

THE AMERICAN ARCHITECT

VOLUME CV

WEDNESDAY, APRIL 1, 1914

NUMBER 1997



SOUTH PARK HIGH SCHOOL, BUFFALO, N. Y.

MESSRS. GREEN & WICKS, ARCHITECTS

THE building is situated on property bounded by South Park Avenue, Josie Place, Taylor Place and Macamley Street, Buffalo; the principal façade being on South Park Avenue.

The surface of the land in the vicinity is low and level, and, in lieu of the usual excavation and story below grade the ground floor is placed on a level slightly above that of the streets bounding the property; and the lawns about the building are filled and terraced, affording a very dignified and interesting setting.

The school has accommodations for 1,300 students, or considerably more than this number, with the Auditorium in use as the assembly room for the first period of school; thus making it possible to accommodate as many more students as the second period would take out of the large study rooms.

The building has a ground story and three schoolroom stories, each story being thirteen feet six inches in the clear in height.

The gymnasium and power plant are placed in an extended wing,—separate buildings,—and do not interfere with the quiet and cleanliness of the school building.

The general plan is of the enclosed court type, with the auditorium in the center.

There is one principal entrance in the middle of the façade on South Park Avenue, leading into a spacious hall and across the school proper to the auditorium.

There are also four main entrances, one near each corner of the building. In connection with these entrances are staircases leading to all stories of the building. The entrances and staircase halls are cut off from the main corridors of each story by light-weight, steel fire-doors; thus providing fireproof and panic-proof exits. The entrance doors at the foot of these stair-halls are supplied with panic opening hardware.

The corridors in all stories extend entirely around the interior court, thus affording quick access to every room and to all stair-halls.

The study rooms at the corners of the building, nine in number, each thirty-three feet by fifty-seven feet, provide 145 seats each, giving thirteen square feet of floor space and 175 cubic feet of air to each student. Three other rooms, of the same size and in similar position as the study rooms, are used respectively for library, mechanical drawing and science lecture room.

The recitation rooms are nearly all twenty feet six inches wide by twenty-seven

THE AMERICAN ARCHITECT

feet long, and provide thirty-six seats each, giving fifteen and one-half square feet of floor space and 220 cubic feet of air to each student.

The rooms for domestic science, such as housekeeping, laundry work, dressmaking, millinery, etc.; commercial work, including bookkeeping, typewriting and stenography; technical trades, such as printing, foundry work, drawing, etc.; and the room for botany, zoology, chemistry and physics, are provided with suitable quarters. Certain unassigned rooms will probably be used for the study of gardening, small farming and similar occupations.

The opening for natural light through the windows is twenty-five per cent. of the floor area of each room.

The day and night locker rooms, general lavatories and lunch rooms for girls in one end of the building, and for boys in the opposite end of the building, are provided in the ground story. The balance of the space in this story is devoted to staircases,

corridors, air shafts, kitchen, caretaker's apartments, except such portions as are used for the ventilation fans, air washer apparatus and indirect heating coils.

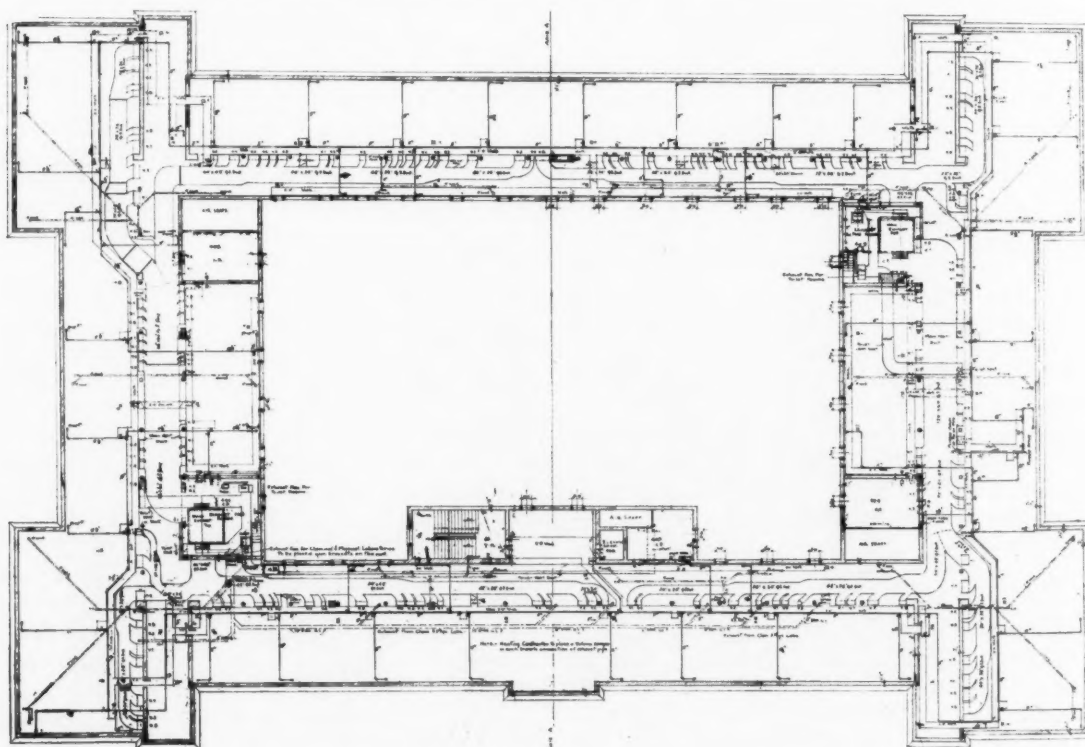
An elevator is provided for emergency and for the use of teachers, guests or students who through physical disability are unable to use the staircases.

Each story is also supplied with lavatories for boys and for girls, rest rooms being provided in certain parts of the building.

The gymnasium is a separate building, the lower story of which is supplied with a shower room for girls and one for boys; the upper part is provided with a gymnasium room, sixty feet wide by eight-five feet long, equipped with running track and visitors' gallery.

The gymnasium building is arranged with a separate entrance, so that it may be reached from the street without passing through the school building.

The auditorium is in the middle of the interior court, with entrances and exits



ATTIC PLAN

SOUTH PARK HIGH SCHOOL, BUFFALO, NEW YORK

MESSRS. GREEN & WICKS, ARCHITECTS

DETAILS OF AUDITORIUM

SOUTH PARK HIGH SCHOOL, BUFFALO, NEW YORK
MESSRS. GREEN & WICKS, ARCHITECTS

THE AMERICAN ARCHITECT

to all corridors in the first and second story of the building. It has a seating capacity of 1,500, and is supplied with a gallery and a large stage; the stage is so arranged that an organ may be added.

The building is fireproof, the floors are supported on outside brick walls and interior steel columns, and are constructed of reinforced concrete supported on steel beams.

Most of the finish floors throughout the building are terrazzo, laid in squares to prevent checking as far as possible, and so that repairs may be made without showing patches. The finish floors of recitation rooms are made of white maple.

The trim throughout the building is of oak and exceedingly simple in design. All walls are plastered with hard cement plaster, and picture rails, chair rails, casings, etc., are avoided as much as possible.

The material for the face of the building is Indiana limestone and gray brick, the brick laid with a wide, open joint, with natural mortar.

The building is designed in a substantial manner, in free classic style. The façades on all elevations are designed in unit construction, so that schoolrooms may vary in size as need be by placing the cross partitions so as to increase or decrease the length of the rooms.

The cost of the building, including the heating, lighting, plumbing, etc., but without other equipment, is approximately \$700,000, or twenty and one-half cents per cubic foot, with the volume measured from the ground floor line to the top of the wall copings. A detailed description of the mechanical equipment,—plumbing work, heating and ventilating, and the electrical installation,—of this school building, will be found in the Engineering and Mechanical Department of this issue on page 145.

A RECENT LEGAL DECISION

SLIGHT DEVIATIONS FROM CONTRACT

Deviations from a building contract which are, under the circumstances, slight, inconsequential and inconsiderable, if not wilful, will not prevent a recovery under the contract.

Pratt v. Dunlap (Conn.), 82 Atl. 195. (J. S.)

THE HIGH SCHOOL OF PRACTICAL ARTS, BOSTON, MASS.

MR. J. A. SCHWEINFURTH, ARCHITECT

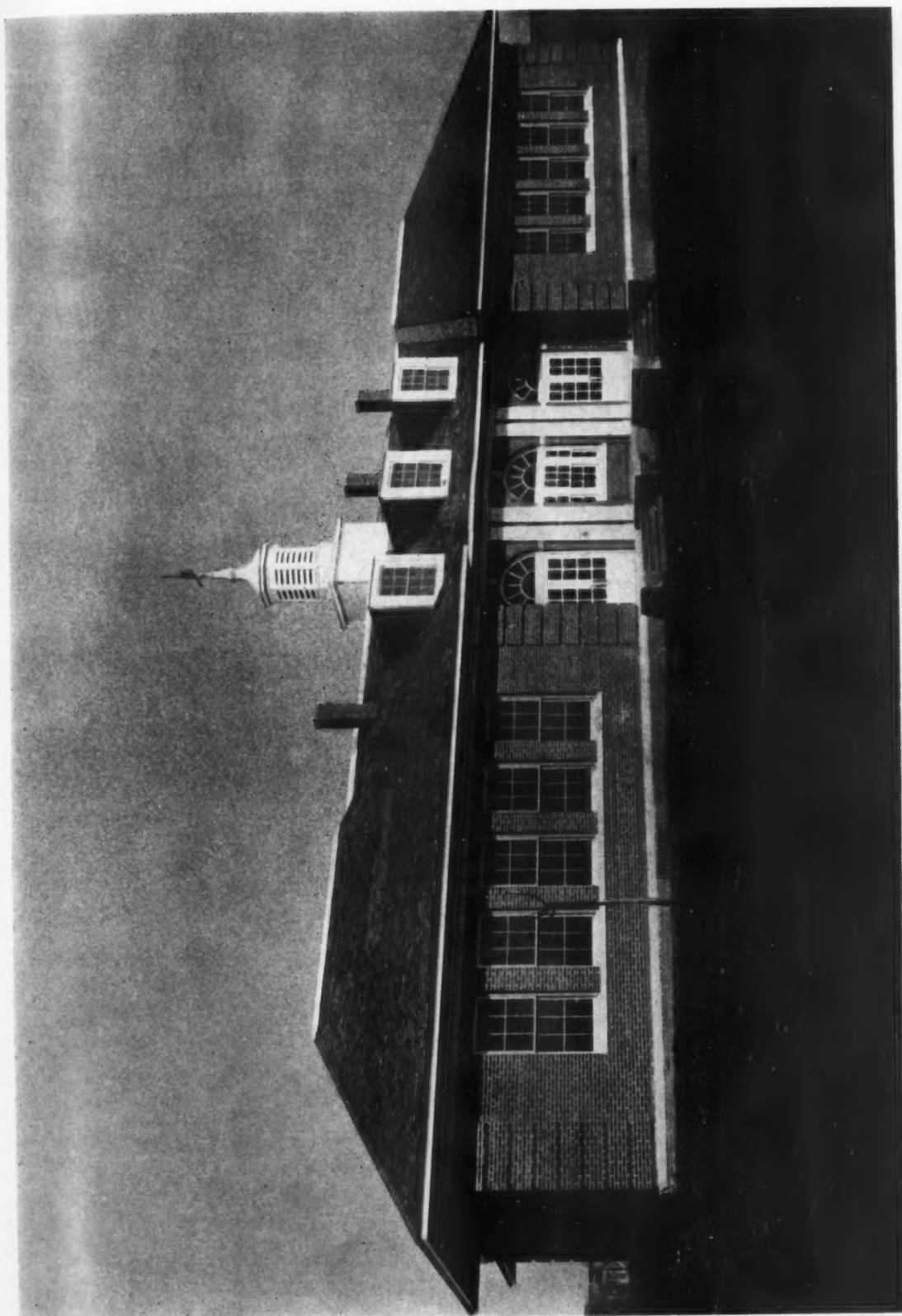
The dignified aspect of paternalism in modern education is substantially shown in the larger cities throughout the country, by the schools that have been erected to impart education in domestic and other practical arts and sciences.

The fact that respect for educational opportunities is very largely increased by the character of the environment has for a long time influenced the policy of those in charge of the designing and development of modern school buildings. An attractive instance of this course is illustrated by Mr. Schweinfurth's High School of Practical Arts, Boston, Mass., recently completed and now in successful operation.

This school building, designed to teach girls the domestic arts and all that pertains thereto, is located corner of Greenville and Winthrop Streets in Boston, Mass., not far from the Dudley Street Elevated Station. With twelve feet fall in sidewalk of a triangular shaped lot a difficult problem in planning and arrangement of floors was presented.

Building is of light gray brick with Indiana limestone trimmings in a modified Greek style. The building is simple and severe inside and out as befits a school, but monumental in character. As the requirements for lighting in the city of Boston schools are that each class room shall have a window glass surface equal to one-fifth of the floor area of the room lighted, it becomes quite a problem to obtain a dignified architectural effect with so much window and so little masonry. Considering its area, that it is fireproof, the angular shape of the lot and the varying grades necessitating so many angles and breaks, it is a building of remarkably low cost, about \$320,000.

The exterior is rather severe, the ornament being massed about the centre of the Greenville Street facade, in which is located the main entrance guarded by two caryatids, sculptured from stone. The streets are narrow. In order to get a view of the whole front, an oblique view had to be taken. The picture does not present an adequate idea of the whole mass.



SCHOOL BUILDING, BRYAN, TEXAS, MR. F. J. FOUNTAIN, ARCHITECT

THE AMERICAN ARCHITECT

REPORT OF COMMITTEE OF THE A.I.A. ON ALLIED ARTS

The Committee on Allied Arts has endeavored to carry into effect the establishment of an annual prize for collaborative work at the School of Rome, as suggested in its report to the Forty-sixth Convention of the American Institute of Architects and as recommended by resolution of that body.

We regret the unavoidable delays encountered in arranging details with the authorities of the Roman School, and to the end that further delays be avoided, we suggest that the recommendation of the last Convention be by this Convention made an instruction.

We have taken to heart the findings of the Committee appointed to report on the reports of the Standing Committees, and wish to thank that Committee for its support of our suggestions; we doubt, however, the wisdom of further extending American Institute machinery by adding Chapter Sub-Committees of the Committee on Allied Arts, as recommended. We ask, rather, to be allowed to define the full list of Arts that are to be officially recognized as "Allied Arts" and to add to the roster of our Committee a regular representative of each art, science, or craft, that may be so recognized. As a result of the last Convention's action, a representative of the landscapist's art has been added to our Committee, thus breaking away from the traditional triumvirate—Architecture, Sculpture, and Painting, and giving recognition once for all, to this fundamental science, as an "Allied Art."

The suggestion that our work should, to a large extent, be co-operative with that of the Committee on Education, is accepted with alacrity. We go so far as to hope that the Committee on Education may be willing to turn its most active attention to the providing of means for collaborative study for American students right here at home.

Mr. Blashfield's associates in the Committee on Allied Arts take this opportunity

to acknowledge their special obligation to Mr. Blashfield for so ably emphasizing the principles for which the Committee stands, in his admirable paper read before the last American Institute Convention, and also to Mr. Cass Gilbert for his prompt and graceful appreciation of Mr. Blashfield's effort, uttered from the floor of the Convention.

Summarizing the present ambitions of our Committee:

We hope that the Convention now in session may find it advisable to make such recommendations and give such instructions as shall make the American Institute of Architects' proposed annual prize for collaborative work at the Roman School an accomplished fact—

We hope that steps may be taken to so modify our constitution and by-laws, that a representative of each of the arts accepted as an "Allied Art," may have regular membership in this Committee, whether holding membership in the American Institute of Architects, or not—

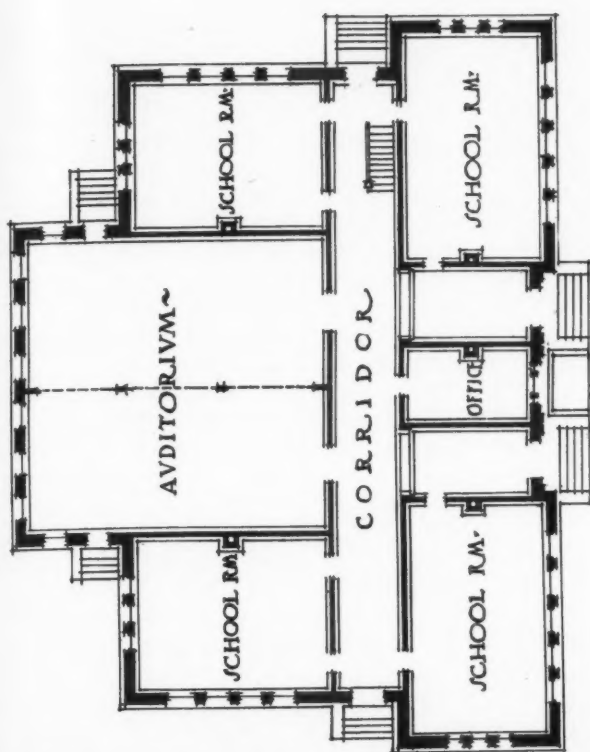
We hope that our Committee may be instructed to define the arts to be officially recognized as belonging to the Allied Arts group; and to add to its membership an eminent representative of each of the branches so added to our present list—

We hope that the Committee on Education may be instructed to foster in all proper ways collaborative study and the establishment of means to that end—

We hope that the Committee on Publicity and the *Journal* of the Institute may be instructed to spread abroad, as a fundamental American Institute principle, the belief that sympathetic, intelligent collaboration among the Allied Arts is, and always has been, the only sure road to a worthy architecture in any age or any land—

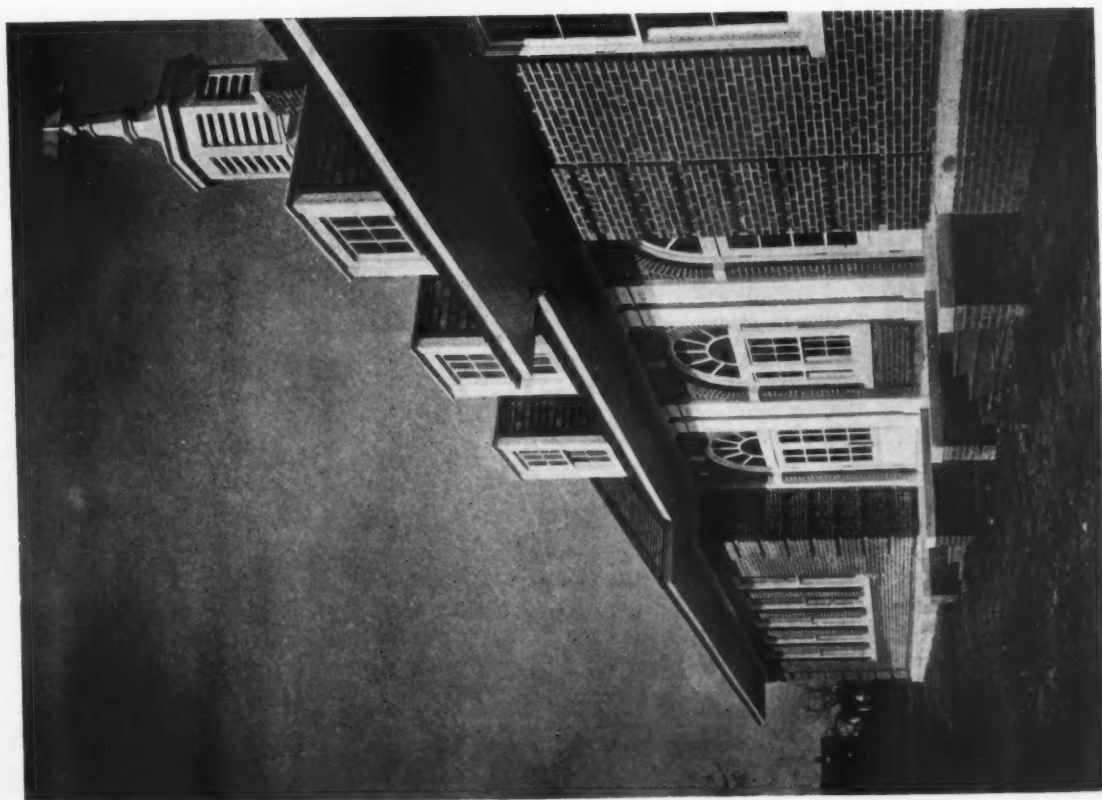
And finally we hope that the whole membership of the American Institute of Architects will help the campaign for more effective combined effort in architectural work, by individually sounding a warning against architectural specialism and by shouting whenever and wherever possible the slogan of its Allied Arts Committee—*Collaboration!*

THE AMERICAN ARCHITECT



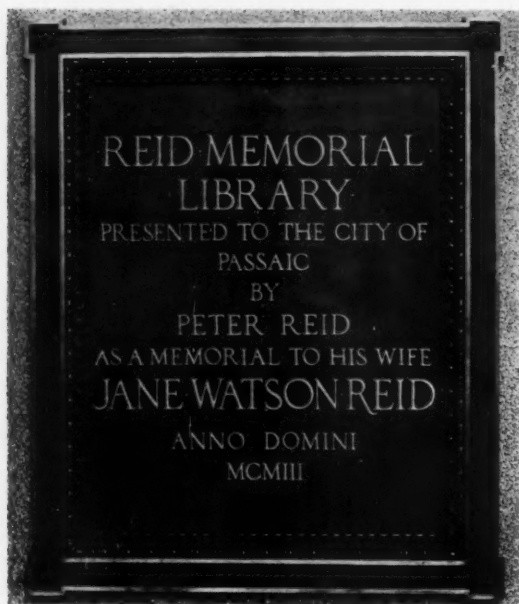
SCHOOL BUILDING, BRYAN, TEXAS

MR. F. J. FOUNTAIN, ARCHITECT



ARCHITECTURAL BRONZE TABLETS

When the business card of a man with whom he is not acquainted is presented to a busy man, he forms his first impression of the personality it represents. If the printing is poor and the



THE SIMPLE DIGNITY OF THE ARCHITECTURAL PANEL AND LETTERING COMMEND THIS AS A MEMORIAL TABLET

card soiled or of inferior quality, the man at the desk will probably assume that the business it announces is of the same character and may refuse even to see its representative. Similarly, as the bronze tablet or other device bearing a firm's name is essentially a business card presented to the man on the street, it should be of such character as will command respect and inspire confidence in the institution.

