

THE AMERICAN ARCHITECT

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TECHNICAL HIGH SCHOOL, OAKLAND, CAL.

MR. JOHN J. DONOVAN, ARCHITECT; MR. HENRY HORNPOSTEL, CONSULTING ARCHITECT

THE PUBLIC SCHOOL BUILDINGS OF OAKLAND, CALIFORNIA

By JOHN J. DONOVAN, Architect

ON MAY 16, 1911, the City of Oakland voted \$2,593,900 in bonds for the erection of new school buildings at various points throughout the City.

On February 12, 1912, the writer was appointed Architect for the City of Oakland, having a contract with the City to perform all architectural services in connection with the construction of new buildings.

Due to the loss of time between the date of the election and the appointment and the important need of the completed buildings on account of the crowded conditions of the old buildings, the Commissioner of Public Works, Mr. Harry S. Anderson, and the writer deemed it advisable that other Architects be invited to associate with me in order

that the preliminary work might be expedited and the buildings made ready and relieve the congestion. In view of this, the writer invited several Architects to associate with him, and it is my great pleasure at this time to give full credit to all the gentlemen connected with me in the work.

From February 12, 1912, extending through some months, a very exhaustive preliminary study was made by an advisory committee appointed by the Board of Education. This body was composed of the leading men and women in educational work not only on the Pacific Coast but elsewhere. This committee, in conjunction with the writer, compiled and segregated data and put it in a workable form. Upon the completion of the buildings it is remarkable that

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the data has been followed almost implicitly, and the results show the advisability of the appointment of this commission. The commission consisted of the following:

F. B. Dresslar, School Hygiene Expert, Bureau of Education, Washington, D. C. (by correspondence).

David S. Snedden, State Commissioner of Education of Massachusetts (by correspondence).

Leonard P. Ayres, Associate Director Russell Sage Foundation (by correspondence).

J. W. McClymonds, City Superintendent of Schools, Oakland, Chairman.

J. J. Donovan, Architect.

The uppermost thought during the preliminary work was to achieve, with the funds available, pleasing types of school buildings, buildings which would be inviting to the pupils and free from any of the prison-like effects which characterize many of our old school buildings, and at the same time meet the school requirements in all matters and details. Furthermore, we strove to have the buildings fit the lots.



McCLESNEY SCHOOL, OAKLAND, CAL.

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C. G. Hyde, Professor of Sanitary Engineering, University of California.

Louis M. Termann, Professor of Education, Stanford University.

John Galen Howard, Professor of Architecture, University of California.

A. C. Barker, Assistant Superintendent of Schools, Oakland.

E. Morris Cox, Assistant Superintendent of Schools, Oakland.

Mrs. Fred C. Turner, former teacher in the High School.

Particular care and attention was given to the orientation of the class rooms, placing them so that sunshine entered these rooms at some time of the day. The favorable points of the compass in this locality are the east, west and south, respectively, and in that order.

The playground with relation to the school building was carefully considered and unless there was a very large area of school playground the building was placed so that very little shade fell upon the playground. This meant that our buildings would have,

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BASEMENT, McCHESNEY SCHOOL

as nearly as we could arrange it, a southern exposure for the playgrounds.

It will be noted that many of our buildings shown in the illustrations are one story in height, a new type for this section of the country, and a type which has been adopted by many sections of the State without much consideration. In the first place, the one-story type of school was the result of a clamor on the part of many people momentarily active in school work who knew little or nothing about the subject; mostly nothing, and their influence was such as to dominate the thought in many instances, thereby having an influence on the design and arrangements and, of course, responsible for certain conditions resulting therefrom.

In writing frankly I believe that those who read this article can be benefited by the experiences gained, and I am only too pleased to impart the results of these experiences in order that the mistakes of the past may be minimized in the work of the future.

