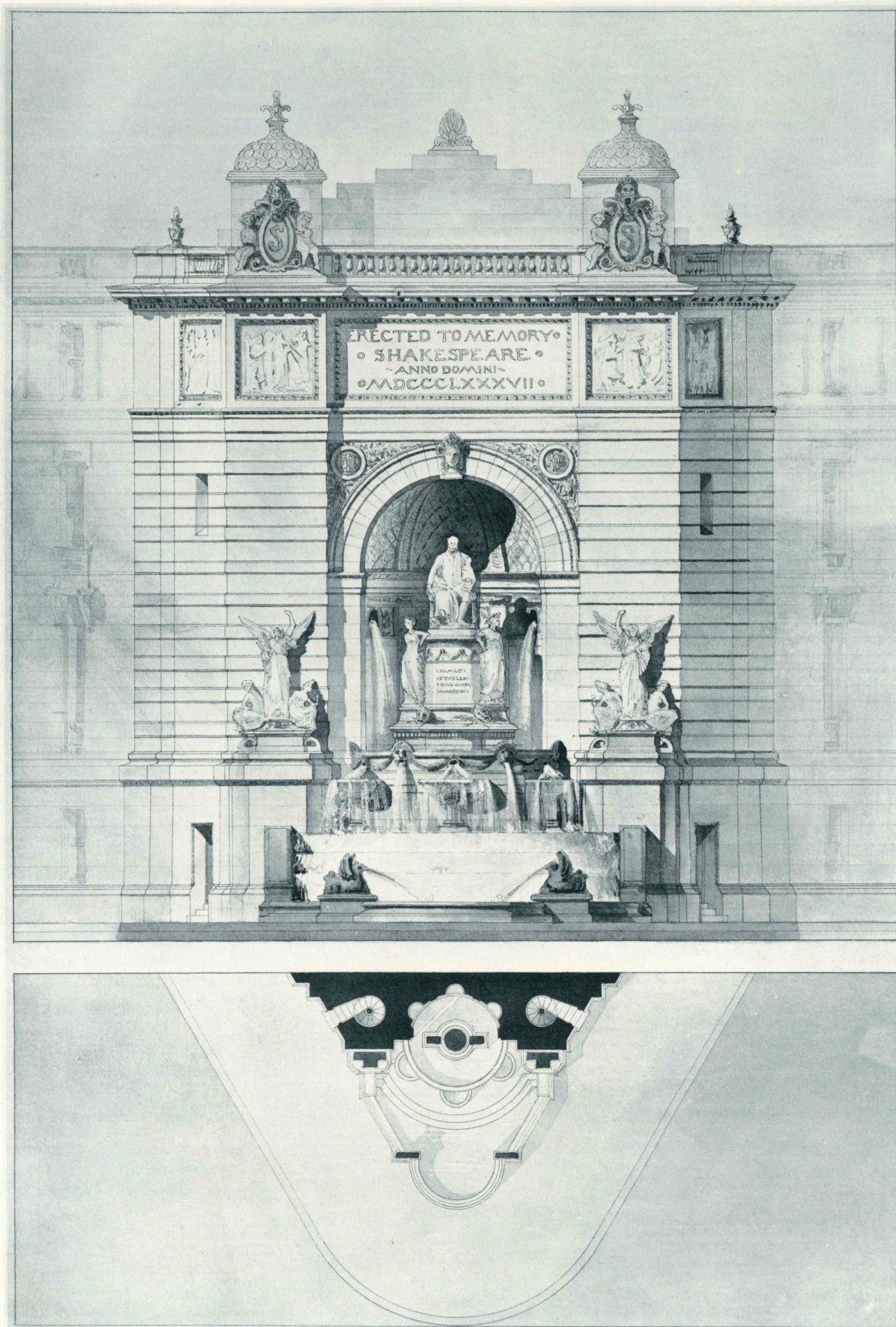
2d SECOND MENTION.

PLATE III.

The difference in the width of the streams is not recognized, and there is lack of relation between the bridge and the pavilion. In itself, the pavilion is better than in the other two; but the junction of the staircase and bridge at a re-entering angle is not pleasing. The corbelling of the rail of the bridge might well have been omitted. The boat-landing is not well arranged.