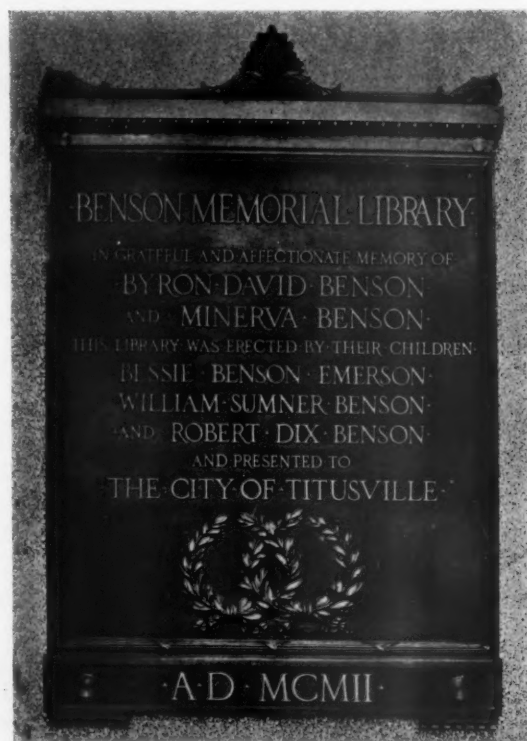
On account of its intimate association with the building such a tablet is usually most successful when architectural in its design. The freely conceived cartouches and "art nouveau" panels seen occasionally, while perhaps interesting in themselves, are very often inharmonious with the severe, conventional lines of the architectural background. Possibly a few illustrations of tablets in situ will prove of interest.

The name plate of the Central Trust

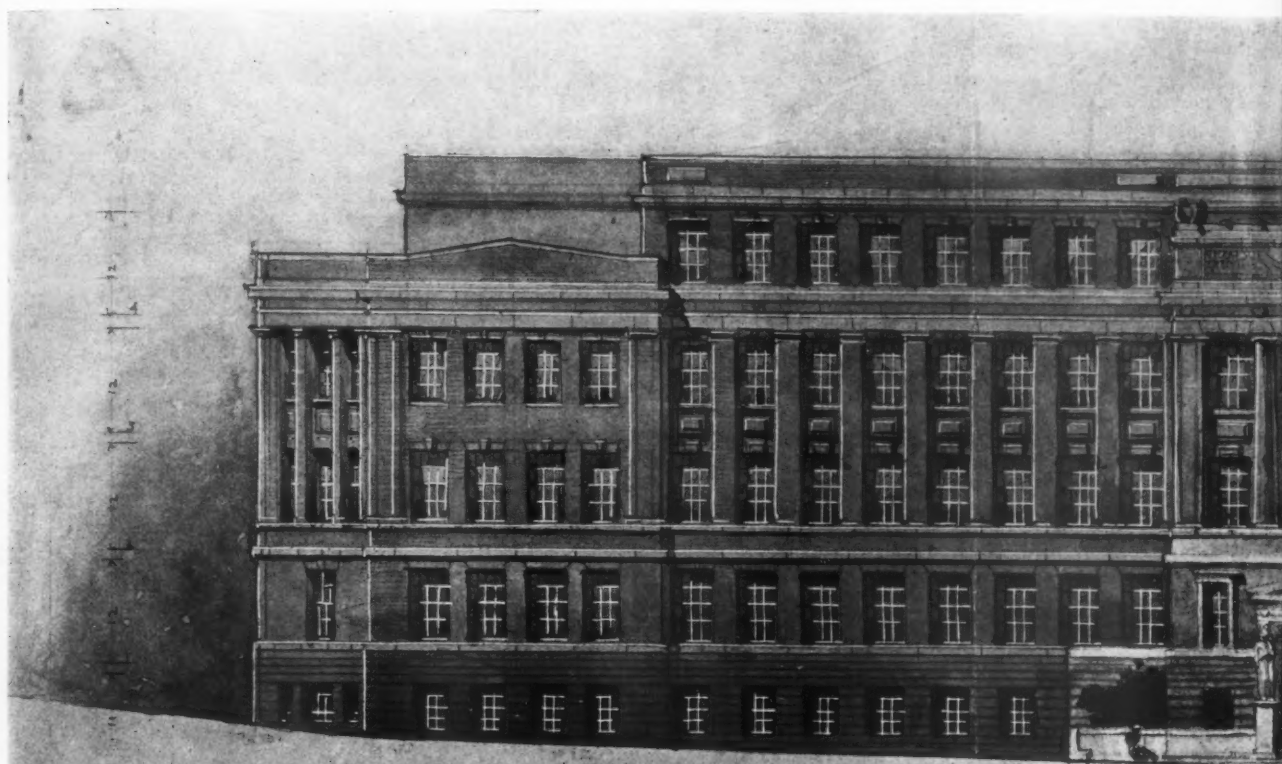
Company may be cited as a good example of architectural bronze. The mouldings of the architrave, the tiny rosettes in the corners, the acanthus motif with the volutes on either side, and the broad, dignified lettering, are all as distinctly Roman as the base of the Ionic pilaster against which the panel is placed. The tablet bearing the name of the Lawyers Title Insurance and Trust Company is also architectural in design, but treated in a different way. This plate, cast with a narrow moulding of small dentils, is enclosed in a cut-stone panel formed by a simple architrave, crowned with a Renaissance cornice and cresting.

When conditions permit, and make it desirable to attract greater attention, the bronze tablet may be devised so as to project perpendicularly from the face of the building. As an example of this, the movable bronze standards at the principal entrances to the Metropolitan Building, while dignified in design, also compel attention by the prominence of their location. The

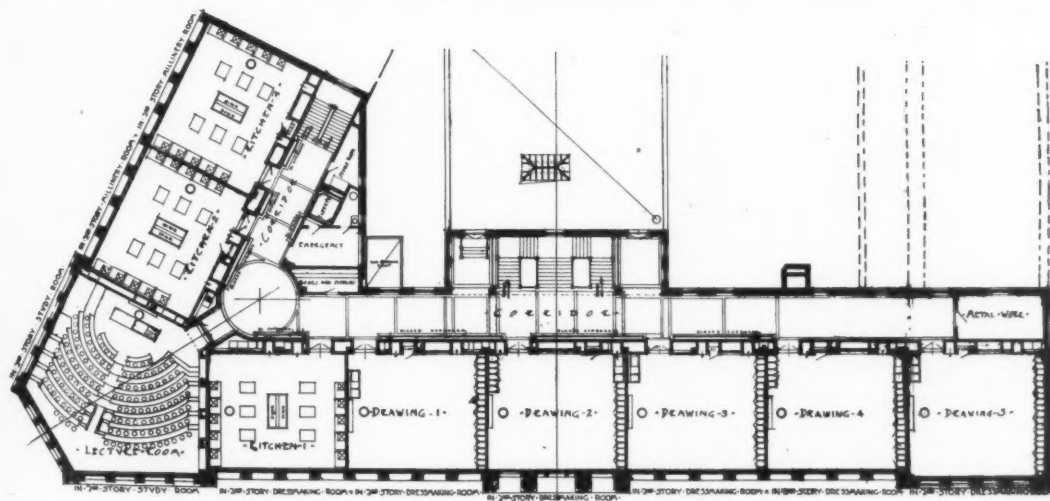
(Continued on page 143)



THE COMPOSITION OF THE LETTERING AND THE CHASTE BEAUTY OF THE GREEK FRAME COMPEL ADMIRATION



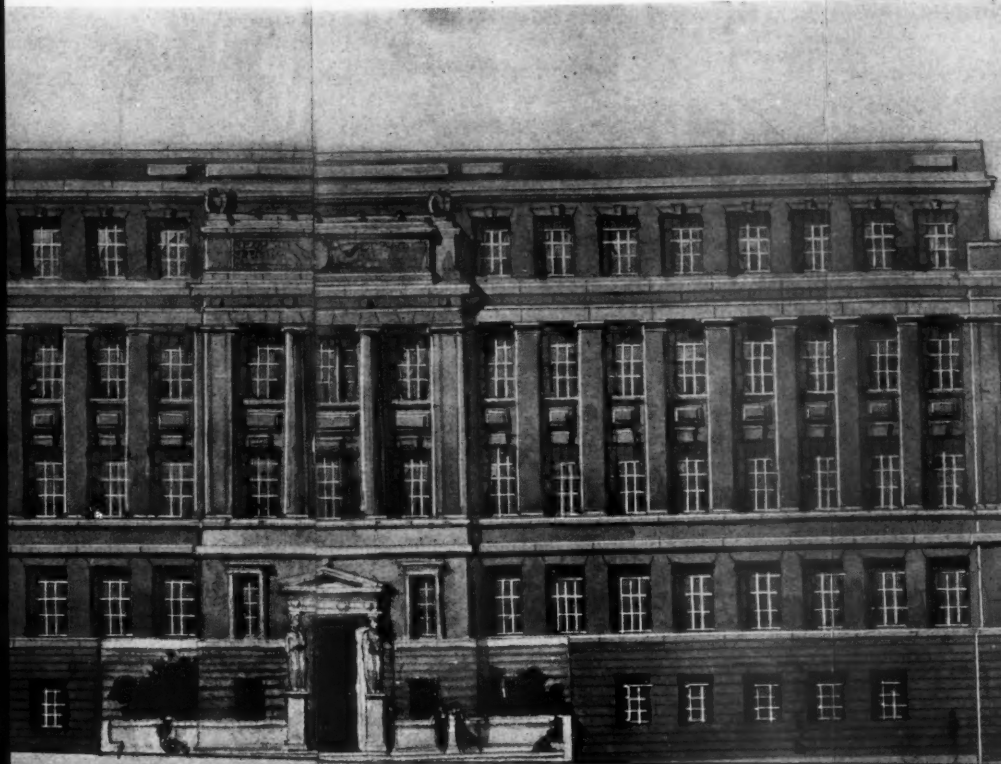
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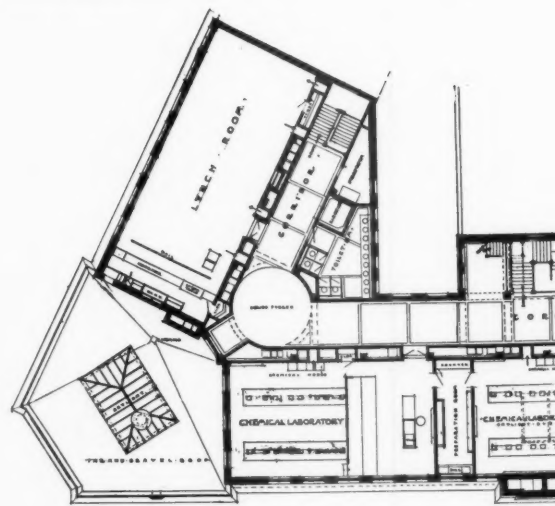
HIGH SCHOOL OF PRACTICAL

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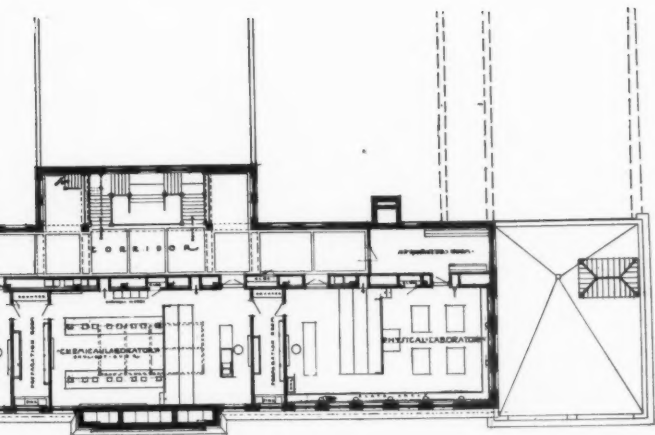
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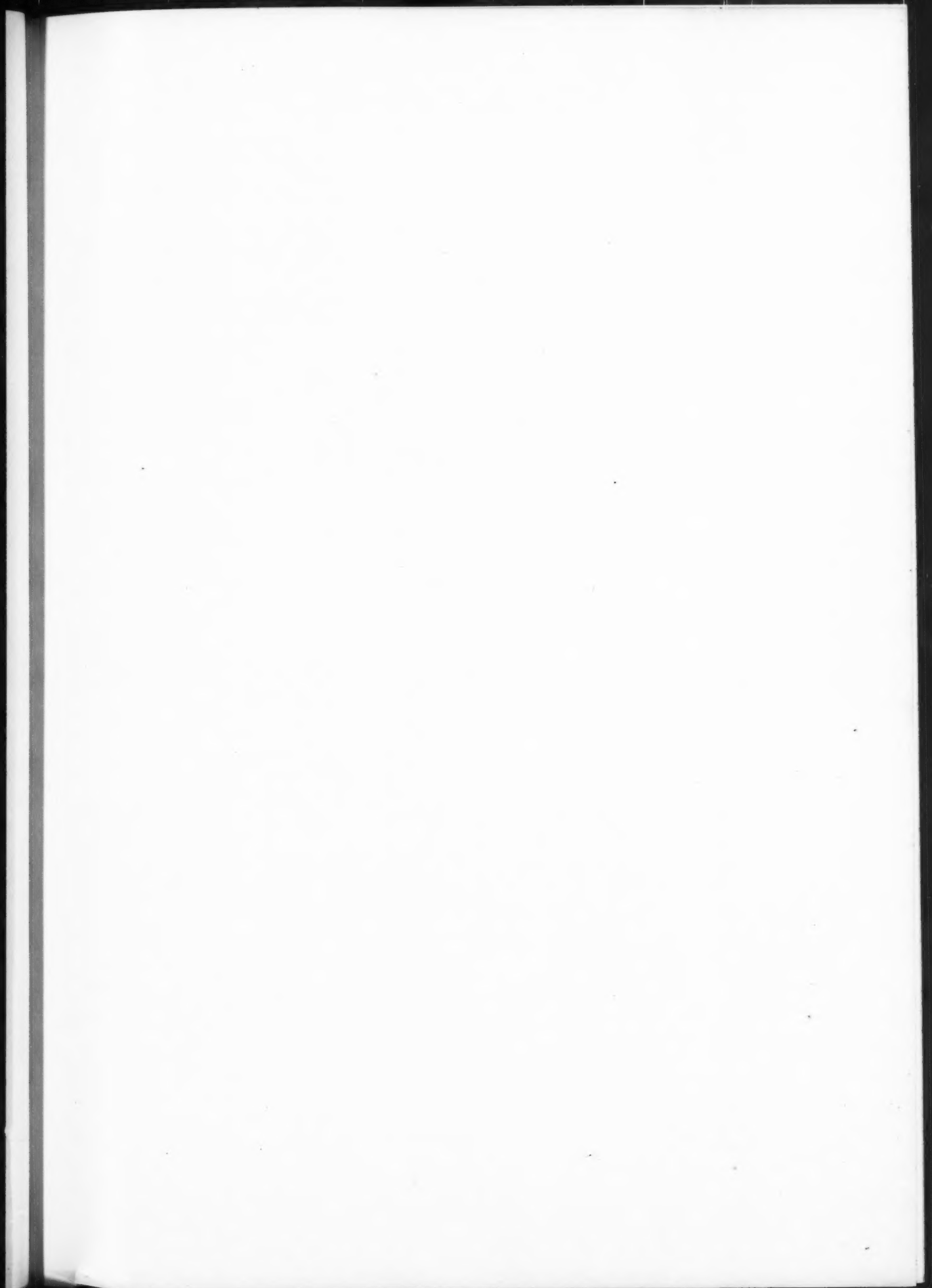


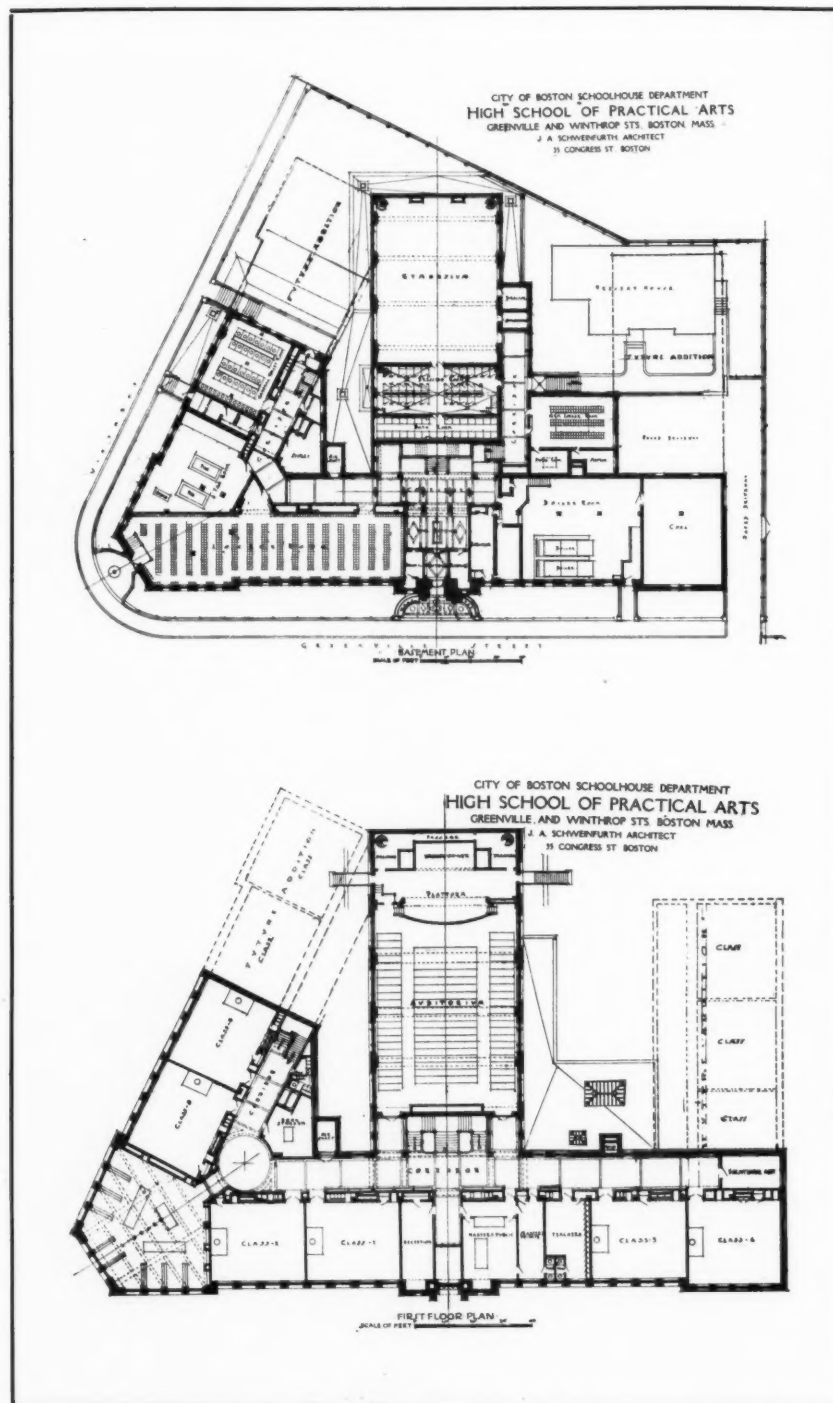
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APRIL 1, 1914