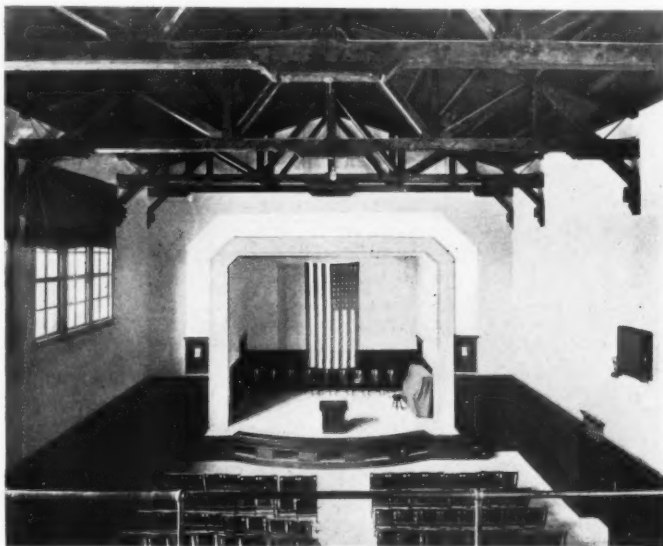
Regardless of what strides we may have made I know that the millennium in this work has not been reached and that there is

room for improvement and enlargement, better conditions, better buildings, better mentalities for the school children, teachers and boards, and, last but not least, for the architects who have the work to perform.

In brief, the one-story school building is a success where there is plenty of land available and ample provisions can be made for protected playroom space so that children may play under cover during inclement weather and play with comfort. The one-story building prohibits this unless girls' and boys' playrooms are incorporated in the design as separate buildings, connected, of course, to the school. Substitutes for these are the assembly

halls and corridors, all of which are not advisable. This also applies to two-story buildings as well unless a scheme is adopted such as is illustrated in the Oak Park School at Sacramento. This feature is mentioned further on.

A requirement demanded by the citizens and which has proven to be a remarkable success is the semi-open-air classroom. This problem has been solved and solved in such a way as to enable the classroom to be closed



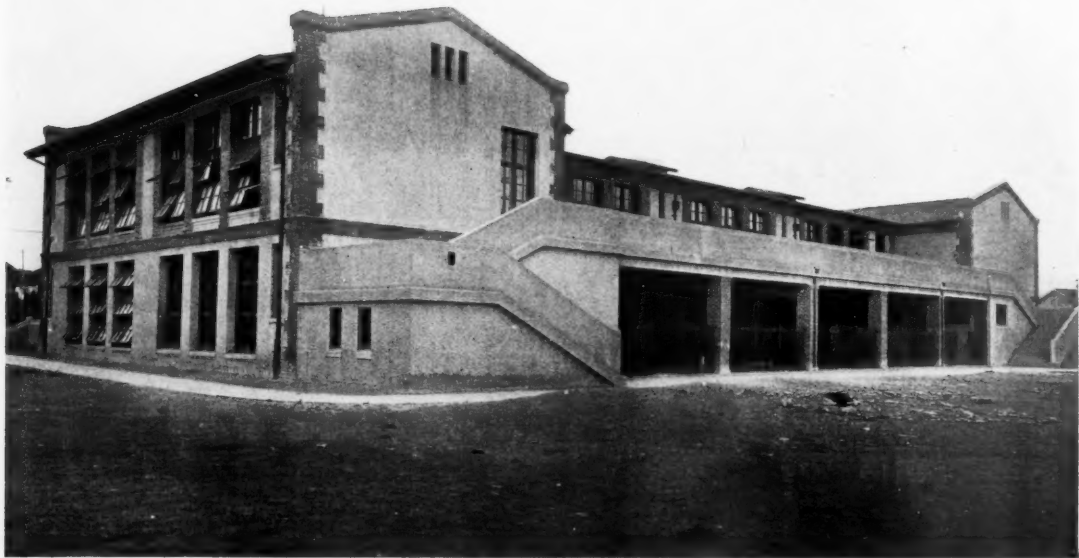
AUDITORIUM, McCHESNEY SCHOOL

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during inclement weather. During favorable weather one side of the room may be almost entirely open. This has been accomplished by the use of a window which revolves in a horizontal plane to an angle of more than ninety degrees. With shades on the underside of the sash and the sash open at an angle of about thirty degrees, direct sunshine is excluded. Usually there are three sashes in each frame, directly over each other, and the opening of the three sashes, with the shades attached thereto, excludes the direct sunshine and at the same time furnishes sufficient open areas for fresh air. Coupled with these are transoms placed near the ceiling, on the opposite side of the room, opening into the corridors or arcades, thereby affording means of obtaining good, natural ventilation.