ARTHUR ROTCH,
C. HOWARD WALKER,
THOMAS O'GRADY, JR.,
A. W. LONGFELLOW, JR.,
EDMUND M. WHEELWRIGHT,

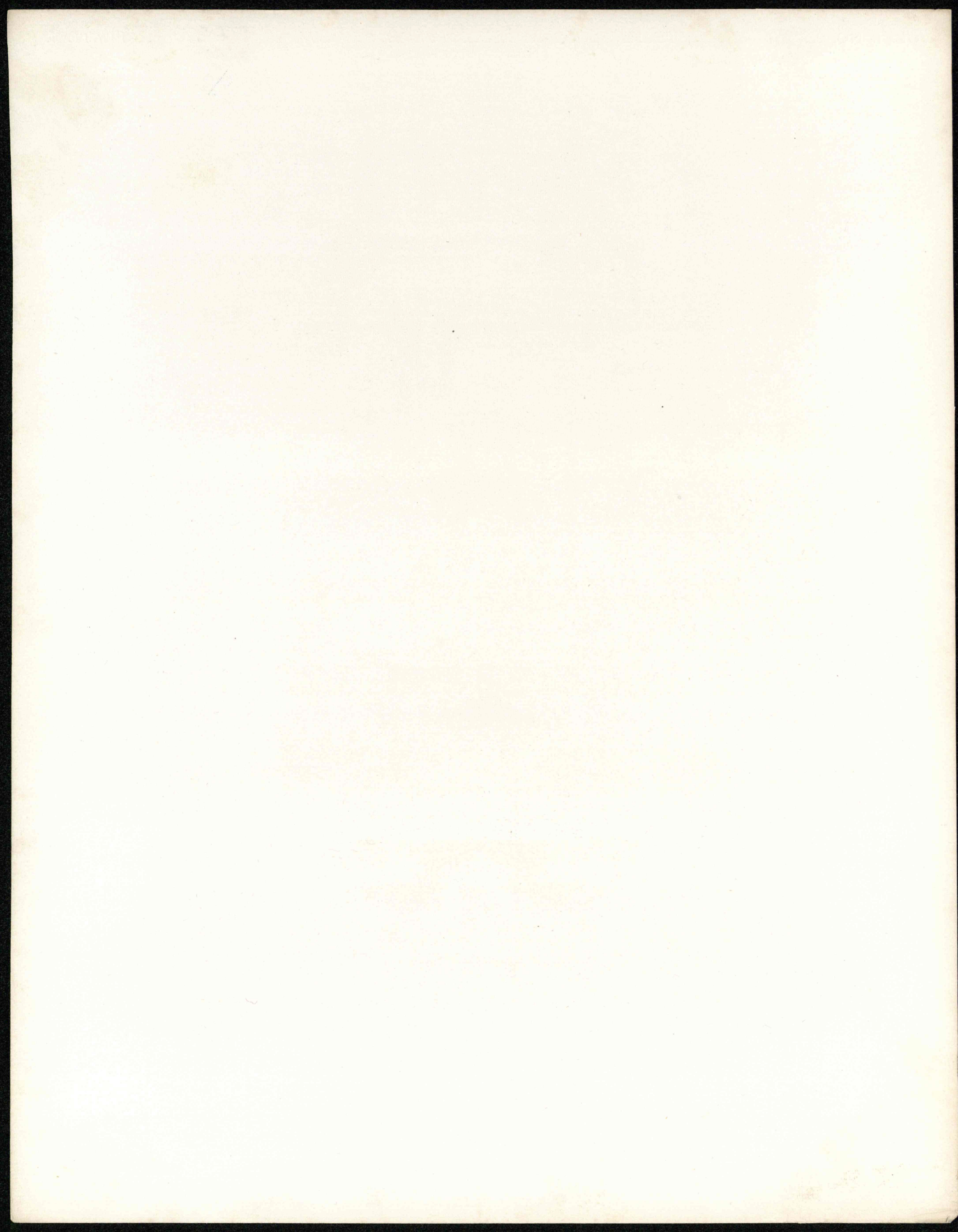