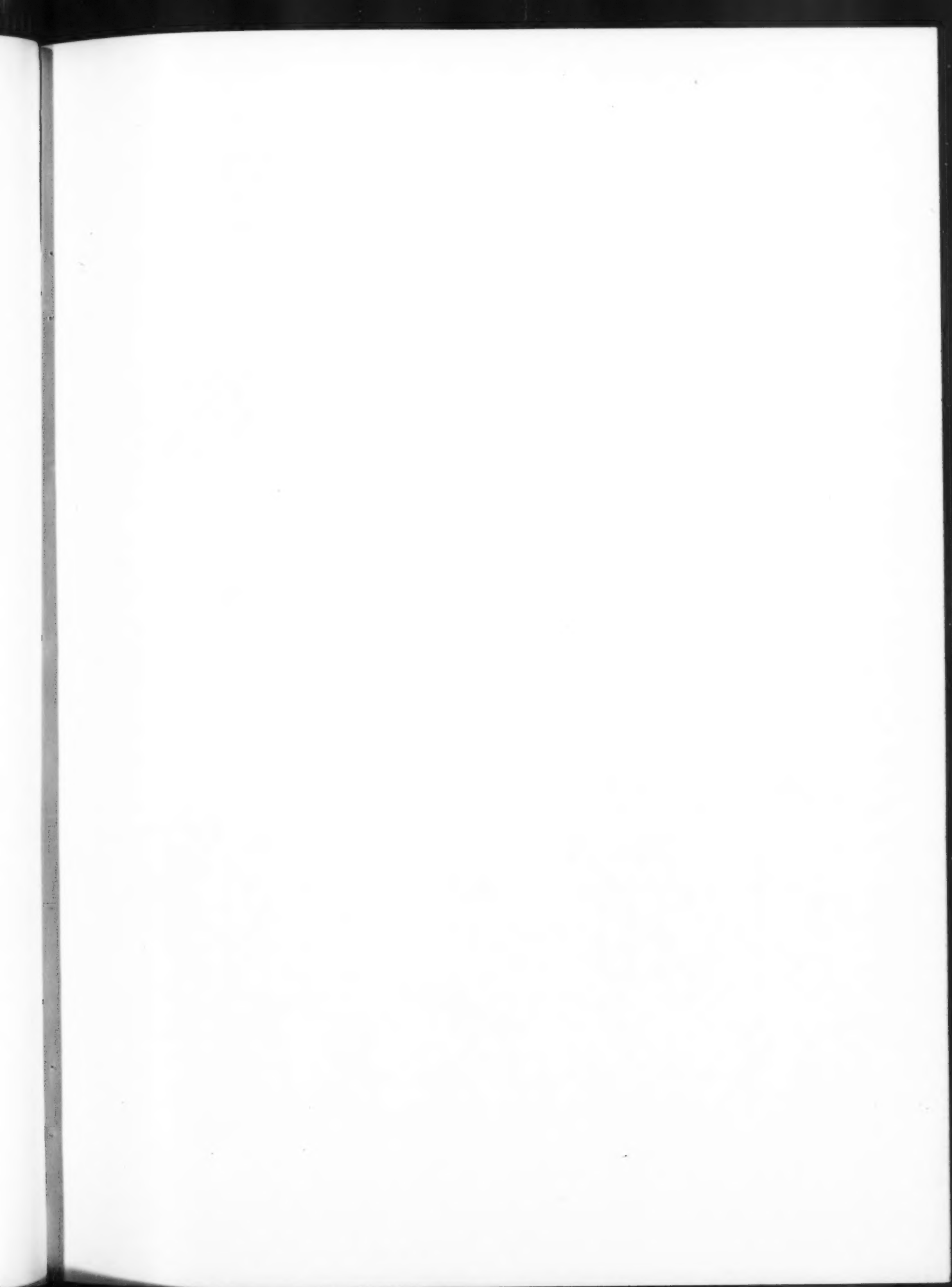


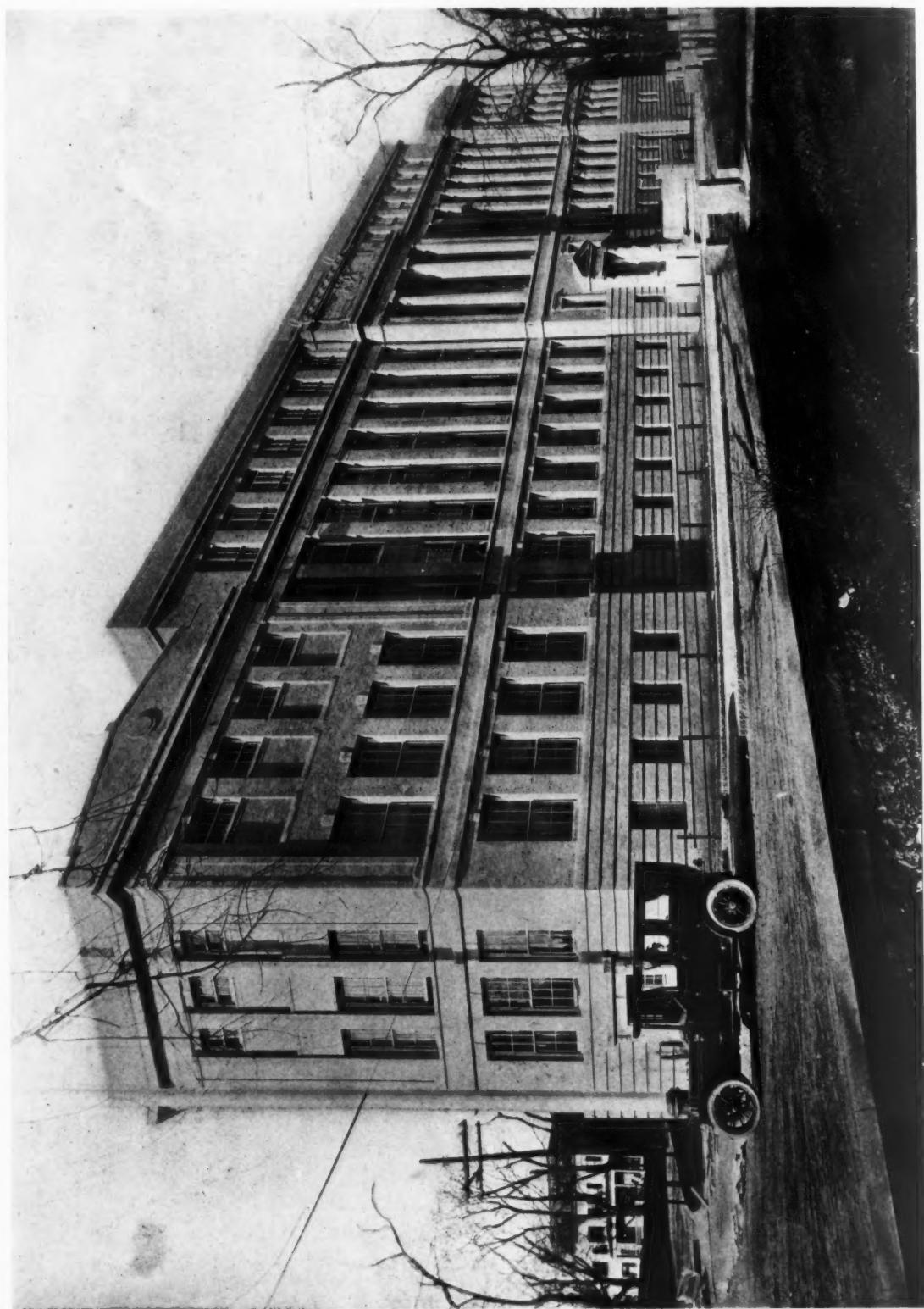




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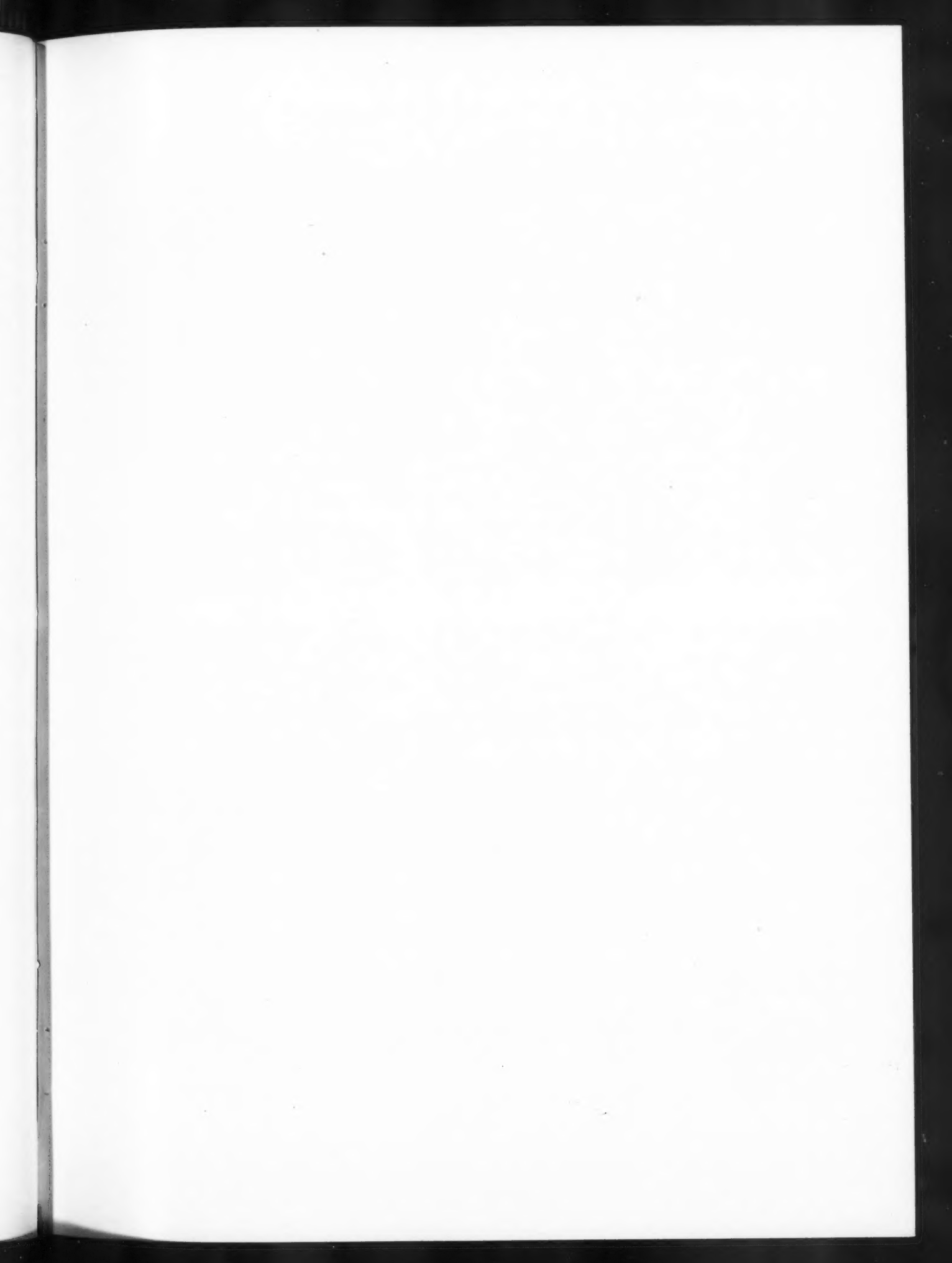
HIGH SCHOOL OF PRACTICAL ARTS, BOSTON, MASS.
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DETAIL FRONT FACADE

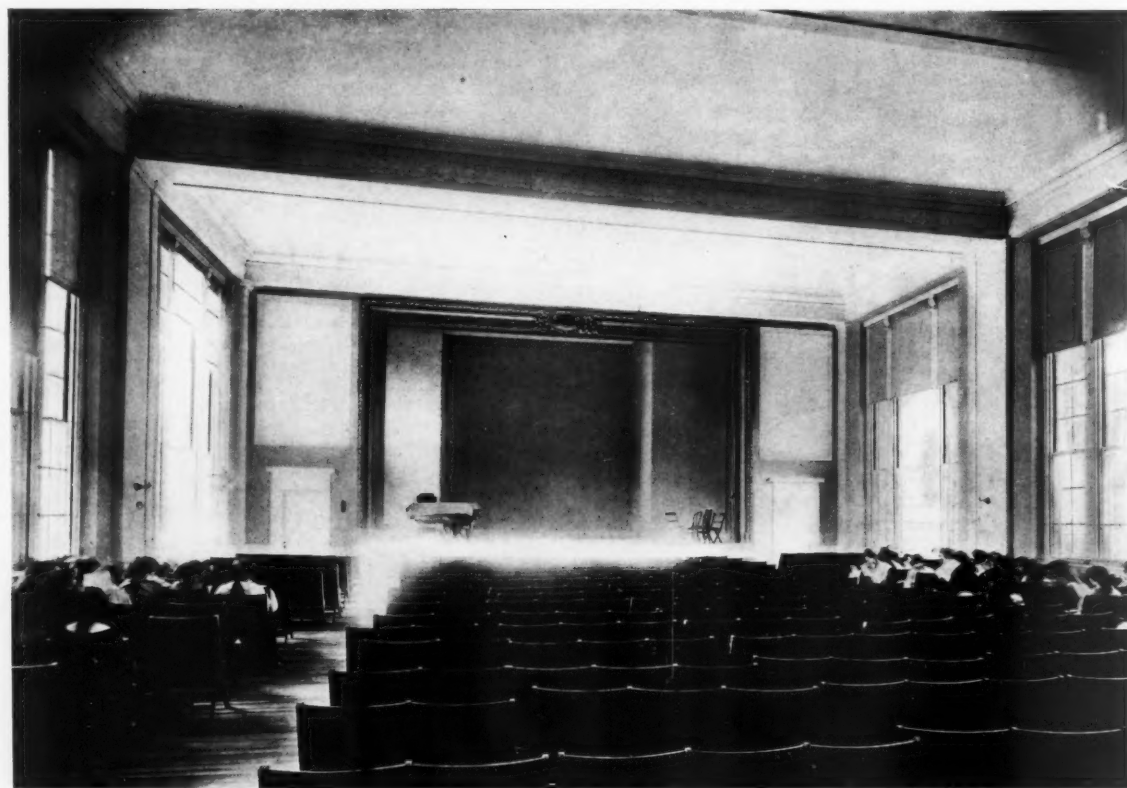
HIGH SCHOOL OF PRACTICAL ARTS, BOSTON, MASS.

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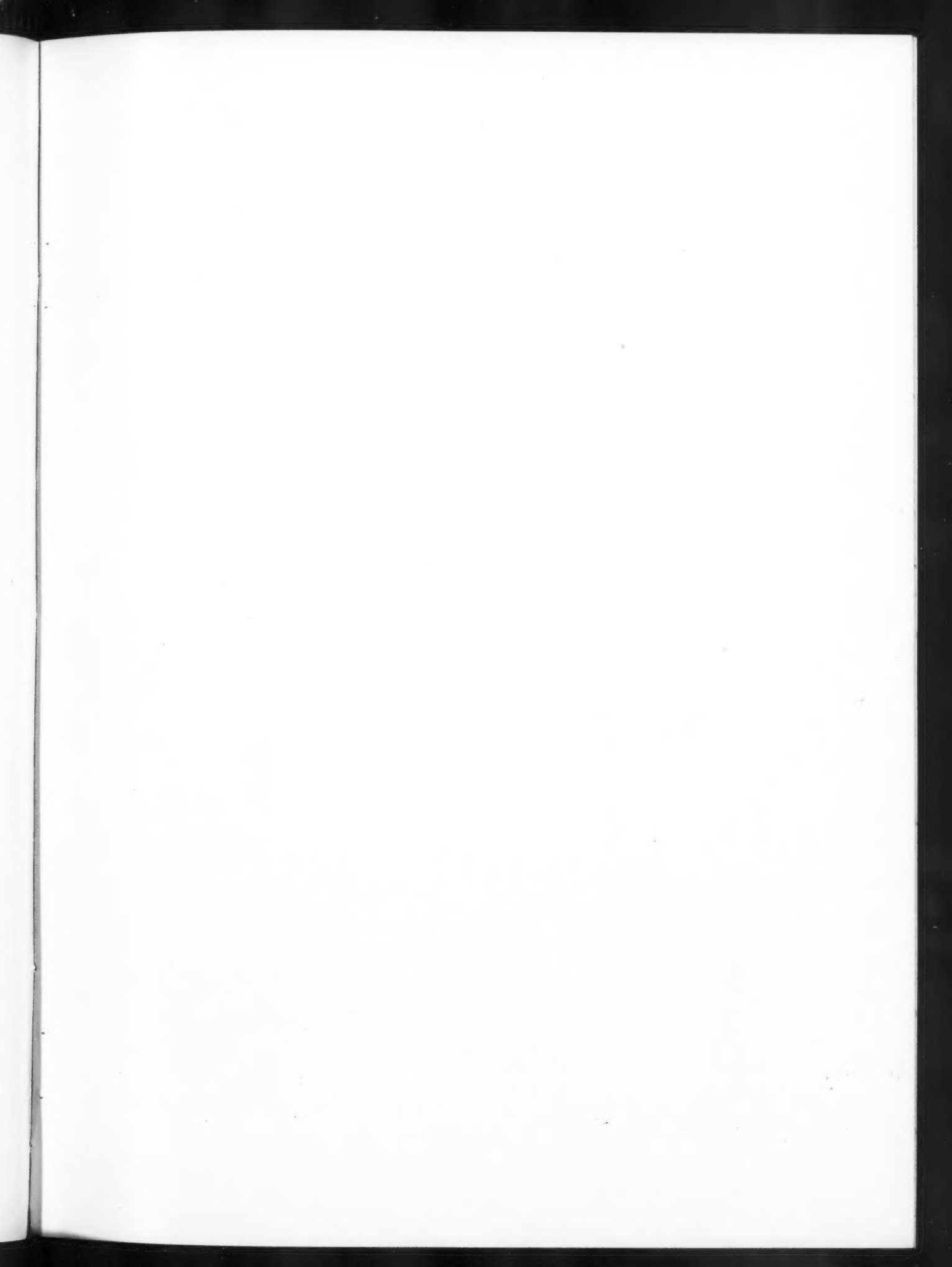
DETAIL OF MAIN ENTRANCE