To the city officials belong the credit of engaging a heating and ventilating expert, also an electrical engineer, who worked under the directions of the Architect, and in consequence of this the schools of the city of Oakland are splendidly equipped in these two branches of their construction.

The heating system installed is the direct and indirect; that is, a series of radiators placed near the windows, supplying sufficient heat to warm the rooms during late

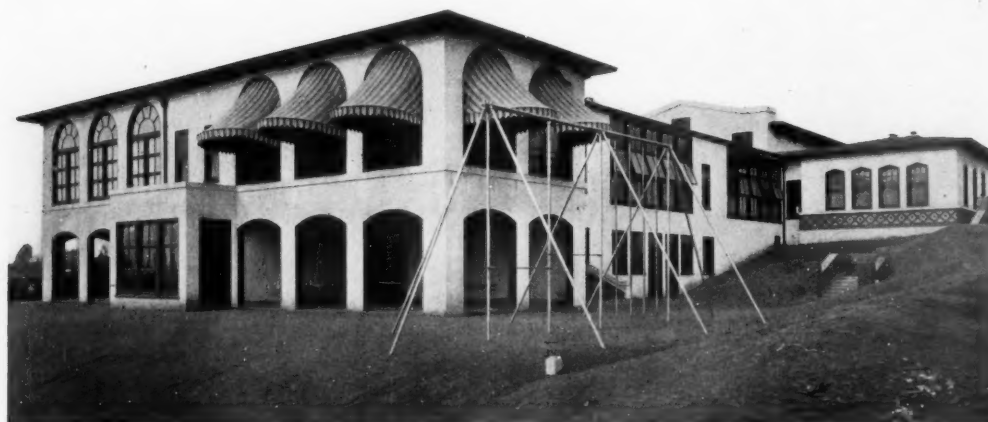
Fall and early Spring and many days in the Winter. The plenum system, which has been installed in every school building, furnishes tempered fresh air in conjunction with the radiators during very cold, dismal days. On these days it is necessary, in order to have the system work as perfectly as possible, for the windows and transoms to be closed. The air furnished by the fans is drawn from the roof and from certain elevations above the ground, high enough to eliminate the suction of dust. In many instances air washers have been installed, so that when the windows are closed we feel quite assured that clean, fresh air is forced into the classrooms, and the hygienic and healthful condition of the children in the new schools show a marked improvement over the old. In many of the old schools wretched conditions prevailed, not only in the plumbing but in the heating and ventilating arrangements. Apparently no attempt was made to provide proper locations for the fresh air intakes and poor methods were provided for the handling of this air after it was drawn in by the fans. The writer remembers one particularly striking instance of visiting a school of the old type (not so very old in years) in company with the department doctor and three other officials, and finding that over



LOCKWOOD SCHOOL, OAKLAND, CAL.

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CLEVELAND SCHOOL, OAKLAND, CAL.

MR. JOHN J. DONOVAN AND MR. EDWIN SHAFER, ASSOCIATE ARCHITECTS

thirty-three per cent. of the children in the classrooms were affected by throat or nasal trouble and that many had been absent from school during two of the Winter months previous to the time of our visit. The teacher informed us that that was a common condition throughout the Winter months of the year, indicating fully that the old type of heating apparatus left its mark wherever it was installed. This statement was confirmed by six of the other teachers in this particular school.

Briefly stating, the other equipments, such as lighting, plumbing and blackboards have been studied with much care and consideration.