*Jury.*EDMUND M. WHEELWRIGHT, *Critic.*

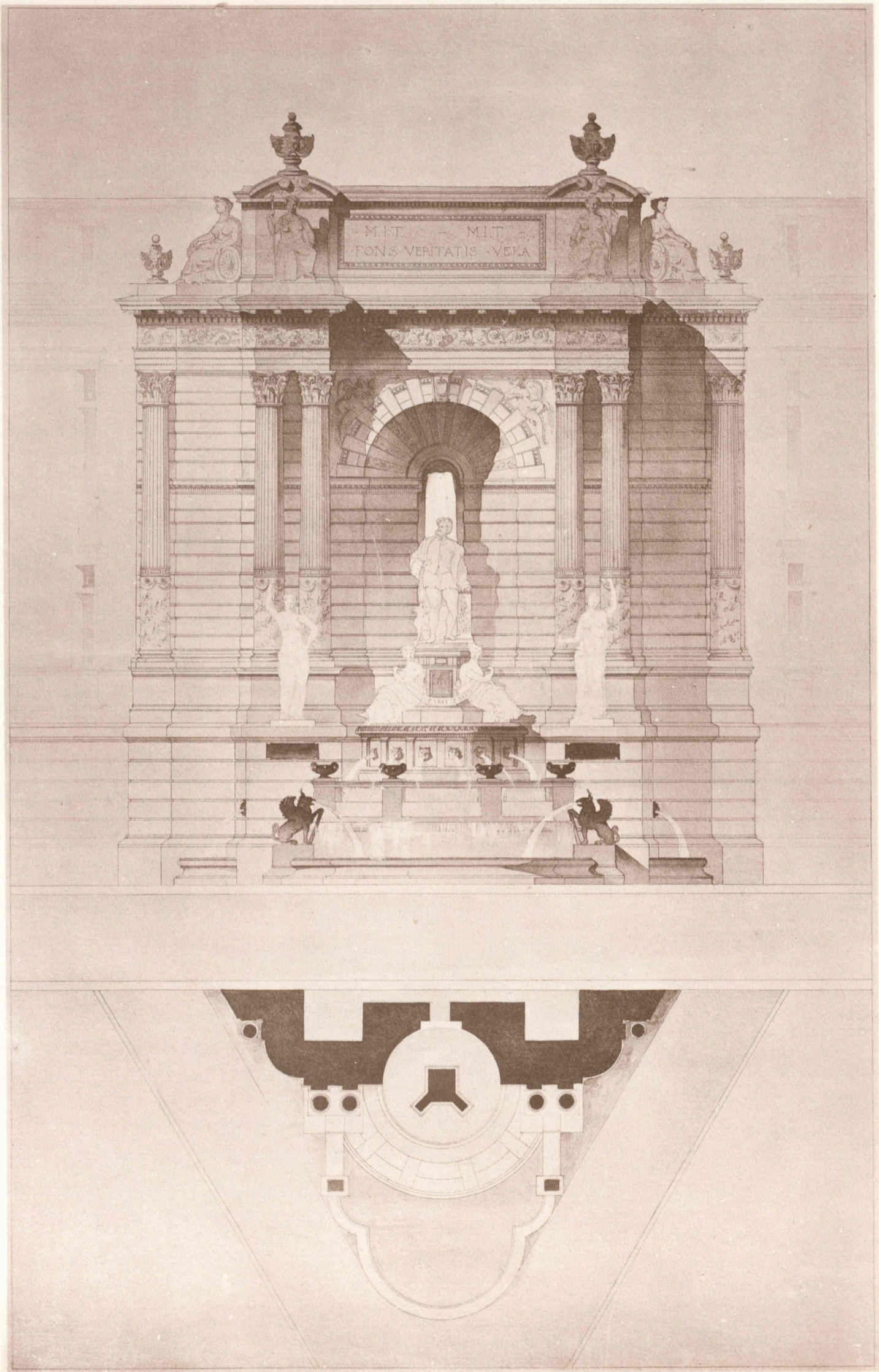


A MONUMENTAL FOUNTAIN.