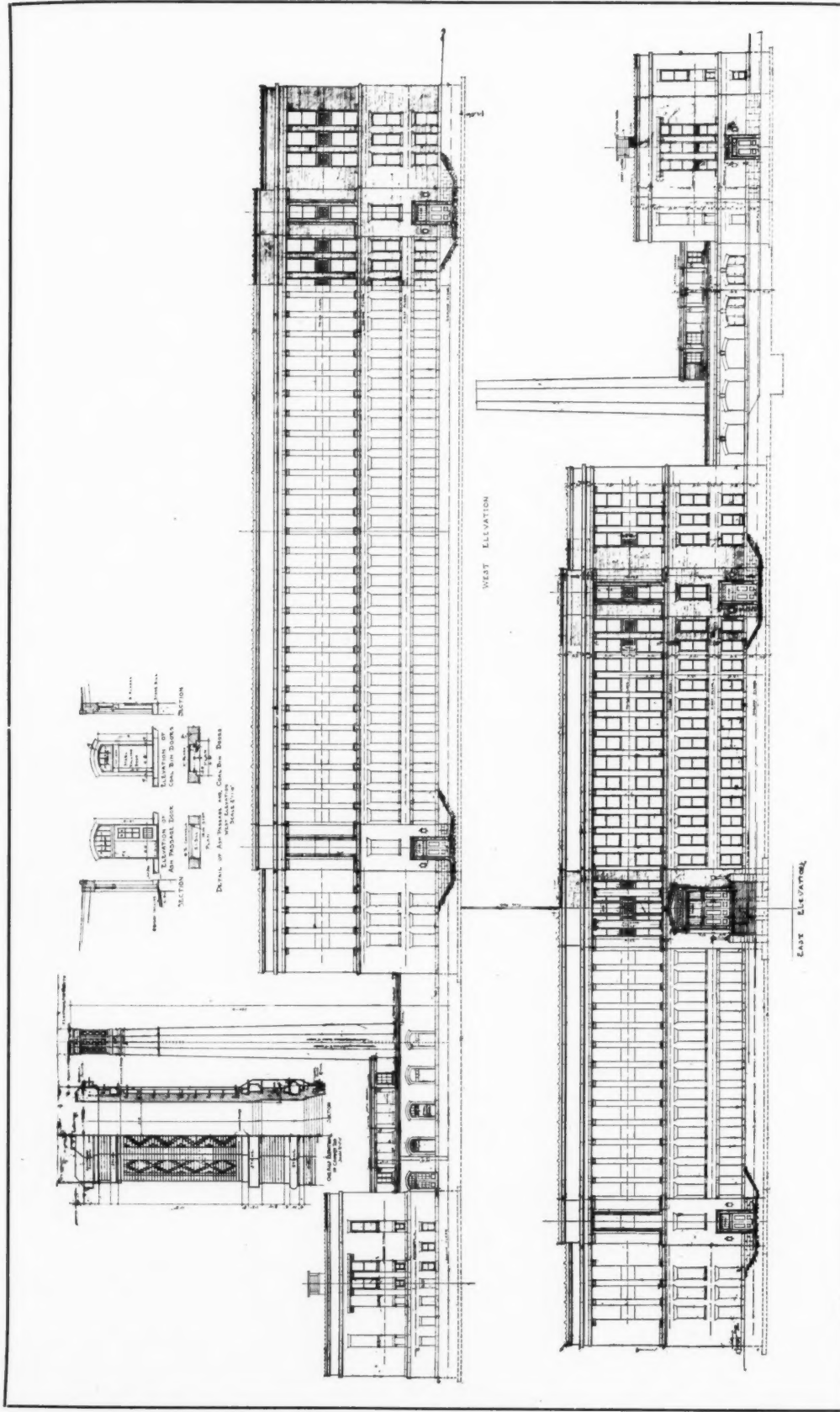


VIEW OF AUDITORIUM

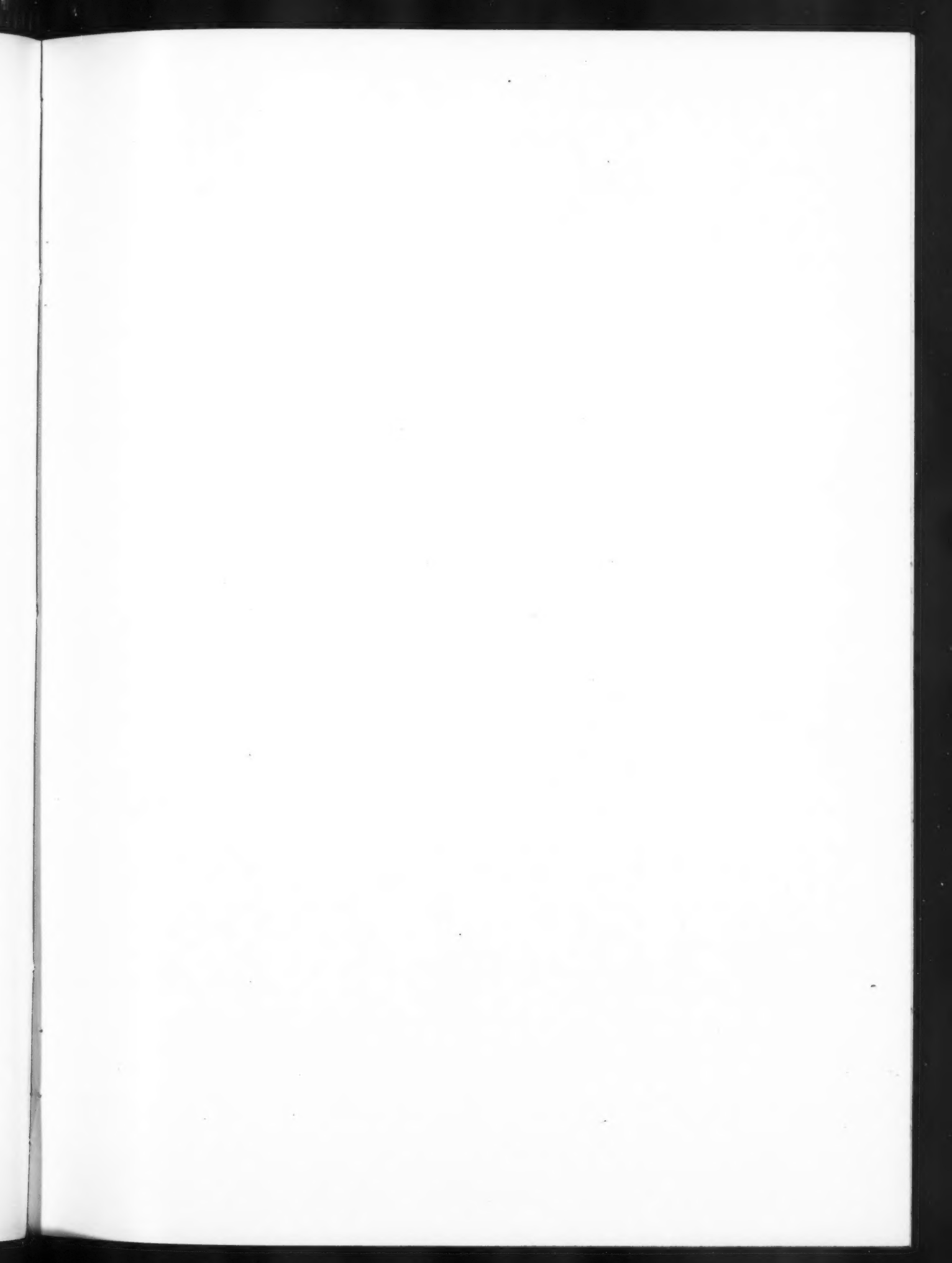
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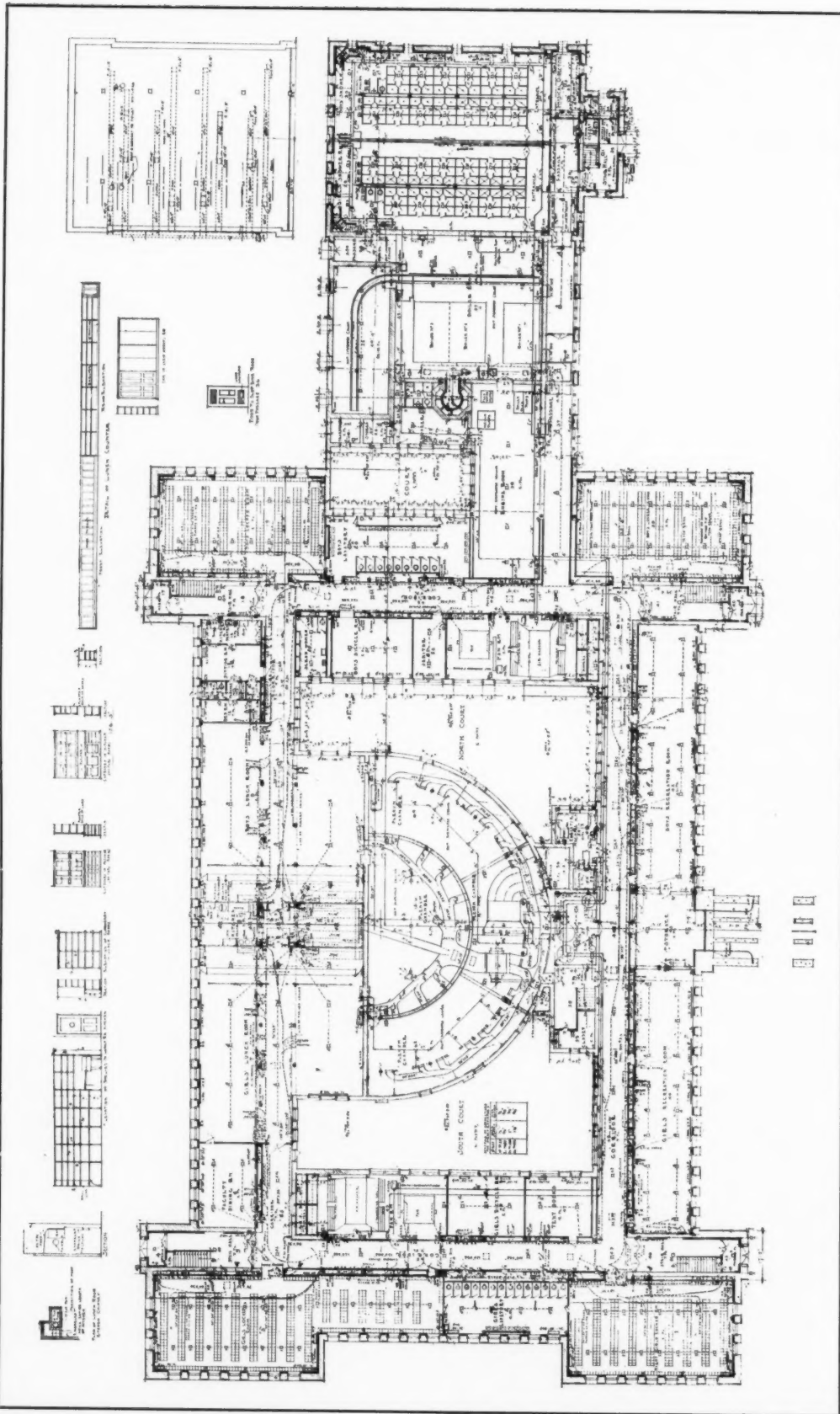
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EAST AND WEST ELEVATIONS
SOUTH PARK HIGH SCHOOL, BUFFALO, N. Y.
MESSRS. GREEN & WICKS, ARCHITECTS

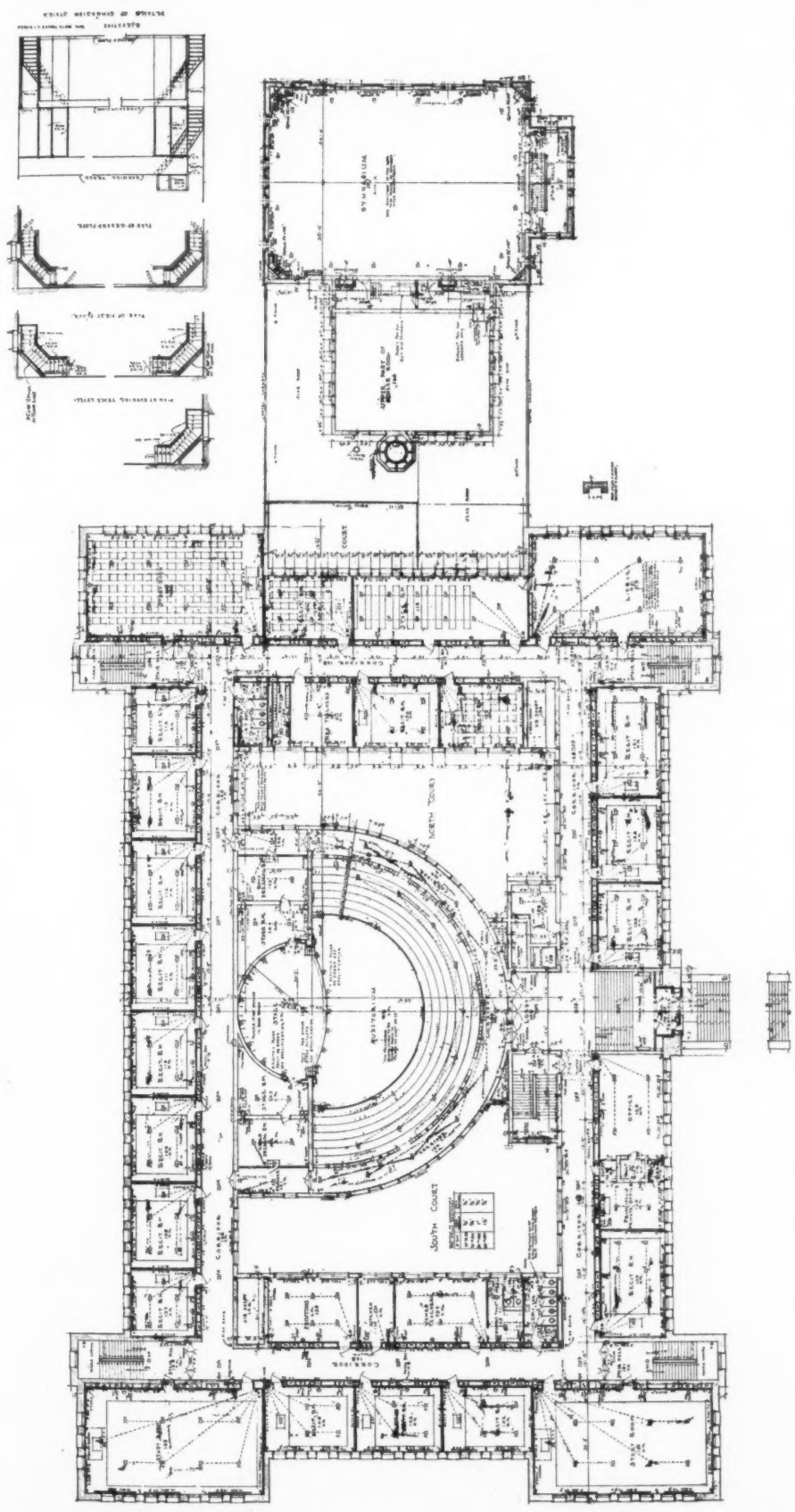




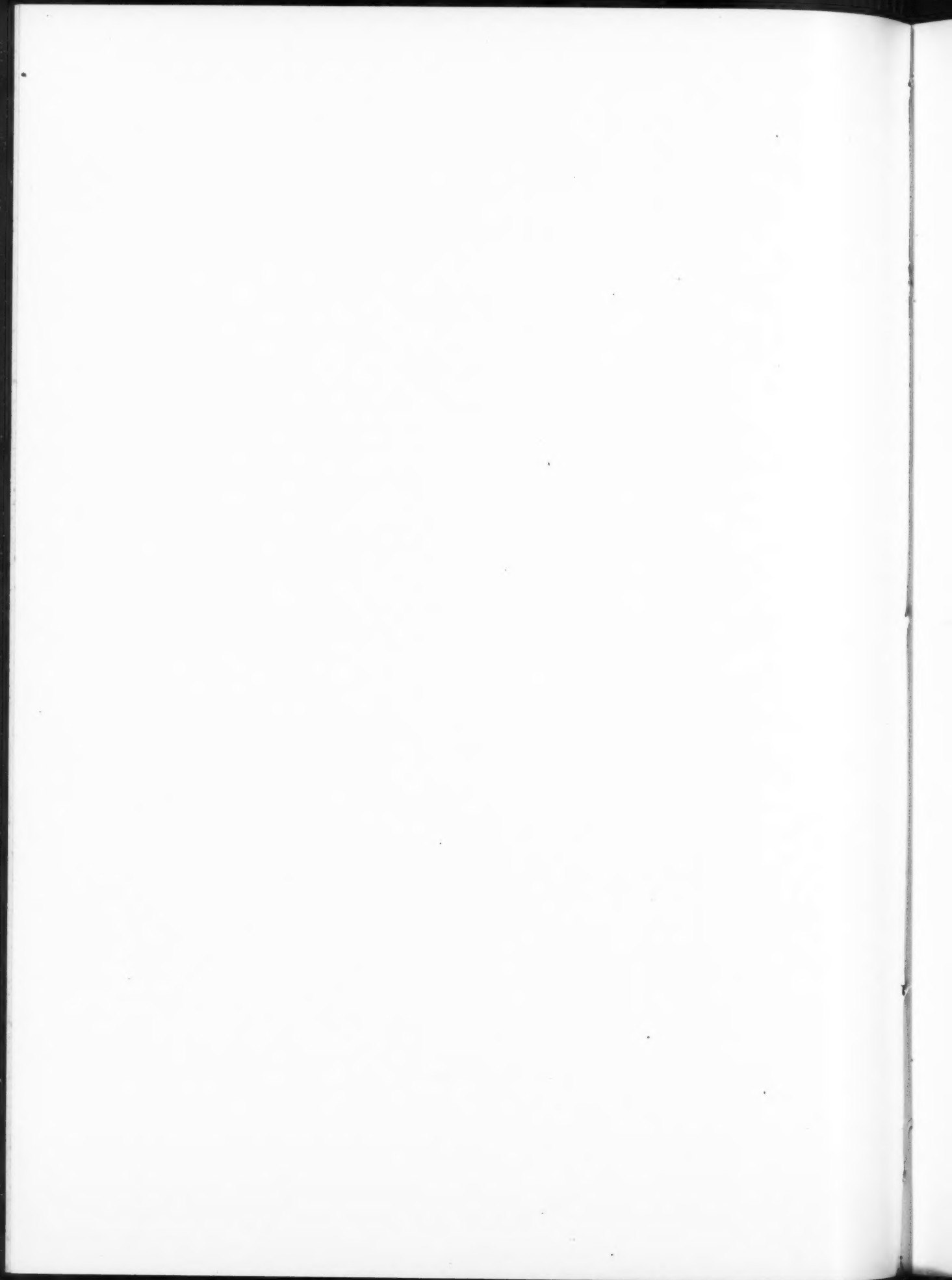
GROUND FLOOR PLAN

SOUTH PARK HIGH SCHOOL, BUFFALO, N. Y.