The lighting and illuminating engineering for evening courses was repeatedly tested for proper location of lamps in the class rooms, and examination will show that the outlets were placed without regard for symmetry with the axes of the room. The outlets nearest the teachers' desks have been located so that a pupil in the rear seat may read the writing on the blackboard back of the teacher's desk without the rays of the light directly entering the eye. Furthermore, the outlets have been placed so that as much light as possible is to the left of the pupil. Of course, this is impossible to accomplish with the seats nearest the windows but generally the illumination on the desk is such as to eliminate a left-hand shade. Direct lighting, with frosted globes, has been

used throughout these school buildings.

A word on the plumbing may not be amiss in that this has been the least considered subject in most of the previous work, although it is one of great importance. The old latrine for watercloset and urinal uses has been abandoned and in its place are the individual vitreous china waterclosets and urinals, both ventilated into a utility chamber. The toilet rooms are ventilated through the fixtures into this utility chamber, which is connected by ducts to an exhaust fan, exhausting the foul air above the roof.

All toilet rooms are placed so as to obtain as much sunshine as possible. These rooms are supplied with air from the open windows. Inasmuch as the vents through the fixtures are near the floor level there is no cause for foul air passing the faces of the pupils. The system and method has proven very satisfactory and quite sanitary.

We have made it a point to install slate blackboards wherever our funds would permit it, and nearly ninety per cent. of the schools are thus equipped. The cost is about thirty-three to thirty-five cents per square foot, against twelve to fifteen cents per square foot for imitation, but the advantages gained are several hundred per cent. over the use of the imitation slate. I cannot state too strongly that the use of imitation or composition blackboards is a detriment to good and graceful handwriting. It is a pleasure for a child to write on a slate blackboard,

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JEFFERSON SCHOOL, OAKLAND, CAL.

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while it is a laborious task to write on imitation. In the first place, chalk moves over slate without much friction, while on the other hand the chalk is retarded and the labor is great when there is much writing. Therefore, I heartily recommend to all concerned the slate blackboard.

The interior painting and coloring has been kept simple and cheerful, using soft, light tints on the walls and ceilings, mostly buff in color for the walls, and for the ceilings a flat, white egg-shell tone.

Inasmuch as the photographs tell most of the story a few of the buildings will be described but briefly.

The Oak Park School at Sacramento is a twenty-three classroom building, containing an assembly hall, with a seating capacity of eleven hundred, a branch library and reading room, kindergarten, with a hedged terrace, boys' and girls' shower and toilet rooms, laboratory, wood-working room, and

on the north at the second floor are boys' and girls' open playrooms. The floors of these latter rooms are waterproofed to protect the classrooms below. In observing the plan it is notable that all classrooms face east and north, the majority on the east. This was a requirement of the Board of Education of Sacramento, due to the intense heat of that section during the Summer.

There are play-yards for the older boys and girls on the east and west, sufficiently large to permit games of baseball and basketball, and interior playgrounds for the smaller boys and girls.

Between the arcade connecting the assembly hall and the library and the center pavilion are experimental gardens, which serve a very good purpose in the study of horticulture and agriculture, subjects which are taught extensively in the interior towns and cities of the State of California.