MONTHLY COMPETITION.
FOURTH YEAR CLASS.

FIRST MENTION.
HENRY FORBES BIGELOW.

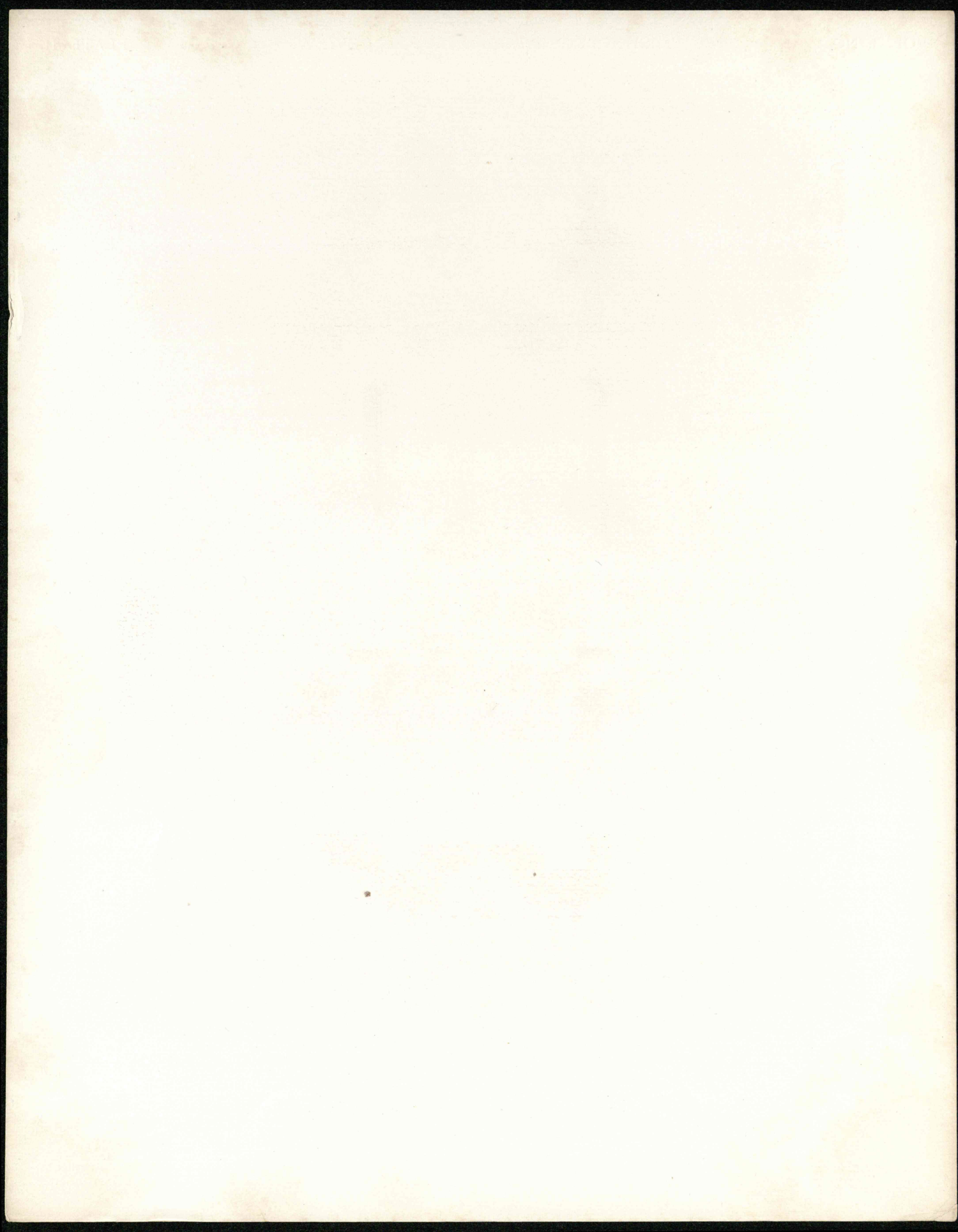




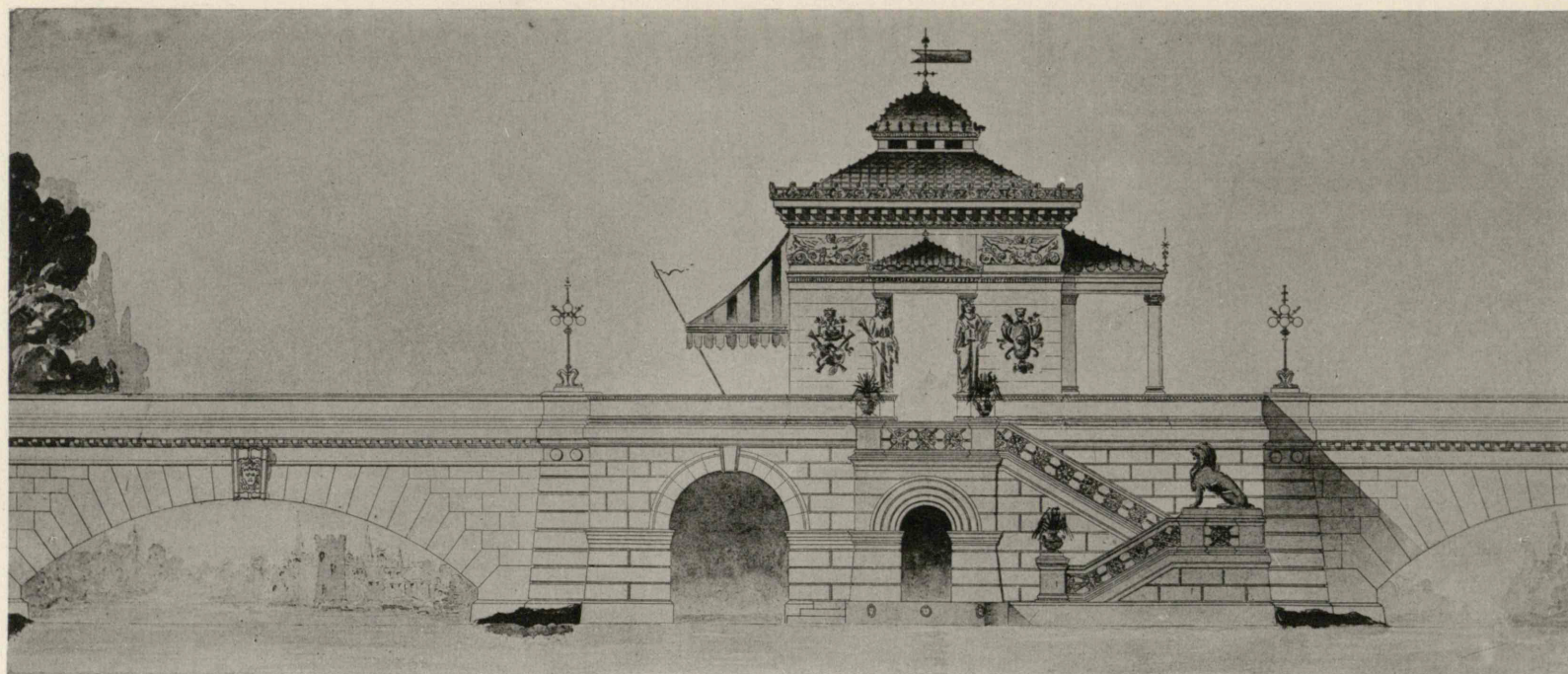
A MONUMENTAL FOUNTAIN.

MONTHLY COMPETITION.
FOURTH YEAR CLASS.

SECOND MENTION.
W. PROCTOR, JR.



PUBLICATION OF
THE M. I. T. ARCHITECTURAL SOCIETY.



FIRST MENTION.

THEODORE W. PIETSCH.



1ST SECOND MENTION.