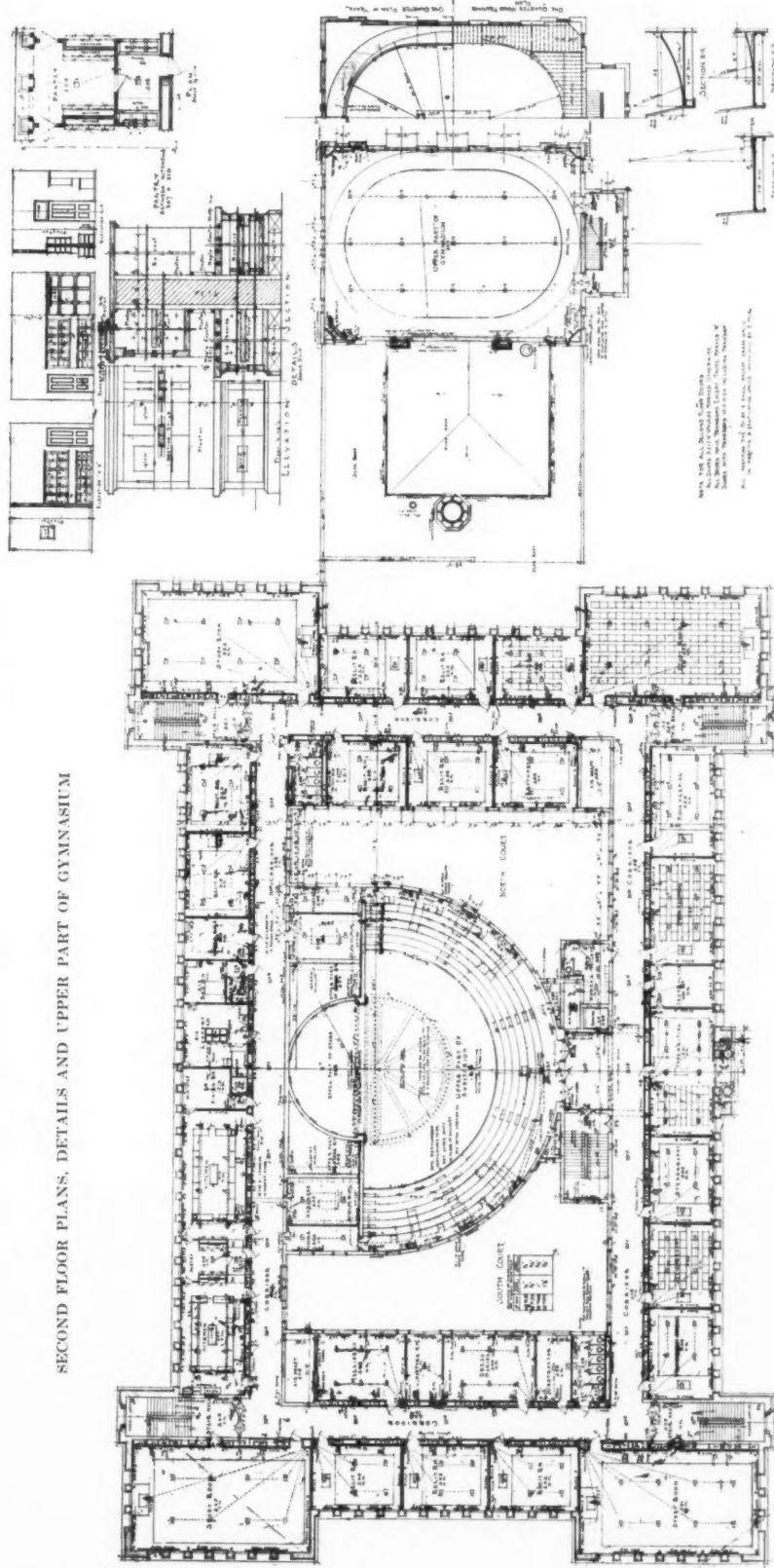
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FIRST FLOOR PLAN
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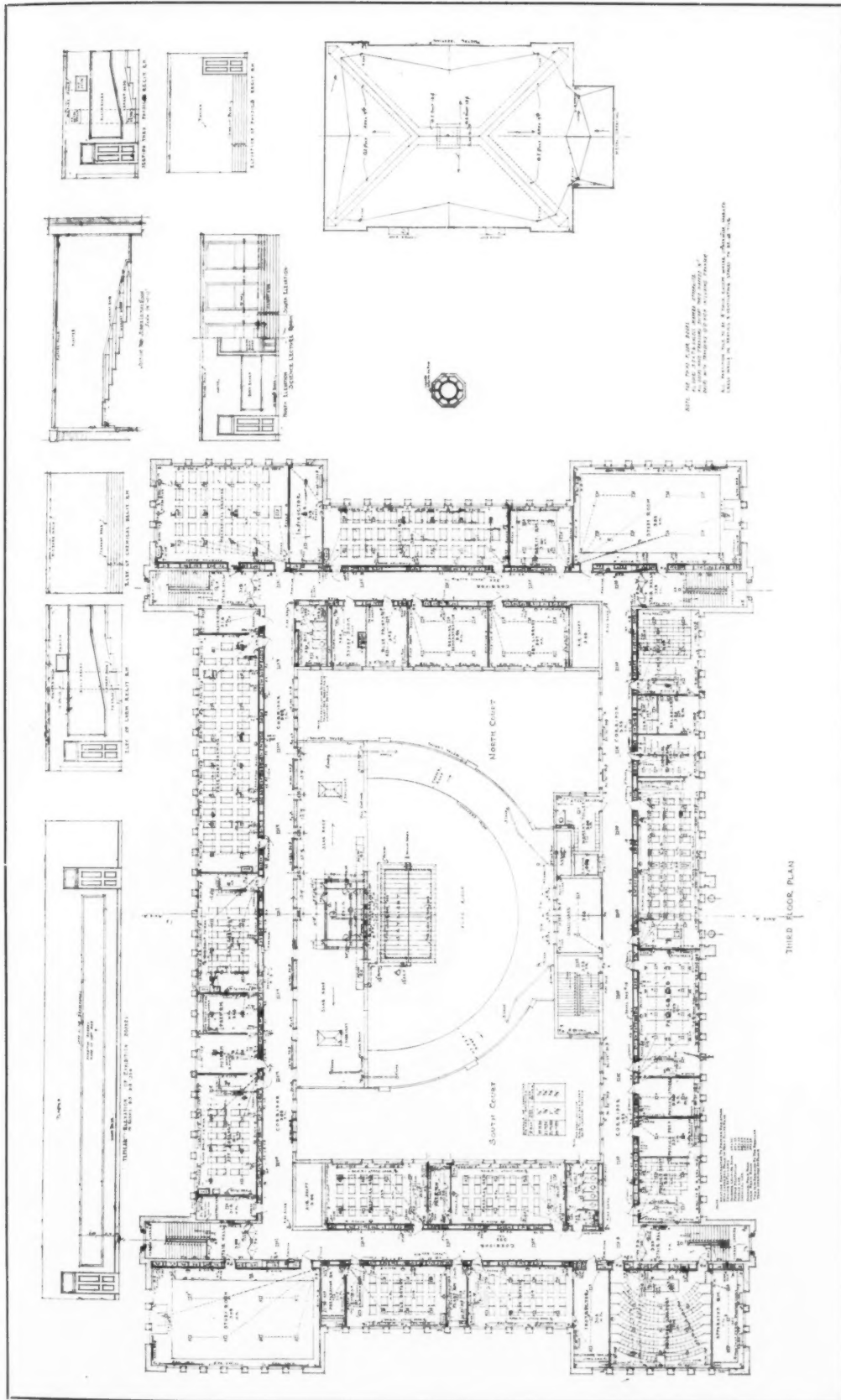


SECOND FLOOR PLANS, DETAILS AND UPPER PART OF GYMNASIUM

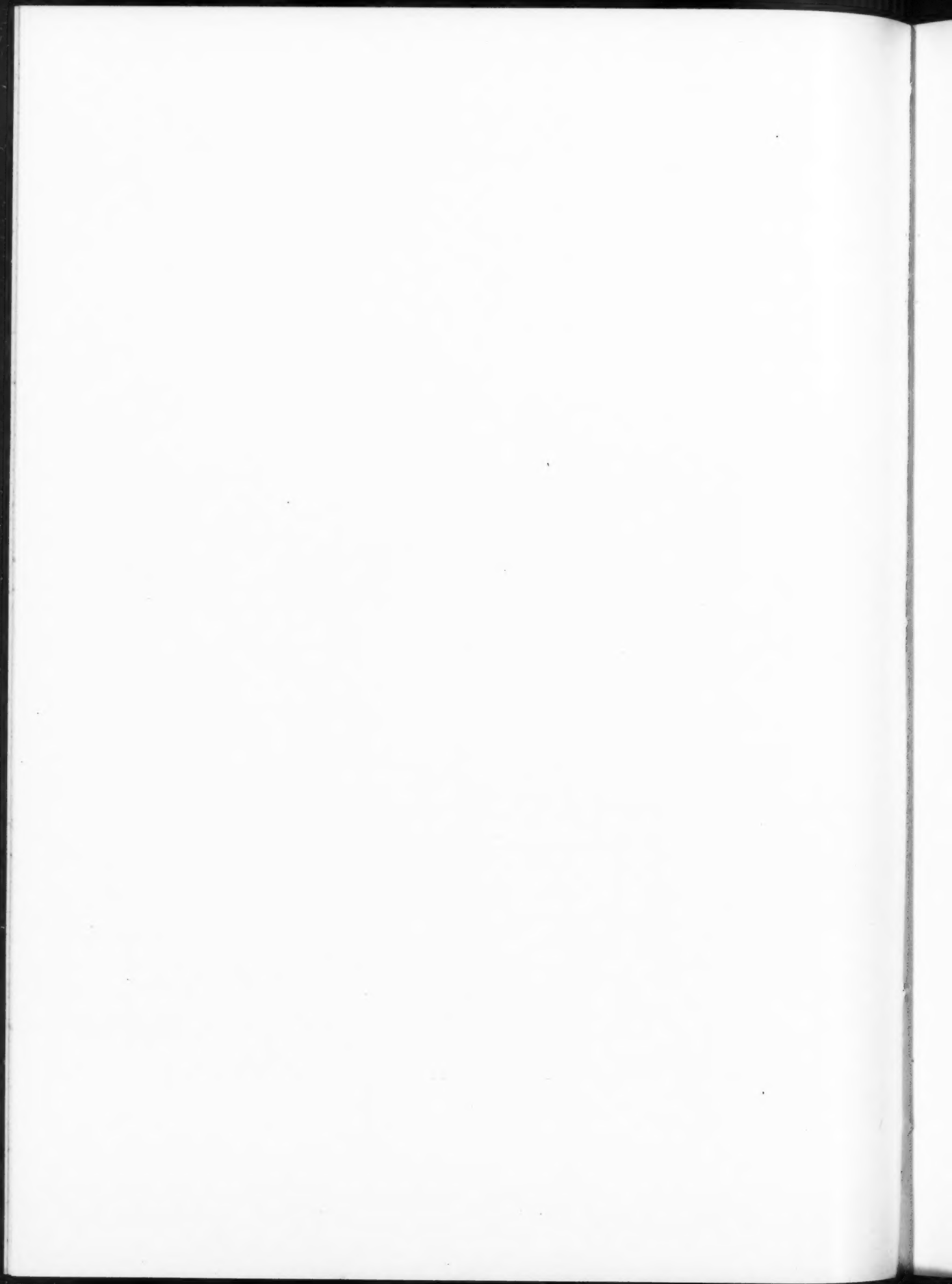


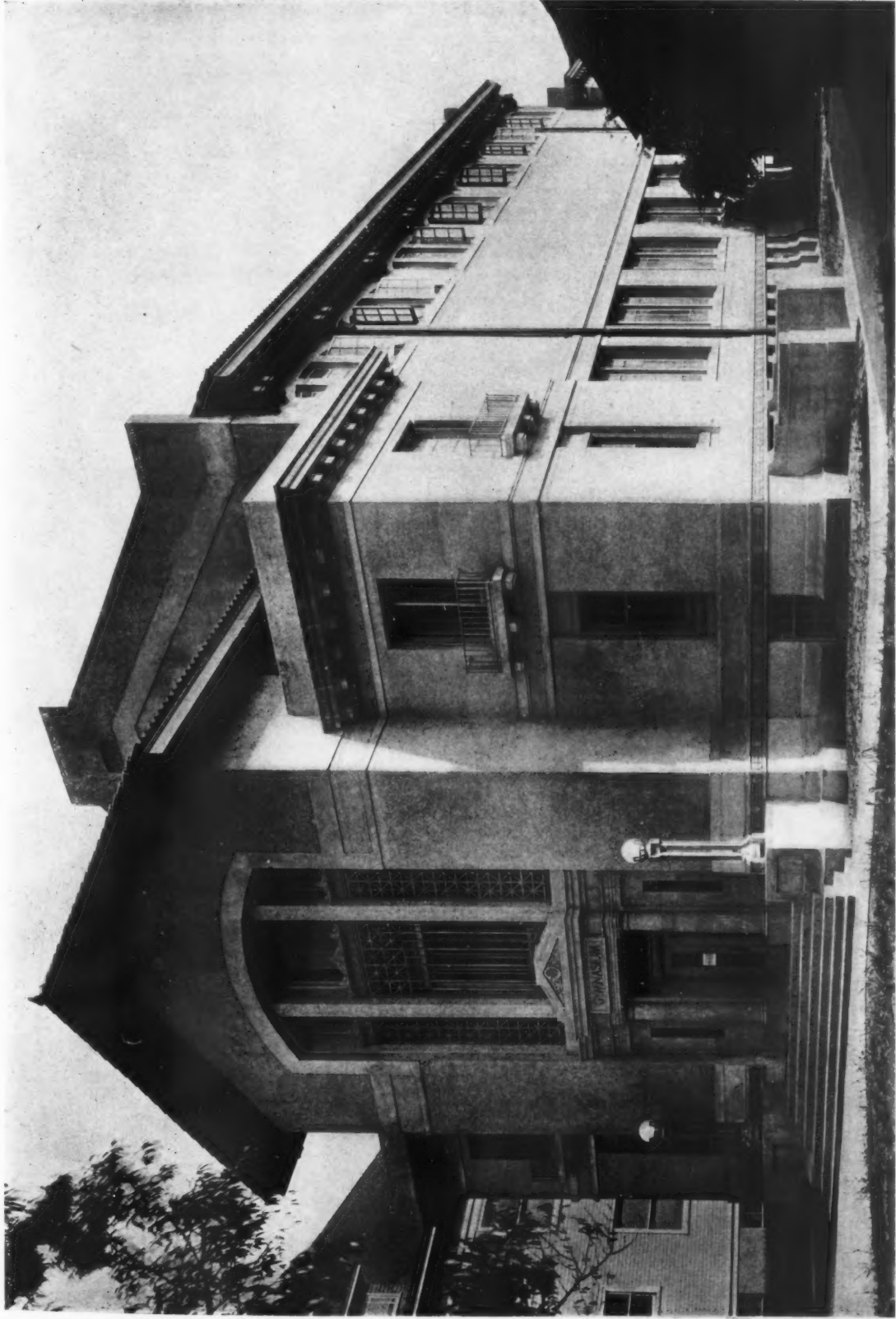
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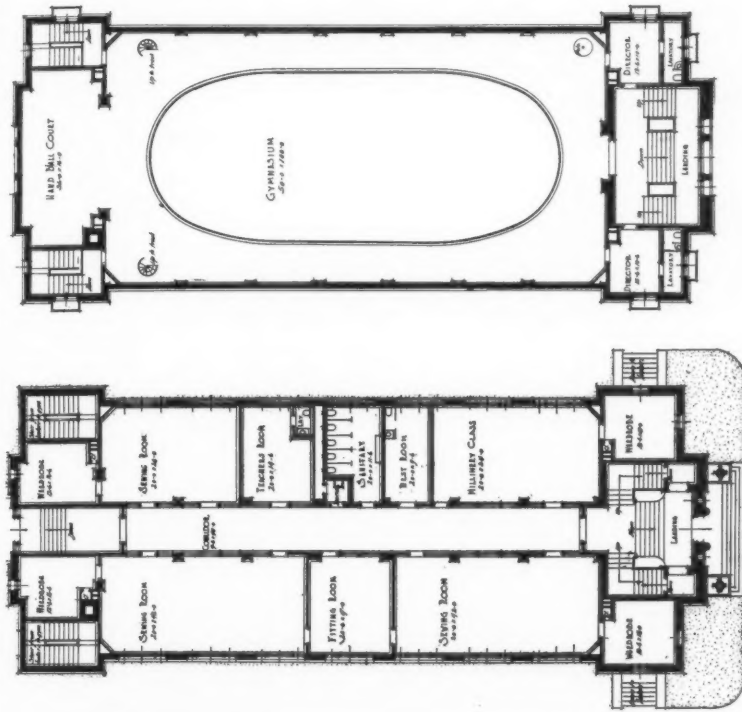
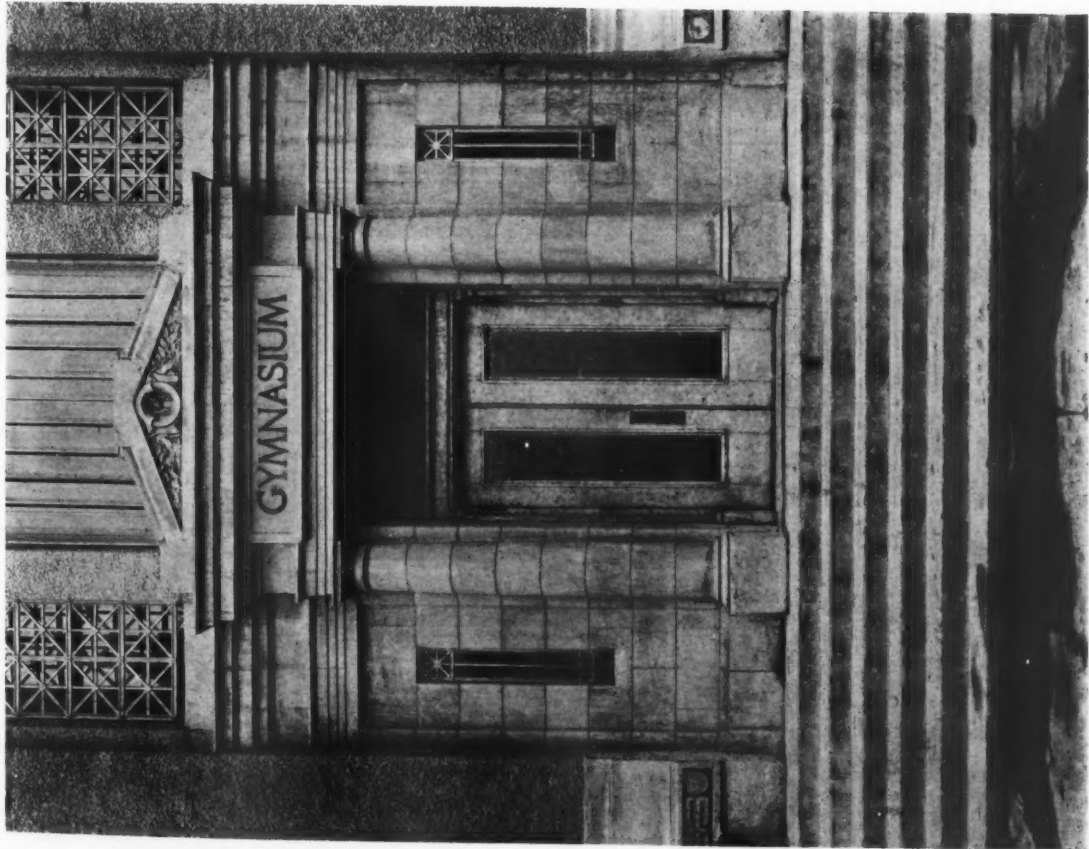