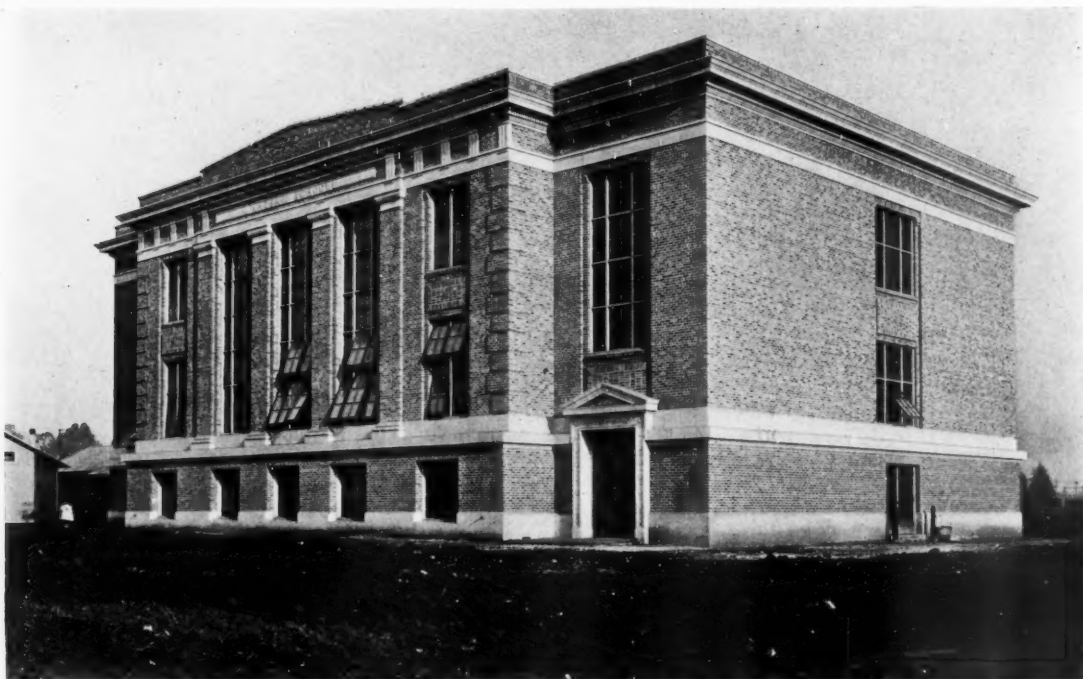
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LAZCA SCHOOL, OAKLAND, CAL.

MR. JOHN J. DONOVAN, ARCHITECT



LONGFELLOW SCHOOL (ADDITION), OAKLAND, CAL.

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THE AMERICAN ARCHITECT

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THE ADVANTAGES TO BE DERIVED FROM THE ENACTMENT OF WELL-CONSIDERED STATE BUILDING LAWS

THE requirements of the present century are gradually enlarging the field of operation of architects, and in some instances that of builders, beyond their once restricted geographic limits. Today the architect not infrequently finds that a large percentage of his work lies outside of the city in which his principal office is located, and during the course of this out-of-town practice he is constantly confronted with difficulties, annoyances and confusion arising from lack of even partial uniformity in the building laws and ordinances which govern construction work in the various cities of a given state. What is recognized as good practice in one city is often not permitted in another of the same size and importance. For this reason, if for no other, architects generally will undoubtedly welcome any step taken toward rendering divergent codes more nearly uniform and incidentally more consistent with modern construction methods. Such a step is not only in the direction of simplifying the work of building operations, but if proper standards are fixed

will result in a very general improvement in the types of buildings erected throughout the country. There is no reason why a building code, framed for one city, after careful study and consideration by men of wide experience and technical training should not be equally applicable to other cities of the same class within certain geographical boundaries. This fact is apparently beginning to be realized even by men outside of the profession, and we find certain minimum building requirements in force as affecting certain classes of buildings in various states, and it is hoped that these laws will be amplified and extended until they cover more fully the entire construction field.

A movement to secure the passage of a uniform state building law is now being carried on in Massachusetts. A special committee of the Boston Chamber of Commerce has appointed a sub-committee with Mr. C. H. Blackall acting as chairman, the purpose of this committee being to gather data and direct the chamber's attitude toward a bill now pending in the Legislature. Mr. Blackall's familiarity with the technicalities of building construction, and the operation of building regulations in general, is well recognized, and it is not only gratifying that the profession is so well represented in this important work, but it augurs well for the character of laws that will in all probability be recommended as a result of the present movement. The responsibility of drafting even a city building code is great, but that of framing a state law is far greater and requires a broader knowledge and experience in order to reconcile and harmonize the interests of an entire state, and meet the various conflicting conditions to be found in different sections of the commonwealth.

Where local interests are in conflict, each must be impartially investigated to insure that no unnecessary hardship is placed upon any individual city or community. In the case of a state law, the influences that make for unfair discrimination are of state-wide rather than of local extent, and it is probable that the difficulties of harmonizing these wider and more divergent interests, to a greater degree than anything else, have prevented, up until this time, the more general adoption of the state code principle.