J. LAWRENCE MAURAN.

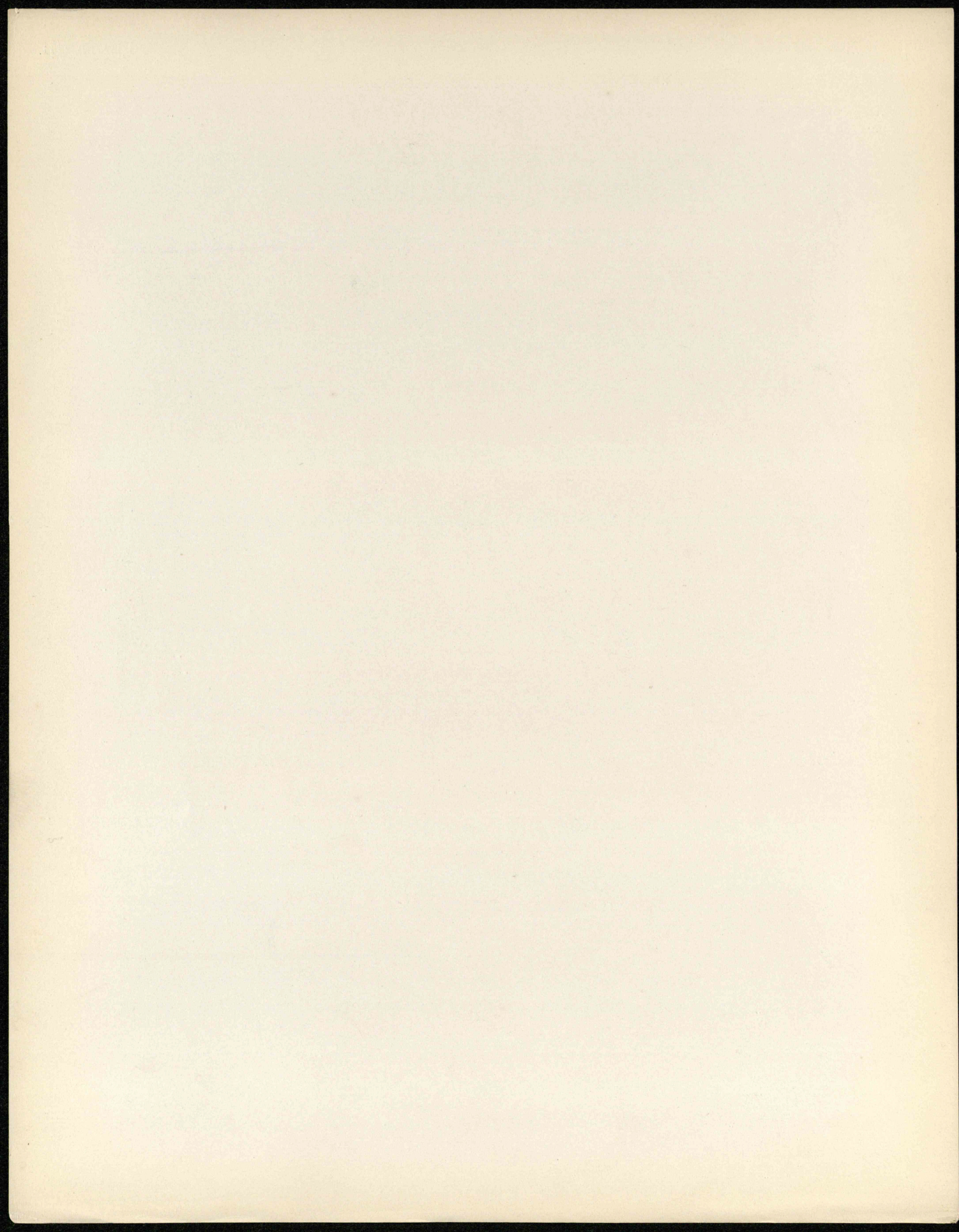


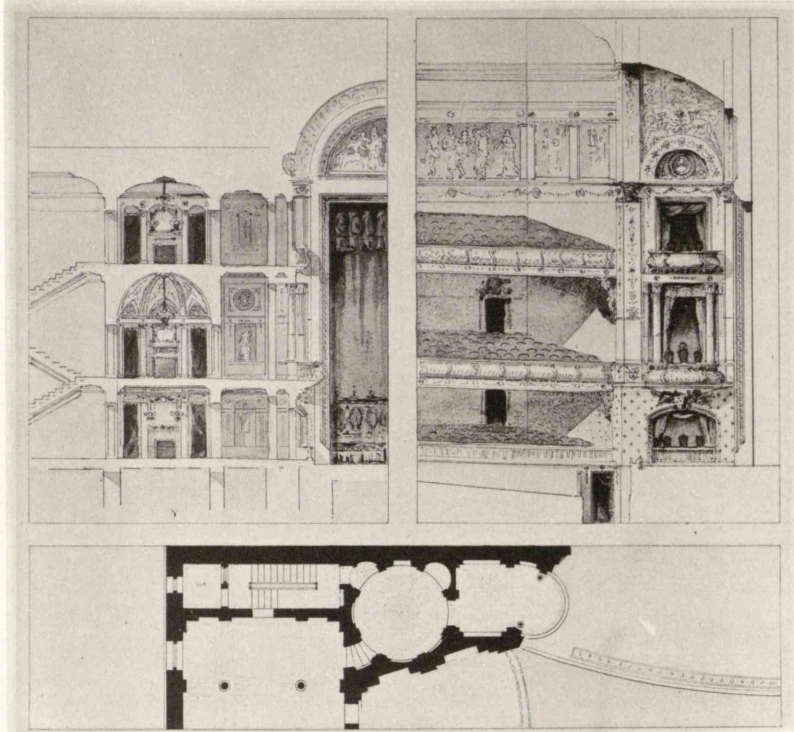