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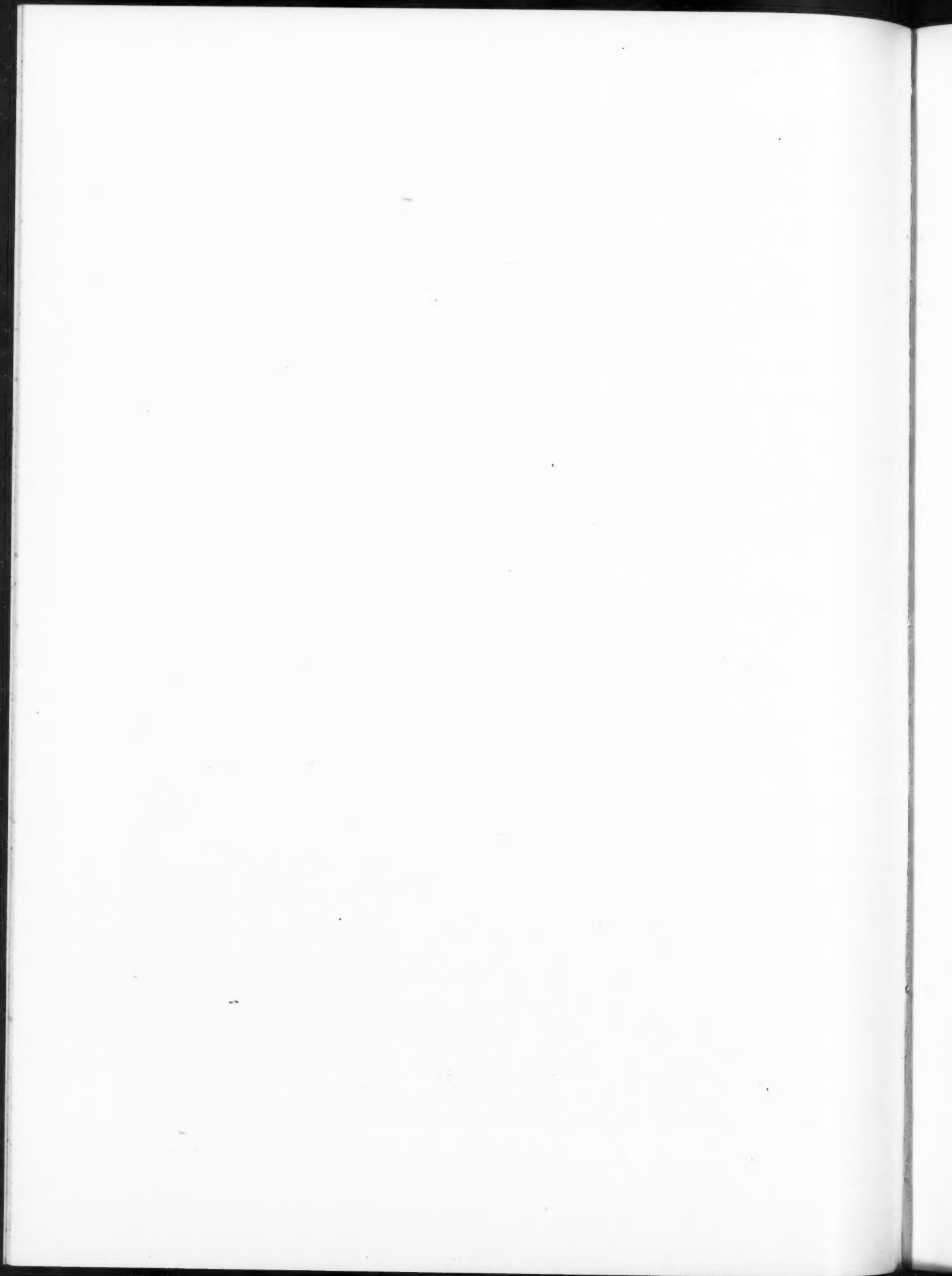


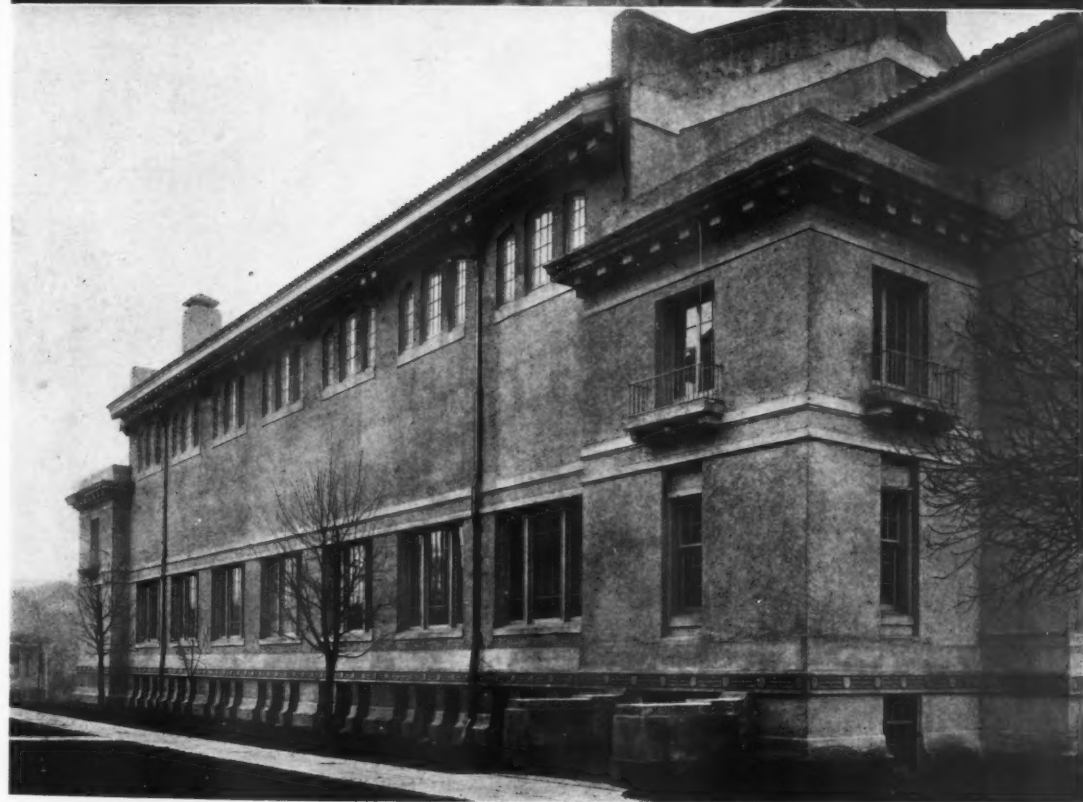
WASHINGTON HIGH SCHOOL GYMNASIUM AND DOMESTIC SCIENCE BUILDING, PORTLAND, ORE.
MR. ELLIS F. LAWRENCE AND MR. WILLIAM G. HOLFORD, ASSOCIATED ARCHITECTS



WASHINGTON HIGH SCHOOL GYMNASIUM
AND DOMESTIC SCIENCE BUILDING,
PORTLAND, ORE.

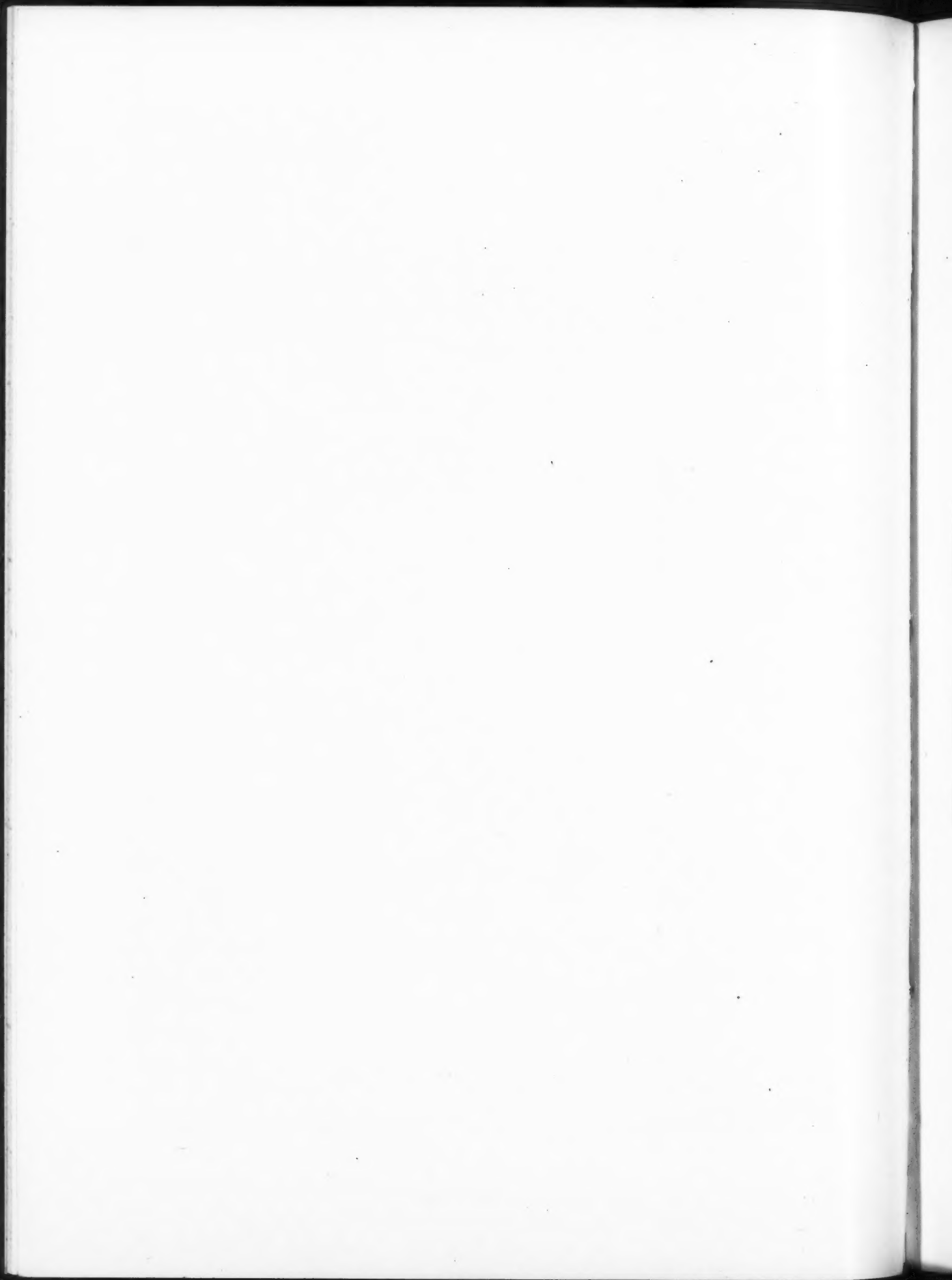
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WASHINGTON HIGH SCHOOL GYMNASIUM AND DOMESTIC SCIENCE BUILDING,
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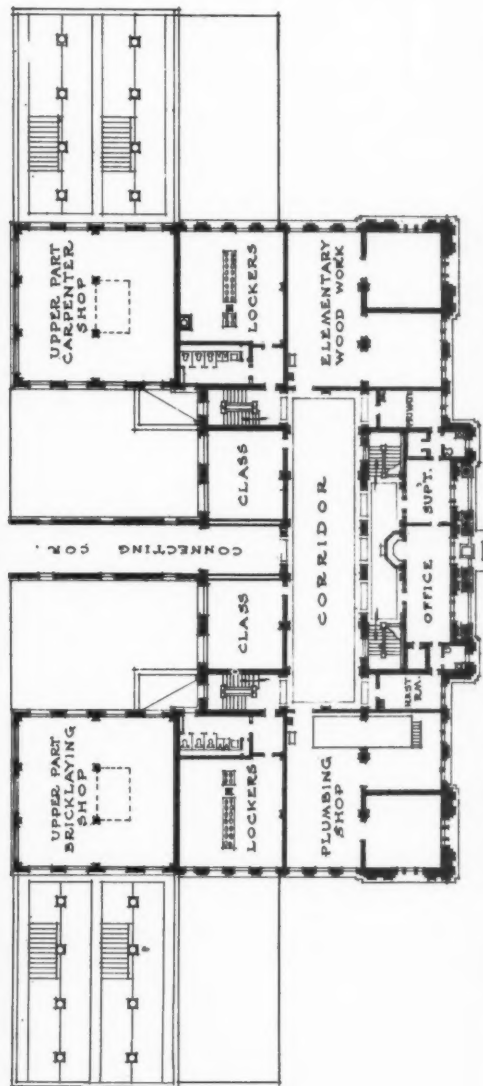
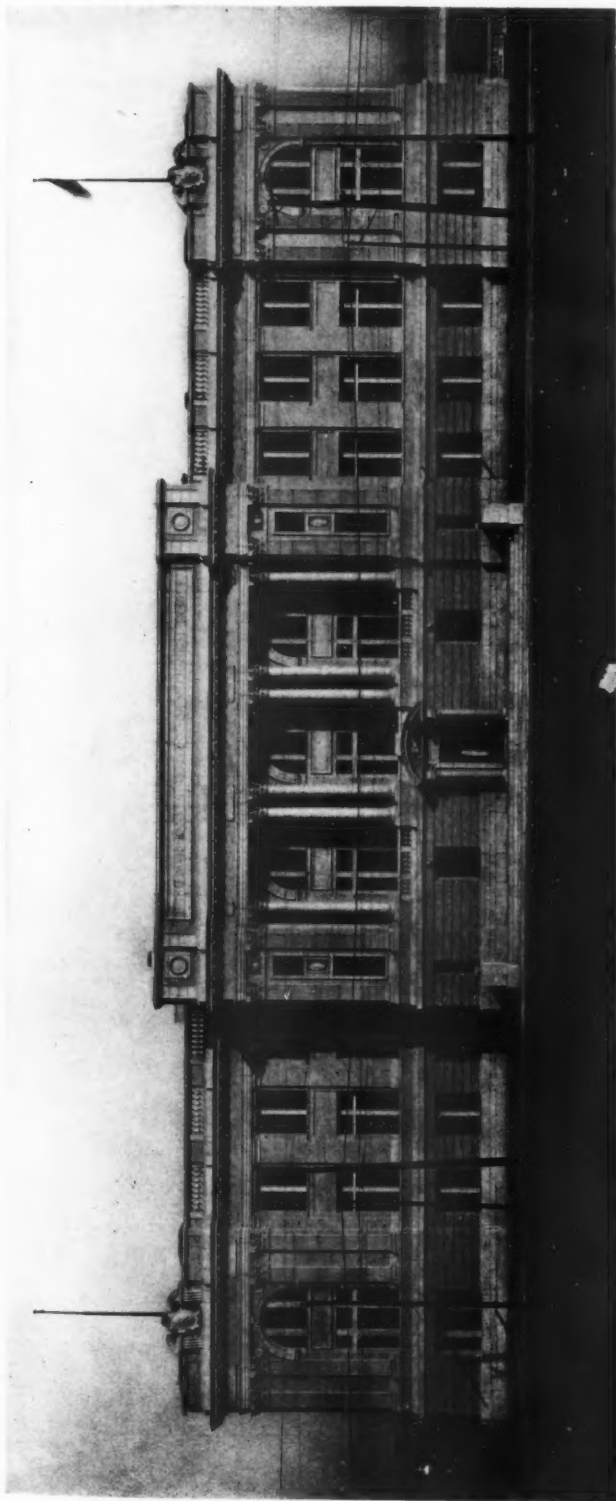
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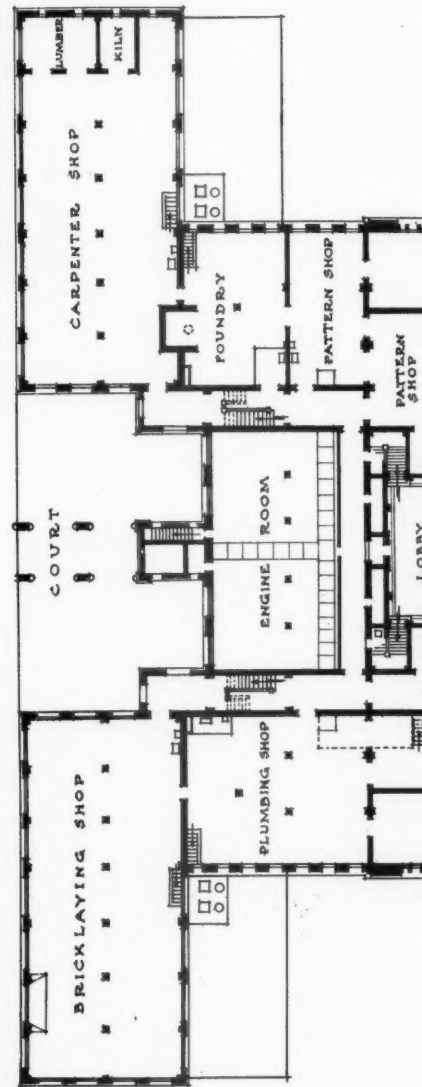
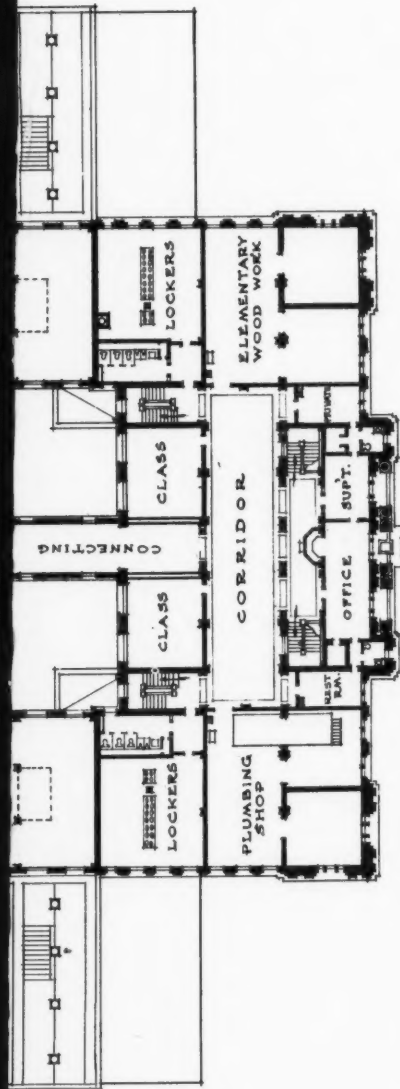


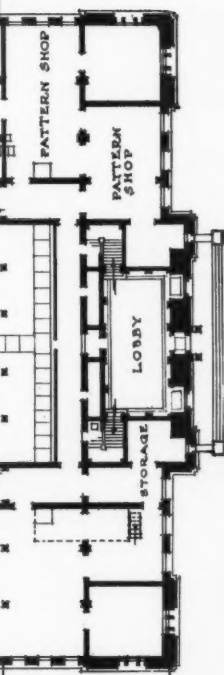
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DAVID RANKEN, JR., SCHOOL OF MECHANICAL TRADES, ST. LOUIS, MO.
MESSRS. EAMES & YOUNG, ARCHITECTS

THE AMERICAN ARCHITECT

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Founded 1876

PUBLISHED EVERY WEDNESDAY BY

THE AMERICAN ARCHITECT (INC.)

No. 50 Union Square, New York
(Fourth Avenue and 17th Street)

G. E. SLY, PRESIDENT

E. J. ROSENCRANS, SECRETARY AND TREASURER

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TEN DOLLARS PER YEAR, POSTAGE PAID
ALL OTHER COUNTRIES . . \$12.00 PER YEAR
SINGLE COPIES (Regular Issues), 25 CENTS

CHICAGO OFFICE, Hearst Building
Page A. Robinson, *Western Manager*

Entered at the Post-office, New York, as Second-class Matter

VOL. CV

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MURAL PAINTING IN THE SCHOOLS

One of the chief deficiencies in the product of our admittedly excellent public school system is a lack of artistic appreciation, of a capacity for enjoying art, as expressed in painting and sculpture, for its own sake. With the present emphasis on "vocational education"—which in the last analysis may be considered a training to enable the student to more readily acquire food and shelter—many believe we are tending toward a period of materialism which should be supplemented to a greater extent than heretofore, by a development of the aesthetic. It is an undoubted fact that even the artist must have food and clothing but he usually claims that these are incidents of life and not its only or even its most worthy objects.

To encourage in the public school children of New York City an appreciation of the fine arts, the Municipal Art Society has undertaken as one of its services to the city, the decoration of the walls of the Washington Irving High School with paintings and sculpture. Working in friendly collaboration with the Board of Education, it has laid out a comprehensive scheme of decoration and is now bending every

effort toward its successful realization. The subjects chosen for the decorations are from the works of Washington Irving, which present a wide and interesting field of choice, quite adequate for all of the paintings that may be offered. Fortunately in this newest and largest girls' high school the wall surfaces offer a good opportunity for the proposed decorations, and the great number of students who will daily see the paintings can hardly fail to derive pleasure and benefit from the constant, intimate association with them.

Certainly school days are the impressionable ones, and at that period the child will gain, by suggestion, what in maturity can scarcely be acquired even by close application. If, like a good friend, the love of the artistic can become actually a part of one's life, from childhood, the ultimate satisfaction will be far greater than if it is an incidental later acquirement to be used or forgotten as the fancy may direct.