It is perhaps visionary to predict or expect a national building code, since there is

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such wide divergence in methods, materials and requirements of building operations in different parts of the country. These differences are occasioned, to some extent at least, by the wide differences in climatic conditions and the greater availability of certain building materials in various sections of the Union than in others, but it is only a natural sequence of the step now being taken from city to state building supervision. Possibly national supervision might be accomplished by a division of the country into zones and modification made of general requirements to suit each zone and still preserve general uniformity.

In the ultimate development of the movement now gradually taking form, it is obvious that much can be done toward making the laws that govern building not only more nearly uniform in various sections of the country where requirements are practically identical, but also in making them more scientific and effective.

AN "HONEST MATERIALS LAW" SUGGESTED

THE beneficial effects resulting from the operation of the pure food and drug law, enacted a few years since, have been so marked that the thought that similar restrictions could, to advantage, be placed upon the manufacture of building materials and equipment has many times found expression among architects. For example, many users of wood, and many of those who specify it, believe that there should be what might be termed a "pure lumber law" of some kind, devised and put into effect, but just how drastic the provisions of such a law should be is a question that even the advocates of the measure are usually not prepared to state. They do agree, however, on the general principle that the users of lumber, as well as the general public, should know exactly what they are buying. A dealer of some prominence in New York City has recently gone so far as to advocate the requirement that every man-

ufacturer be obliged to stamp every piece of lumber that passes through his mill with a label, announcing both kind and quality of the wood. Another is of opinion that all lumber sold,—as mahogany, for instance,—should be the genuine article, and should be marked with a stamp indicating the location from which the logs were cut. Opposed to this feeling is a third dealer, who is solicitous of his customers' pride, and objects to telling them that the mahogany they buy is not the genuine mahogany, for fear of hurting their feelings.

Of course, practically all of those opposed to the enactment of such a law point out the fact that lumber or other building products not true to name cannot in any event endanger the health or morals of those using them, as in the case of adulterated foods or medicines, and on that account question the necessity or even advisability of the government's imposing the requirements advocated. It would undoubtedly be difficult to frame a Federal law that would protect the purchaser of all materials. On the other hand, it would seem as though a policy of honesty and straightforward dealing as practiced by some of the most successful manufacturers in this country voluntarily, would result in placing the business of the manufacturer of building products on a plane that would be unassailable, from every angle. The trademark placed on goods, at the present time, offers the best guarantee of quality, for the manufacturer who does not protect his trademark by every possible means is indeed rare. So general is this fact now understood that architects are reluctant to accept unmarked goods for use in the construction of even the most unimportant buildings.

A Federal law requiring a statement such as indicated above, to be attached to every package, piece or container of goods, would not in any way affect the manufacturer of staple articles, but would remove dishonest competition and make the work of the architect when engaged in the inspection of building construction measurably lighter as well as more efficient.

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The Public School Buildings of Oakland, California

(Continued from page 331)

The structure is of reinforced concrete, trimmed with red tapestry brick with spots of color produced by terra cotta tile. It is crowned with a red mission tile roof. This school building represents a total investment of \$225,000.

The Oakland Technical High School, or what was originally known as the Manual Training and Commercial High School, consists of a group of buildings. The south-east pavilion is devoted to commercial work, such as bookkeeping, stenography, etc. The pavilion south of the assembly hall is de-

have a wider use than day school instruction. The Board of Education at the present time is preparing a curriculum for evening instruction to the apprentices of the various trades. The unlimited possibilities of the uses these buildings present, crowd each other out of place. For instance, besides the instruction on mechanical work the probability is that the student-apprentice will have many opportunities to satisfy any desires for advancement into the theories, physics and chemistry of his work.

The plot plan shows the campus to the west of the group, with the gymnasium on the side.