2ND SECOND MENTION.

JOHN W. CASE.

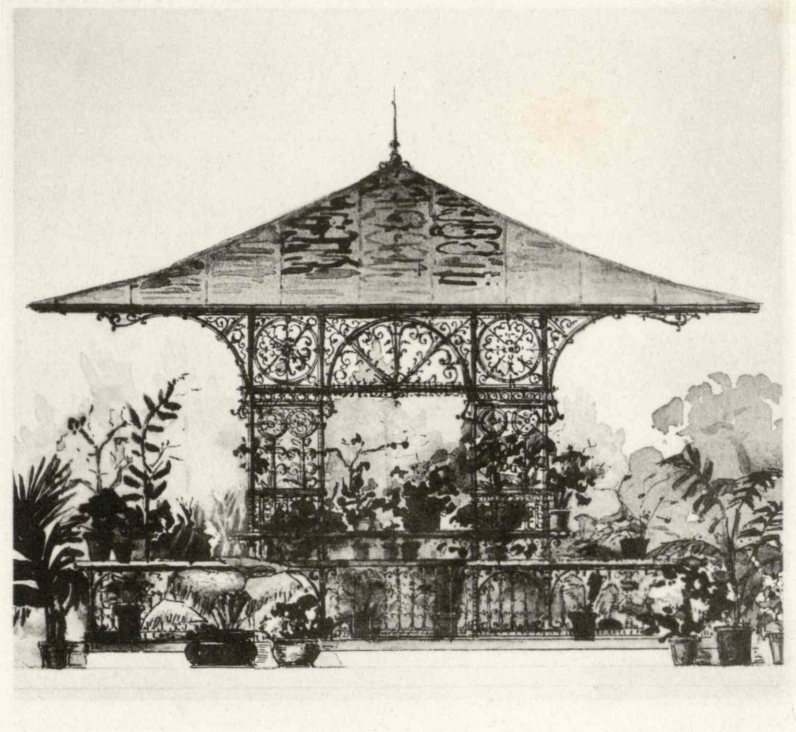
A SUMMER PAVILION UPON A BRIDGE.