The value of the paintings to the pupils will be largely in proportion to their understanding of them, and it is to be hoped that they will be occasionally discussed as works of art by teacher and student. If this is not done there is danger that mere association may breed partial indifference to their true value and the purpose of the work be thwarted.

The inception of this program of school building decoration indicates a new era of art as an educational influence. It is hoped that the example of the decoration of Washington Irving High School will be followed by others, in this and other cities, until adornment of school buildings by mural paintings and sculpture will become a customary part of their construction, to be undertaken either by the school boards or by responsible societies working in collaboration with them.

WORK OF A NEW JERSEY CITY PLAN COMMISSION

An enlightened enthusiasm is the keynote of the Newark, N. J., City Plan Commission's work, as presented in the report recently issued by that body.

The duties with which the Commission was charged upon its appointment by the

THE AMERICAN ARCHITECT

mayor, June 1st, 1911, have been interpreted in a very broad sense,—not as embodying merely the preparation of a more or less ornate map based upon a superficial study of the city's problem but as involving first of all a very thorough investigation of industrial, commercial, and residential development in the past and an intelligent anticipation of probable future growth. It is an evidence of responsibility toward the city of the future, that such a committee, assisted by two advisers and an engineer expert in civic problems, should be willing to spend three years or more in the collection and study of data before feeling competent to formulate, in any considerable detail, a plan for the development of the entire city.

A summary of the findings of the commission to the opening of the present year, with its recommendations for specific improvements and an outline of its future studies, is contained in a well-edited book of nearly two hundred pages accompanied with maps. Among the subjects discussed with a good degree of optimism for their present condition are the city sewer system, water supply, death rate, wages for skilled and unskilled labor, rents of homes for all classes, prices of land for business and residential purposes, the cost of water, gas, and electricity, and the fact that many great railroads cross the city.

The report calls attention to several features of a city street system the significance of which is not always realized. Certainly the arteries of a city's transportation exert the greatest influence on its character, representing as they do from 25 per cent. to 40 per cent. of the total area; and their general location and relative capacity for traffic determine in large measure the development of building areas. The judicious determination of street widths becomes a very important item in an intensively-used business district, for the greater the space devoted to streets the greater the area over which business must be spread, with a resultant loss of efficiency. In suburban residential districts, the largest number of houses permissible on a given area are often built,

and therefore streets which are unduly wide tend to increase rents, encourage the building of small rooms, and intensify bad housing conditions.

The practice of street standardization is declared by the Newark investigators to have proven unsuccessful in many instances, and the principle in general is thought to be impractical. In New York City there is an ordinance which requires a thirty-foot roadway in all streets sixty feet wide, a forty-two foot roadway in all streets of eighty feet, and a sixty-foot roadway in streets that are one hundred feet or over. Familiarity with conditions existing in various sections of New York City should convince one of the absurdity of such an ordinance. Comparing two streets of equal width, one in the East Side tenement district and the other in the down town wholesalers' section, there will usually be found in the former fifty or more pedestrians to one vehicle, and in the latter almost the reverse proportion though in each case the width of the roadway and the width of the sidewalk are the same.

Another portion of the Commission's report discusses the more important street intersections, public plazas, and approaches to the city and suggestions are made for an attractive architectural treatment of each.

Further chapters treat intimately of the city's problems in harbor development, municipal retail markets, trolley transportation and municipal recreation; and a final chapter tells of the many branches of work as yet untouched or unfinished, some of which the Commission will take up during the ensuing year.

Whatever the problems of special importance existing elsewhere, the comprehensive methods of the Newark Commission should commend themselves to the City Planning Boards of other municipalities. The direction of a city's entire future growth is of sufficient importance from every standpoint to warrant a thorough investigation of conditions both at home and abroad before proceeding with a hastily prepared campaign of dubious value.

THE AMERICAN ARCHITECT

ARCHITECTURAL BRONZE TABLETS

(Continued from page 140)

tablets bearing the name of the Mercantile Safe Deposit Company are prominently displayed on the plinths flanking the entrance steps, and are at the same time made decorative features.

When the business being transacted within can be indicated by some decorative design or device on the exterior there is given an additional element of interest. An example of this kind, most familiar to the impecunious, is the sign of the three balls adopted from the arms of the Medici family, the prosperous bankers of Florence. Following the same idea, a New York linen store, in addition to the usual inscription on its tablet, has appropriately symbolized its business by the representation of a spinning-wheel in low-relief. This evidence of careful craftsmanship imparts to this panel an interest which in some measure atones for its lack of architectural character.

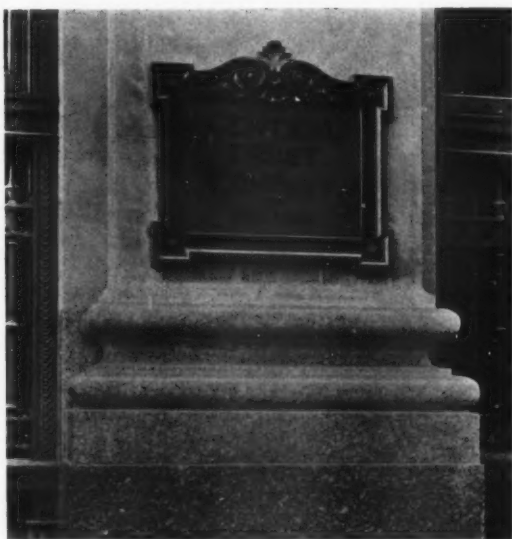


A SCULPTURED STONE FRAME ENCLOSING BRONZE PANEL

SCHEME FOR REPLANNING OF ATHENS

A scheme for the replanning of Athens is projected, and the King and Queen of Greece have entrusted the preparation of the plans to Mr. Thomas H. Mawson, Hon. A.R.I. B.A. For some time Mr. Mawson has been engaged in rearranging the gardens around the Royal Palace and those around the Palace of the Crown Prince between the Stadium Gate and the old Lyceum, and has thus been brought into close contact with King Constantine and the Queen. It is their admiration of his work that has resulted in his being commissioned to prepare plans for rearranging the city both north and south of the

Acropolis. A leading feature will be a central railway station with a wide approach, and a plaza, from which boulevards will radiate diagonally. One of these last will have the Temple of Theseus as a focal point.—*Architectural Review*



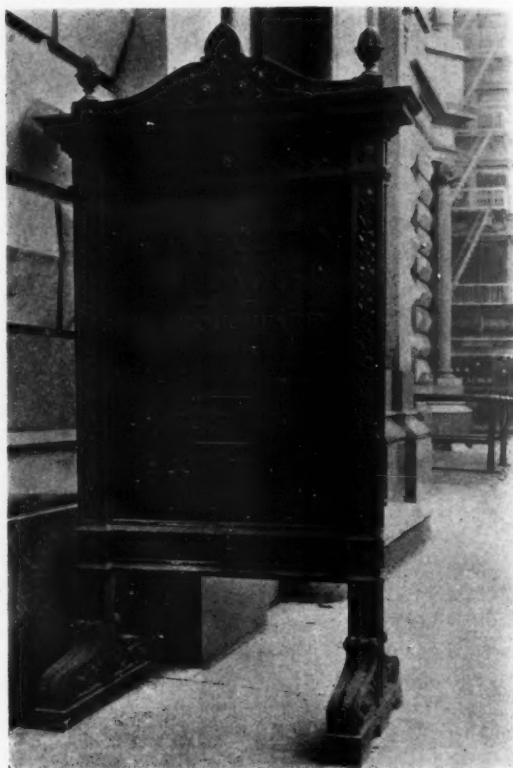
AN ARCHITECTURAL BRONZE IN HARMONY WITH ITS POSITION UPON AN IONIC PILASTER



ALTHOUGH NOT ARCHITECTURAL, THE DESIGN IS INTERESTING IN ITS SUGGESTION

THE TOWER OF LONDON, A.D., 1600

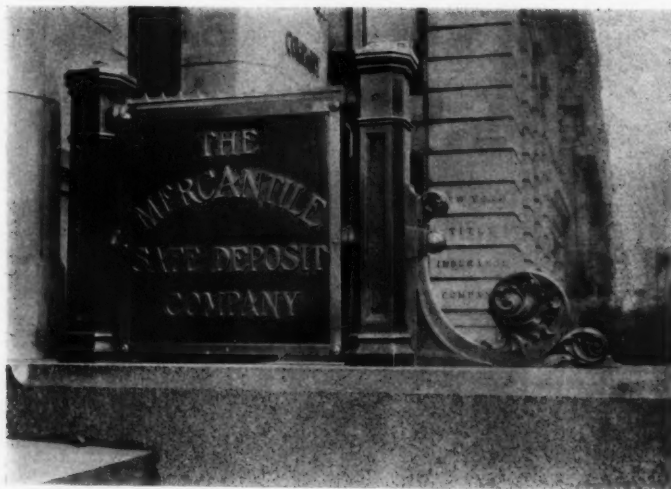
Mr. John B. Thorp's models of Old London are becoming so well known that it is not surprising to find further additions being made from time to time. The new model, which is being presented to the London Museum by Mr. J. G. Joicey, has been built to a scale of one-hundredth full size, and covers an area of nearly 150 square feet. It will be first seen by the public when the Museum is opened in the early spring at its new quarters at Stafford House. The Tower, in the days of the early part of the seventeenth century, was still used as a royal residence; and in the model the various buildings which occupied most of the space between the White Tower and the wall facing the river, and were known as the Queen's Gallery, the Queen's Lodgings, the Jewel House, and the remains of the Great Hall, are all shown; also, of course, the moat, with its stagnant water, is surrounding the outer walls. On the north bank of the moat there still remained a portion of the City wall, with a postern gate, showing how William the Conqueror, by removing a portion of the wall, was able to make his fortress partly within and partly without the City. There is also shown the circular menagerie, which stood just outside the Middle Tower,



BRONZE SIGN AT METROPOLITAN BUILDING, NEW YORK
(See Article, *Architectural Bronze Tablets*)

and was built to cage wild beasts that at various times were presented to royalty; and a cluster of warehouses and Tudor houses standing at the east end of the wharf on the river's edge gives the Tower a picturesque appearance. Now, although the main outline of the Tower is little altered from what it was in the Middle Ages, the smaller buildings have mostly all gone, but in this model of Mr. Thorp's a most excellent idea can be gained of what the grim fortress appeared like hundreds of years ago.

The foregoing account is reprinted from a recent issue of our contemporary *The Builder* of London. It is gratifying to note that fast disappearing landmarks are being so ably perpetuated.



AN EFFECTIVE TABLET MARKING A BANK ENTRANCE
(See Article, *Architectural Bronze Tablets*)

ENGINEERING AND MECHANICAL DEPARTMENT

SOUTH PARK HIGH SCHOOL,
BUFFALO, N. Y.
MESSRS. GREEN & WICKS, ARCHITECTS

PLUMBING WORK

The building will be equipped throughout with all modern conveniences and fixtures, for lavatories, laboratories, experimental and instructive work.

The lavatories for girls are located in the south end of building; those for the boys in the north end of building.

Private lavatories for use of visitors, lavatories for the use of teachers, and the fixtures and plumbing equipment to serve the various laboratories and special rooms will be noted by reference to the plans.

The buildings are equipped with a drinking water system, which consists of an electric water purifier and filter, of a capacity of 200 gallons hourly, a chilled water tank to cool the water by ice stored in the tank, the ice kept entirely separate from the water; and thirty-two bubble drinking fountains, four of which are located at various points in corridors of each of the three class room stories; six each at entrances to the two lunch rooms, and at various other points where essential; the outfit arranged so that a future refrigerating plant can be attached thereto for chilling the water.

The entire water supply for the building is filtered, passing through a building water supply filter, with a capacity of 150 gallons per minute.

Water is supplied to lower stories direct from the pressure in city pipe lines, but water supply for upper stories is supplied from a hydro-pneumatic system in ground story, consisting of suction tank, automatic electric driven pump and compressor tank, capacity of twenty-five gallons per minute.

The general sinks throughout building are of solid porcelain ware white glazed; sinks for laboratory use are of solid white vitreous ware or Alberene stone ware.

Wash trays are solid porcelain white glazed finish.

Wash stands are solid white vitreous ware.

Urinals are solid porcelain white glaze finish of the standing vertical type, with oil regulated flushing valves.

Water closets are solid white vitreous ware, individual bowls, large raised local vent flues.

Shower baths are rain shower heads, with anti-scalding and mixing valves.

Bath tubs are enameled iron roll rim type.

The sewage for plumbing fixtures and storm water is divided into four separate divisions, two of which serve the school building and two serve the boiler building and gymnasium; there is also an acid-proof drainage system, lead lined iron pipe, connecting only with fixtures in laboratories.

An electric driven vacuum cleaner system will be installed in building, capable of using six sweepers or tools at once.

ELECTRIC WORK

The buildings are equipped throughout for electric lighting; semi-direct fixtures will be used in class and recitation rooms.

Gas emergency lights will be provided in corridors and exit stairways.

The power plant will require twenty-four electric motors, with an aggregate of 330 horsepower for operating the heating and ventilating fans, pumps, cleaner, etc.

In addition to lighting work, there are various plug attachments in the class rooms, laboratories, etc., for stereopticon, experimental and instruction work.

The plug attachments in auditorium and science lecture room are designed for moving picture booths.

The instructors' tables in the various chemical and physics laboratories and instructive class rooms are equipped with plug attachments for use of both alternating-current and direct-current systems.

A thirty-five kilowatt motor-generator apparatus will be located in engine room to

THE AMERICAN ARCHITECT

provide the direct-current system for laboratory work, stereopticons, etc.

The entire system for the present will be supplied with electric current from the street service, but provision is made for placing a generating plant in engine room at some future time.

The building is to be equipped with a system of electric time clocks, having master clock and eighty-four secondary clocks, and in connection therewith a school time program system.

An intercommunicating telephone system will be installed, consisting of ninety telephones distributed throughout the various rooms of the building.

A special fire alarm system, consisting of twenty stations, will be installed in the various corridors, etc., for general fire alarm uses, fire drills, etc.

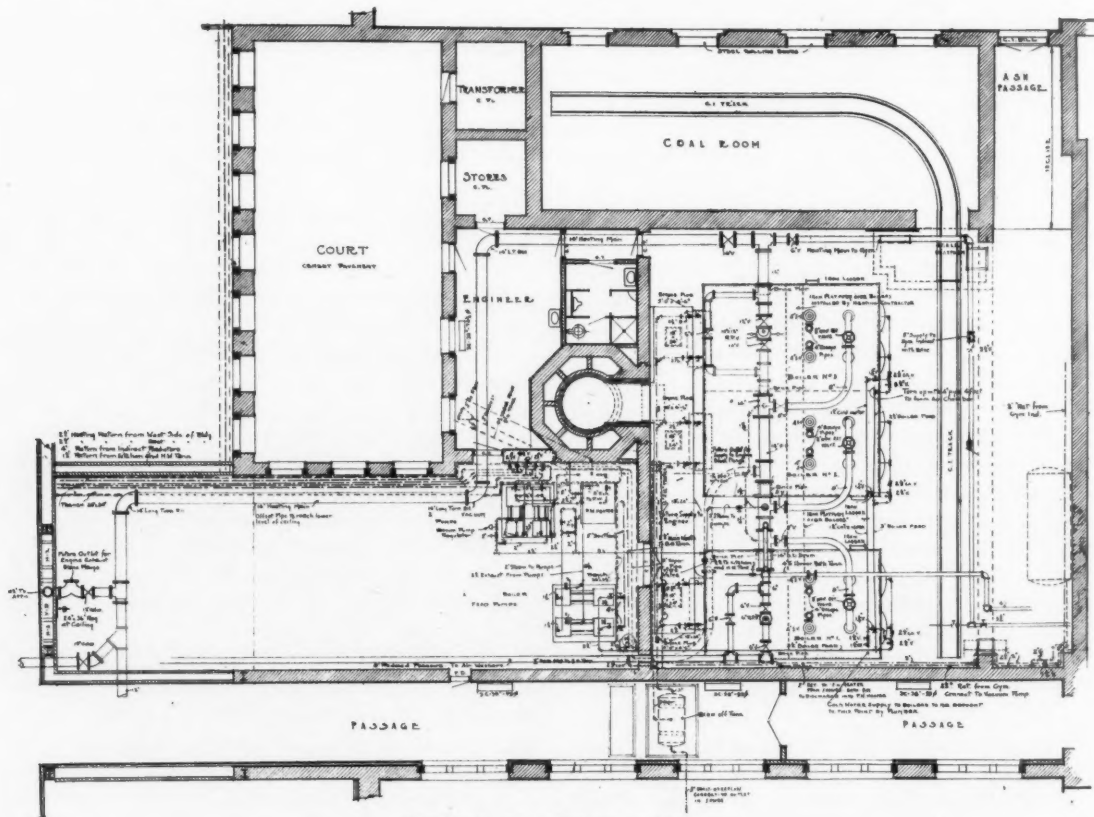
HEATING AND VENTILATING APPARATUS

The building is warmed by direct radiation, using low pressure steam, circulating

at or near atmospheric pressure: Live steam will be taken directly from the boilers and reduced in pressure in passing through reducing valves. The exhaust steam from the vacuum and boiler feed pumps is discharged into the feed water heater, and provision is made for utilizing the engines' exhaust should a complete power plant be installed in the future.

There are three horizontal water tube boilers, placed in a separate boiler house, each of 302 horsepower capacity. While a power plant will not be installed at this time, the required space has been provided, outlets for future connections have been left, and all pipe fittings and valves which may eventually be subjected to high pressure, have been made sufficiently strong to withstand 125 pounds steam pressure.

Coal is brought from the bin to the fronts of the boilers in a four wheel charging car, with drop side, running on a cast-iron plate track, set flush with the floor. A two-ton, double beam, industrial railway scale, hav-



DETAILS OF BOILER ROOM

THE AMERICAN ARCHITECT

ing a platform large enough to receive the car, is installed to weigh the fuel.

The circulation of steam is accelerated by means of a vacuum system. Two pumps are installed, either of sufficient size to take care of the system: these discharge into a combined open feed water heater, purifier and receiving tank. Two boiler feed pumps automatically return the water into the boilers.

The radiators in the class rooms, study rooms, laboratories and other minor offices are generally of the plain, wall pattern, placed in groups, along the outside walls under the windows. Those in the auditorium, gymnasium and in the rooms on the ground floor are the regular cast iron, plain pattern.

The general ventilation system is divided into three separate parts, viz.: the main building, the auditorium, and the gymnasium. Air is supplied to the various rooms and the corridors in the main building by two multivane fans, located in the fan rooms at opposite corners of the ground floor. Each fan is capable of delivering 92,000 cubic feet per minute against a static resistance of one and one-quarter inch water gauge, and is belted to an electric motor. Air is taken from the roof line through a masonry shaft, passes through a tempering coil, an air washer and humidifier, a reheater, and is delivered by the fan to a system of galvanized iron ducts on the ceiling of the corridor. Vertical flues, built of terra cotta blocks, convey the air to the rooms.

At the base of each flue is a sheet metal deflector and volume damper, set to give the proper quantity. The indirect heaters are under thermostatic control and there is an additional device to regulate the temperature of the water in each washer, so as to maintain a constant humidity of the air. It is the intention to deliver the fresh air in the rooms at a temperature of from sixty-five to sixty-eight degrees and a relative humidity of forty-eight per cent.

Vitiated air is withdrawn from the rooms through masonry flues, which are joined together in the attic space into a series of galvanized iron ducts, hung from the roof beams and connected to two motor driven exhaust fans located in pent houses at

opposite corners of the building from the intake shafts.

Fresh air enters the rooms through openings located about nine feet up, and is withdrawn at the floor. Special dampers are placed in the exhaust flues where entering the main ducts in the attic to control the quantity of air removed from each room.

The class rooms, study and other large rooms have special galvanized iron diffusers, with horizontal louvres, placed at the heat inlets, painted to match the walls. The vent outlets are openings left in the flues, the back and sides where exposed to view being plastered and the floors and baseboards carried in and around. This arrangement eliminates dirt pockets. In the case of the small, minor rooms, both the heat and vent openings are covered with grilles.