The building just completed is most splendidly equipped. The arrangements are such



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voted to classrooms for the academic studies. The first pavilion north of the assembly hall and connected thereto is the Science Department. The northeast pavilion is assigned to home economics, and the northwest pavilion in the first group contains the drafting rooms for mechanical, architectural and free-hand drawing.

The group of four buildings to the west of this latter group and connected by an arcade includes the eight shops. They are, in order, the machine shop, forge shop, foundry, electrical shop, carpenter shop, plumbing and metal shop, cabinet and pattern shop, and are complete in every detail and equipped with the most modern machinery. It is intended that these shop buildings shall

that the various departments are free from confusion during the arrival and departure to and from the class rooms. Numerous stairways have been placed to assist in this freedom from congestion.

These buildings are of reinforced concrete, trimmed with polychrome terra cotta, and the effect is stupendous in viewing the building from the east, with its façade over eight hundred feet long, screened with engaged columns; and, at the same time, these columns obstruct no light from the classrooms. A notable result is attained from the reflected light emitted from that surface of the column presumably in shade.

The exterior plastered surfaces have been painted with a concrete paint of a soft, warm

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CORRIDOR, DURANT SCHOOL

tone, which, together with the polychrome terra cotta, has created an effect which is simple and interesting.

I wish to give credit to Mr. Henry Hornbostel, of New York, for his work on this building. He collaborated and assisted in the preliminary drawings, and, as usual, the conception is of merit.

The Clawson School, which is illustrated, is of more recent design, and incorporates many salient features, which have been worked out in close collaboration with the school authorities.

The assembly hall has been made sufficiently large and arranged so that it is easily converted into a gymnasium, with the lockers and showers to the rear of the assembly hall and at the ground floor. Thus the locker rooms and showers will also serve the schoolyard, which is one of the public playgrounds.

In arranging the classrooms of this building the east and west lights have been adhered to.

This is a three-story building and was designed as such so as to provide sheltered playgrounds in the basement. These playgrounds are open on the east, giving a flood of light and fresh air to these places.

Its composition is of reinforced

concrete structure, trimmed with architectural terra cotta and vari-colored buff face brick.

The classrooms in this building have been changed from the others in size to 22 feet 6 inches in width by 31 feet 6 inches in length, it having been found that, regardless of the purpose to limit the size of the classrooms, additional seats, due to crowding, have been worked in. The previous size of classrooms was 20 feet 6 inches by 31 feet, purposely made so in order to limit the number of seats to forty. It has been found, however, that the additional two feet will give better seating and aisle conditions and very slightly increasing the cost of the building.

The cost of this building when completed will approximate \$165,000.

The working out of the Emerson School proved to be a very interesting and delightful problem. On this work Mr. John Galen Howard was the Associate Architect, and his work and assistance was of the greatest value, and the simplicity of the design and arrangement is sufficient evidence of the very happy coöperation.

This is a one-story reinforced concrete school building with two interior patios, assembly hall, playroom and cafeteria kitchen,



TYPICAL BOYS' TOILET ROOM, DURANT SCHOOL

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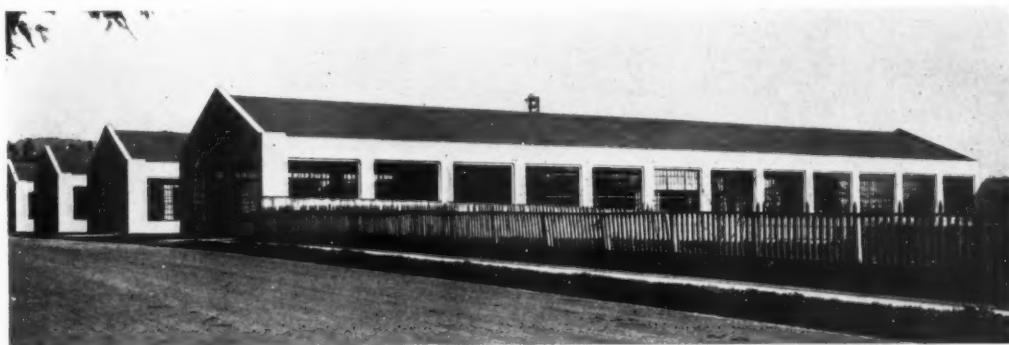
separating the patios. It will be observed from the floor plan that the orientation in this design is that of the east, south and west for the classrooms, and the north light for the manual training, domestic arts, science, club room, teachers' lunch room, etc. A very happy location has been assigned to the kindergarten, which is directly in the center of the south portion of the building and has an interesting pergola with a wrought-iron railing designed in the letters of the alphabet. This is one of the most pleasing of the one-story type of schools.