MONTHLY COMPETITION, THIRD YEAR CLASS

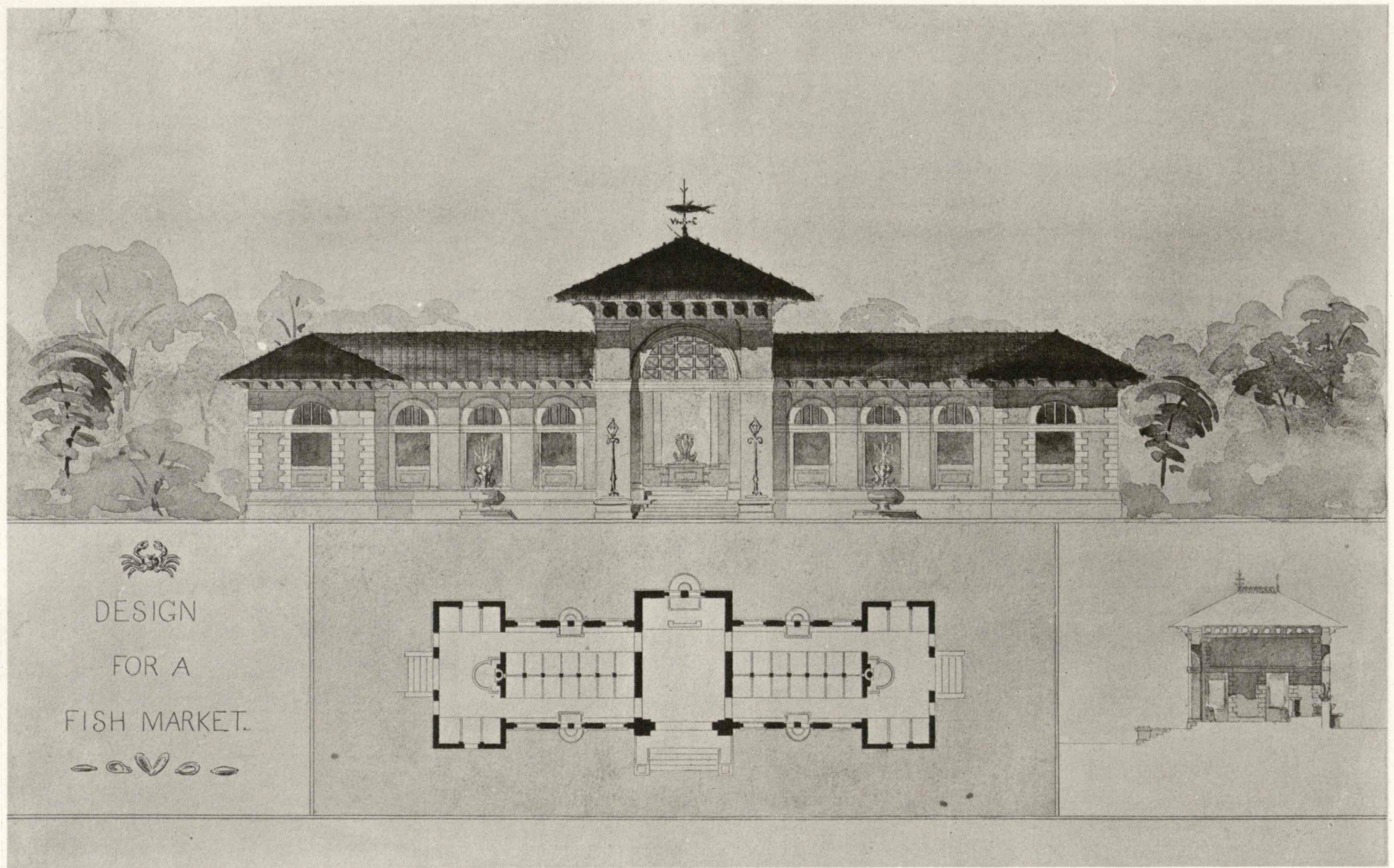




FIRST MENTION. HENRY FORBES BIGELOW.
THE PROSCENIUM BOXES OF A GRAND OPERA HOUSE



FIRST MENTION. HENRY FORBES BIGELOW.
A PUBLIC FLOWER STAND.



FIRST MENTION.

FRANK A. MOORE.

A FISH MARKET BUILDING.