In the laboratories, lecture rooms, kitchens and laundry, additional registers, operated by cords and pulls, are placed in the vent ducts near the ceiling, for the purpose of quickly removing smoke and objectionable odors and also to act as heat reliefs.

A plenum and exhaust fan are provided for the auditorium, with indirect radiators and air washers similar to the above, but the room is ventilated by the upward system. Fresh air is introduced through mushroom ventilators, placed in the floor under the seats, and the vitiated air passes into the exhaust chamber through openings in the ceiling. The entire space beneath the room forms a plenum chamber.

Air is taken from the roof through a masonry shaft, is forced by the fan into the chamber through a series of discharge ducts and thence into the room. Part of the air is conducted by vertical ducts into the plenum space under the gallery and passes out through the ventilators beneath the gallery seats. A uniform distribution of air to the various parts of the plenum spaces is made possible by a number of dampers and deflectors placed in the discharge ducts.

Two propeller fans, located in a pent house on the roof over the stage withdraw the foul air from the exhaust chamber. A system of exhaust ducts, terminating in registers in the ceiling below the gallery, serve as heat reliefs to cool down this space. The registers are operated by air

THE AMERICAN ARCHITECT

pressure, the control valves being placed conveniently near by.

A moderate quantity of air can be introduced at a very low velocity through gratings placed in the curved baseboard along the back and sides of the stage. This is intended primarily for use when large groups of pupils are seated there. A long narrow grille in the ceiling just back of the proscenium arch permits the removal of the air.

A separate outfit, placed in a special chamber over the boiler room, is used to ventilate the gymnasium building.

There is an exhaust system for the sanitariums, with two fans, one located in each penthouse on the roof. The ventilation is partly through local vent outlets on the toilet fixtures, and partly through register faces placed in the ducts near the ceiling. No fresh air is introduced into any toilet room and therefore there is no tendency to force odors out into the main building when the doors are opened.

Each individual student's table in the various chemical laboratories and certain teachers' demonstration tables are equipped with exhaust pipes, terminating in special hoods. These pipes are run in trenches below the floor, and are collected together into main risers, which are carried overhead in the attic space to a high pressure exhaust fan. Provision is also made for removing the fumes from the five chemical hoods by another fan, which is controlled by a special switch, located conveniently at hand and having a red light, which is automatically turned on when the fan is in operation.

Provisions for ventilation are made according to the following schedule: All class rooms, study rooms, laboratories, etc., have an air supply of thirty-three and one-third cubic feet of air per minute per occupant. The air in the small offices and administration rooms is changed four times an hour. The supply to the auditorium is based on thirty cubic feet per minute for each occupant, and to the gymnasium on sixty feet per minute for each pupil,

assuming that the class will number not over 150. The air is changed in the locker rooms on the ground floor six times per hour, and is withdrawn from the sanitariums at the rate of ten changes per hour.

As stated above, there are three air washers and humidifiers, two having a capacity of 92,000 cubic feet of air per minute and one of 40,500 feet. They are made of galvanized iron throughout and of such dimensions that the velocity of air passing through shall not exceed 500 feet per minute. The pumps which circulate the water are driven by electric motors. Besides guaranteeing that the apparatus will remove entirely all entrained water and free moisture and ninety-eight per cent. of all solid matter contained in the entering air, the contractor must guarantee that it will maintain at a predetermined room temperature, a relative humidity within five per cent. above or below that desired, as long as the wet bulb temperature does not exceed the dew point temperature desired in the building.

All radiators, with the exception of those in the locker, toilet and play rooms on the ground floor, and in the corridors and small minor rooms, are under thermostatic control. All the indirect radiators are controlled by thermostats in a similar manner. The valves on the radiators in the assembly hall, both on the first floor and gallery, are operated by air pressure through the agency of three-way air cocks conveniently placed. Main shut off dampers at all the vent outlets are opened and closed in similar manner. Two air compressors, one steam and the other motor driven, are provided to furnish the necessary air pressure.

To prevent the transmission of noise and vibration of the fans and motors, special hard pine frames, with compressed cork two inches thick, are placed between the bases of the apparatus and the foundations. In addition to this, the connections between the fan and the galvanized iron ducts are made with heavy canvas.

THE AMERICAN ARCHITECT

CURRENT NEWS AND COMMENT

SAN FRANCISCO CHAPTER, A.I.A.

The regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held on February 19th, 1914. Mr. Lewis G. Maurer and Mr. T. B. Bearwald were present as guests of the Chapter.

Mr. Mooser reporting for the Sub-Committee on Competitions, A.I.A., referred to the San Francisco Public Library Competition (limited), stating that the program had been referred to the San Francisco Sub-Committee, and had been approved. Also that the competition for the High School at Chico had been brought to the attention of the Committee. He stated that there were many competition programs similar to the Chico program, being published, which show every evidence of having been prepared with the assistance of architects, and which are cleverly drawn as a bait to the profession. It was to be regretted that members of the profession lent themselves to the preparation of these programs, and further that so many participated in these competitions.

Mr. McDougall took occasion to say that he had received a letter from the President of the Institute, which was substantially in accordance with the views of the San Francisco Sub-Committee on Competitions regarding some of the essential provisions of the program for the new Library Competition. In the same communication President Sturgis referred to the loyalty of the Chapter, and expressed a wish that the Chapter might increase its Institute membership. To this end Mr. McDougall stated that he had in contemplation a method which he would announce in the very near future.

Previous to the opening of the business meeting, Mr. Lewis G. Maurer, under the auspices of the Educational Committee on Practice, read a paper on "Waterproofing," which was of great interest to the members present; at the close Mr. Maurer received the thanks of the Chapter.

In the matter of the communication from Mr. R. Clifton Sturgis, President

of the Institute, relating to appreciation of services rendered the Institute by Mr. Glenn Brown, it was duly moved, seconded and carried that the Chapter indorse the movement outlined in the communication.

In the matter of the communication from the Institute regarding the change of name of the Chapter, the Secretary was directed to advise the Institute that no legal steps had been taken to make the change, and that nothing would be done until fully advised by the Institute.

The communications from the New York and Philadelphia Chapters regarding Junior Membership, were referred to the Committee on the Revision of the Constitution and By-Laws.

In the matter of the communication from Local Union No. 509, Steamfitters, and also the Masons' and Builders' Association of San Francisco, it was duly moved, seconded and carried that the Chair appoint a Standing Committee to be known as the Committee on Relations with Building Trades.

In the matter of the architectural exhibit for 1915, the communications and correspondence between the Institute and the Chapter were read.

Resolutions in memory of the late William Curlett were adopted by a standing vote of the Chapter.

REGULAR MEETING WASHINGTON STATE CHAPTER, A.I.A.

The Chapter met at the Seattle Athletic Club March 4th, 1914,

Owing to the absence from the city of President Alden and the illness of Vice-President Everett, Mr. Gould was elected temporary chairman.

The Secretary's report was presented, which included, among other things, an invitation from the Pacific Northwest Society of Engineers to be present at their March meeting; an announcement from the Institute that subscriptions would shortly be called for for the purpose of extending and repairing the Octagon. Attention was called to the weekly Thursday luncheons and all members were urged to make an effort to attend them as often as possible.

THE AMERICAN ARCHITECT

The Treasurer's report was read and ordered placed on file.

At the suggestion of the Chairman, Mr. Willcox made a few brief remarks concerning architectural impressions on his recent trip East. He called attention to the fact that Seattle has no such architectural opportunity as is afforded by Michigan Avenue in Chicago, and the streets in several other Eastern cities of similar nature.

The Chairman introduced Mr. E. R. Erskine, who presented to the Chapter his view of the work of architects in Seattle and certain possible extensions of their field along usefulness, suggesting among other things, that they take up the matter of constructing as well as designing of buildings. He suggested that buildings should be so designed that they would not "go out of style," and called attention to the lightness of the structure coupled with heaviness of ornament, which he observed in a good many buildings which had come under his notice, the type usually designed by contractors, who are, of course, unskilled in design.

Mr. A. B. Lord, who was also present as a guest, gave some ideas as to the laying out and developing of certain city districts surrounding prominent buildings.

An interesting discussion followed these two addresses, especially along the lines suggested by Mr. Erskine that architects were entirely too modest and should advertise in some form or other much more than they did at present.

SOUTHERN CALIFORNIA CHAPTER, A.I.A.

The seventieth meeting of the Southern California Chapter of the American Institute of Architects was held at Los Angeles, Cal., March 10th, 1914. The meeting was called to order by Vice-President A. C. Martin.

As guests of the Chapter there was present: Mr. Herman Kemne and son R. H. Kemne, architects from Butte, Mont.; A. W. Rea, architect, W. E. Prine, and H. K. Hensley and John D. Bowler.

For the committee appointed to confer with master builders, Mr. T. A. Eisen presented a report. Mr. A. R. Walker next reported a meeting between the Chap-

ter's sub-committee on Public Information and the Publicity Committee from the Los Angeles Builders' Exchange. The Builders' Exchange requested the Chapter's co-operation for instituting better relations between architects and builders and establishing better methods in the practice of estimating, etc.

It was decided to recognize the request of the Builders' Exchange and to co-operate with them and the Secretary was instructed to communicate to the Exchange the Chapter's vote of confidence.

A discussion was held concerning the proper form for the Chapter to adopt in issuing circulars to its members with reference to competitions. It was proposed that the sub-committee on competition draft a form to be used. An amendment, that the committee prepare special circulars for each individual competition, same to be distributed to the members by the secretary, was carried.

A proposition was presented from George A. Damon of Throop Institute of Pasadena, requesting the Chapter's patronage in instituting a competition for plans showing improvement of property at four corners of two intersecting streets in Pasadena. The matter was referred to the Chapter's sub-committee on education. The secretary was instructed to communicate the Chapter's vote of thanks to Mr. Damon for his public spirited attitude in this matter.

The question of standard specifications as submitted by the Master Painters Association of Los Angeles to the Chapter was taken up. The committee presented a report, together with a communication from the Master Painters Association, requesting the Chapter's adoption of their standard specification. A general discussion followed, after which it was decided to have a number of copies of the specifications printed and distributed among the Chapter members for their report at the following meeting.

For the Committee on Entertainment Mr. John P. Krempel next reported that Mr. Meyer Lissmer would deliver an illustrated lecture on his recent European trip at the following Chapter meeting.

The resolution of condolence on the death of William Curlett, drafted by the committee appointed by this Chapter, was read

THE AMERICAN ARCHITECT

by the Secretary. The resolution was adopted and ordered spread upon the minutes.

Elmer Grey reported for the Chapter's Committee on Civic Improvements that the Committee had a meeting with one from the Municipal League of Los Angeles. The joint committee is to interest itself in the coming exhibit on city planning to be held in Los Angeles and to solicit from the Los Angeles City Council and the Los Angeles County Supervisors financial assistance towards this end. A resolution to this effect has been prepared by the committee to be submitted to these bodies.

With reference to the location of the proposed City Hall for Los Angeles, the committee advised the Temple Block site on condition that certain adjoining property be secured for a general civic centre plan, and the committee further decided that the plan developed by Charles Mulford Robinson for a civic centre for Los Angeles some years ago, would not be practicable or applicable today. They proposed to recommend to the City Council the employment of the best city planning expert available; the committee contemplating a resolution to that effect to be submitted to the City Council. The committee was instructed to act with the planning commission of the City of Los Angeles.

Communications were read from Egerton Swartout, chairman of the committee on Government architecture, A.I.A., requesting this chapter not to take active steps temporarily in matters pertaining to Government architecture:—

From Horace Welles Sellers, secretary of the Philadelphia Chapter of A.I.A., requesting this chapter's action through the Senators and Congressmen of this district in preventing the proposed demolition of the Jackson Barracks at New Orleans. On motion, the secretary was instructed to communicate with the proper authorities in Washington in order to carry out the request of Mr. Horace Welles Sellers.

Mr. John T. Vawter, a member of this Chapter, read a paper on "Architectural Acoustics," illustrated by diagrams and sketches.

PRIZE AWARDS, SPRING EXHIBITION NATIONAL ACADEMY OF DESIGN

The awards of the Jury for pictures exhibited at the Spring Exhibition of the National Academy, in the Fine Arts building, this city, were as follows: The Thomas B. Clarke prize of \$300 to Ivan Olinsky; Julius Hallgarten prizes, Jonas Lie \$300, R. Sloan Bredin \$200, and Edward Spencer, \$100. Inness Gold Medal to Robert Spencer; Maynard prize, \$100, to George Bel- lows; Saltus Medal for Merit, to Cecelia Beaux, and the Shaw Memorial prize \$300, Beatrice Whitney.

NEW OKLAHOMA STATE CAPITAL

It has been announced that the Oklahoma State Capital Commission has named Messrs. Layton & Smith, of Oklahoma City as Architects for the State Capital building.

PERSONAL

Messrs. Kiehnel & Elliott, architects, Pittsburgh, Pa., announce that they will, on May 1st next, remove to new offices in the Keenan Building.

Mr. Wm. Allen Balch, architect, has opened new offices at 110 West 40th Street, New York City. He would like to receive manufacturers' samples and catalogues.

Mr. P. J. Krouse has opened a branch office for the practice of architecture at Laurel, Miss., in charge of Mr. J. H. Bell. Manufacturer's catalogues and samples are desired.

Messrs. Ross & Macdonald, architects, of Montreal, Toronto and Winnipeg, Can., have recently moved their Winnipeg offices from the Union Bank Building to the Tribune Building.

Mr. Verus T. Ritter, architect, Ritter Building, Huntington, W. Va., desires manufacturer's catalogues and samples, having lost by fire all material of that nature previously on file.

INDUSTRIAL INFORMATION

ATLANTIC TERRA COTTA

The Atlantic Terra Cotta Co., 1170 Broadway, New York City, issue monthly a publication designed to supply to architects information as to buildings recently constructed where Atlantic Terra Cotta has been used.

The February, 1914, issue is a theatre number and illustrates in elevation and detail a number of important theatres of recent construction. The March number is devoted to railroad stations and presents a number of examples by means of particularly well chosen and printed views.

A chapter on the proper method of jointing and constructing terra cotta columns gives much practice information of value to the architect and draftsman.

The artistic qualities and mechanical excellence of this publication as well as the material presented place it in a position well in advance of the usual house organ.

ORIENTAL RUGS IN THE HOME

Under the above title, Messrs. Nahigian Bros., 122 South Wabash Avenue, Chicago, have issued a monograph of unusual interest.

While the Oriental rug is in constantly increasing use both for floor coverings, draperies and many decorative purposes, its origin, history and significance as an art production is not generally understood. It is to supply this knowledge and create interest in these Eastern weaves that the monograph has been prepared. Its compilation and illustration has been undertaken in a most thorough manner. Perusal of the text will afford a vast amount of information that is generally only known to experts and collectors.

The work contains chapters on the origin, early history and significance of rugs as applied to religious uses.

It dwells at length on the different weaves, describes the various localities in the East where rugs are made, and explains the symbolism of the various characters that form the designs. A chapter

on the methods employed in preparing and dyeing the wool explains the perfect and lasting qualities of Oriental rugs, and enables the reader to understand why they should be prized above rugs that are the result of modern and less permanent methods.

The perusal of this booklet will result in an increased appreciation of Oriental rugs and add greatly to the satisfaction of their possession.

The various types of rugs are illustrated in color and these reproductions we learn are from the collection of Messrs. Nahigian Bros., who are exclusive importers. Architects are referred to them for particulars as to how copies of this monograph may be obtained.

HOT WATER HEATING

A catalogue of standard types of Hot Water Service Heaters and Converters has been issued by Frank L. Patterson & Co., 26 Cortlandt Street, New York City.

Each type, it is stated, has been designed to meet certain requirements of service and may be used with exhaust or live steam or with low pressure, vacuum or vapor heating systems.

Converters, for use where heating is effected by gravity and forced hot water circulation are also made by this company.

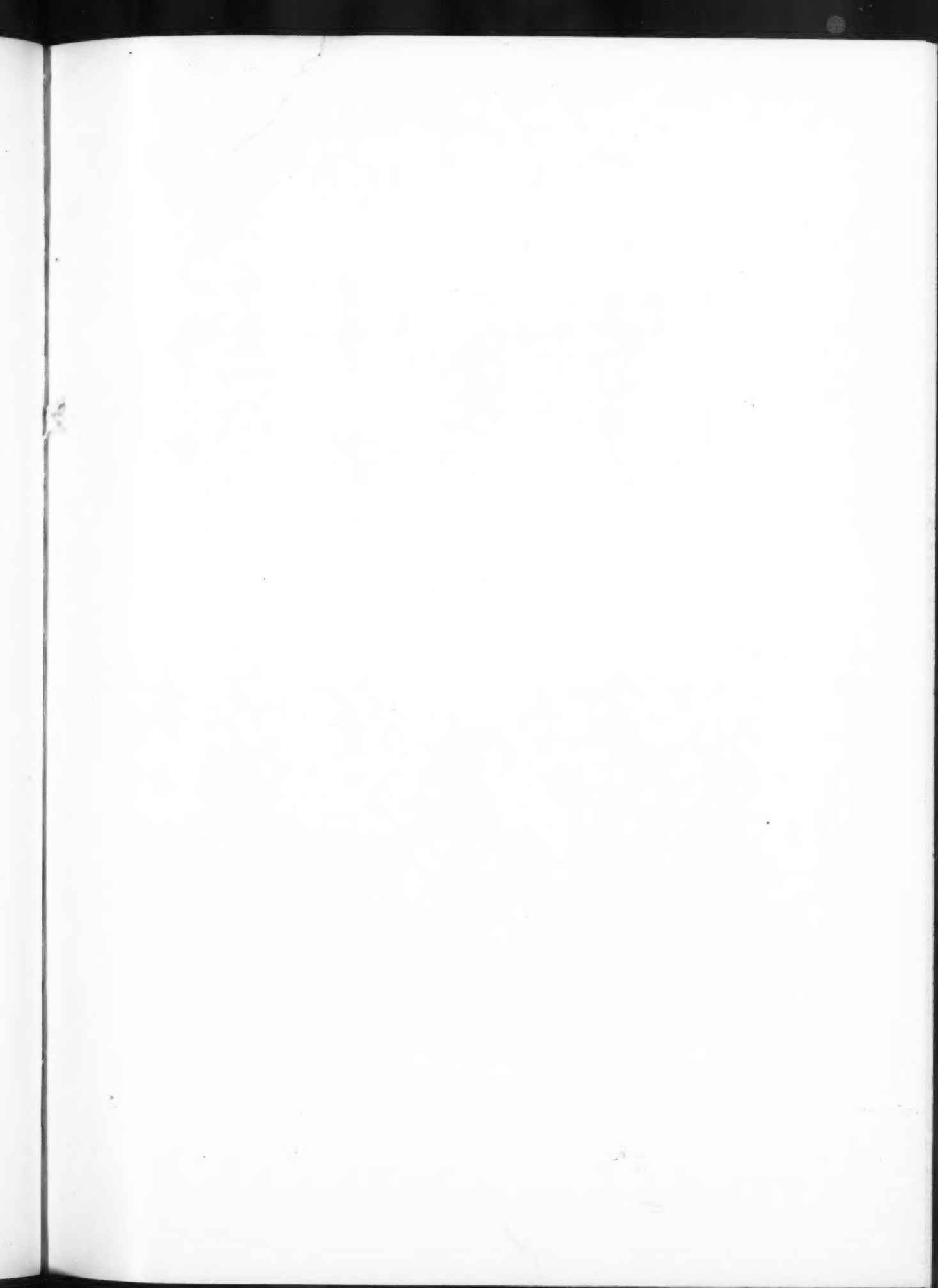
A table of sizes is included in this catalogue, which will be sent on application.

BLOWERS AND EXHAUSTERS

The New York Blower Co., heating and ventilating engineers, whose works are at Bucyrus, O., and principal offices at Chicago, Ill., have issued a pamphlet which illustrates and describes a small fan for pipes from four inches upward in size. These fans, the makers recommend for blast of small boiler outfits, forges, for exhausting dust, gritty substances and similar work.

Illustration is shown of the various types, and tables of dimensions and capacities are given.

The pamphlet will be sent on request.



THE AMERICAN ARCHITECT



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