The other schools which are illustrated have been developed from the requirements of the program, which established the sizes of the classrooms, the capacity of the assembly halls and the arrangement and location of the club rooms and libraries with regard to the use by the public.

In this respect a very careful study has

been given the planning of the buildings. No city has attempted more in the wider use of the public school than Oakland, for each building contains a club room with its kitchenette for civic club uses, a branch of the public library, showers and locker rooms for the playground, dressing and bathing accommodations. The spirit which prompted the extensive use of the school has been maintained in the working out of the various problems.

A most worthy and notable fact in the construction of these buildings has been the integrity of the entire operation. The hearty coöperation by the Board of Education, the Commissioner of Public Works, Mr. Harry S. Anderson, and the City Council. The hearty approval which these buildings have received from educators and visitors is well worth the effort made to do something for once in a good, broad, liberal manner.



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CURRENT NEWS AND COMMENT

The Recently-Enacted New York State Registration Law

Of the many registration laws governing and regulating the practice of architecture in various states, none more clearly defines the status of the profession in its relation to building operations than the New York law which received the approval of Governor Whitman on May 3d and took effect immediately.

This law, the full text of which is printed herewith, is the result of co-operation between a representative committee of the three architectural bodies in the state and the committee of the state legislature.

For a period of six years the joint committee of architects has been engaged in an effort to secure a law that would be, as far as knowledge of the necessities of architectural practice could suggest, unassailable and one that would take the administration of it out of political influence.

The placing of the administration of this law under the control of the State University is intended to operate as a guarantee of efficiency.

With this law now in force, the practice of architecture in the state of New York may be expected to regain certain dignities of which it has been deprived by reason of the activities of a class that is now, or soon will be, eliminated.

Members of the profession and other citizens of the state are particularly fortunate that this matter has all along been in the hands of a committee so thorough and so steadfast in its purpose as to accept no "makeshift" or compromise.

The text of the law follows:

ASSEMBLY BILL NO. 1149.

AN ACT TO AMEND THE GENERAL BUSINESS LAW TO REGULATE THE PRACTICE OF ARCHITECTURE.

§ 77. Registered architects. Any person residing in or having a place of business in the state, who, before this article takes effect, shall not have been engaged in the practice of architecture in New York state, under the title of architect, shall, before being styled or known as

an architect, secure a certificate of his qualification to practice under the title of architect, as provided by this article. Any person who shall have been engaged in the practice of architecture, under the title of architect, before this article takes effect, may secure such certificate, in the manner provided by this article. Any person having a certificate pursuant to this article may be styled or known as a registered architect. No other person shall assume such title or use the abbreviation R. A., or any other words, letters or figures to indicate that the person using the same is a registered architect.

§ 78. Board of Examiners. The regents of the university shall, within ninety days after this article takes effect, appoint a board of five examiners who shall make rules for the examination and registration of candidates for such certificates, subject to the approval of the board of regents. Such board of examiners shall be composed of architects, who have been in active practice in the state of New York for not less than ten years, previous to their appointment, selected by the regents. Such examiners shall be entitled to such compensation for their services under this article as the board of regents shall determine, not exceeding in the aggregate the amount of fees collected from applicants for certificates.

§ 79. Qualifications; examination; fees. Any citizen of the United States, or any person who has duly declared his intention of becoming such citizen, being at least twenty-one years of age and of good moral character, may apply for examination or certificate of registration under this article, but before securing such certificate shall submit satisfactory evidence of having satisfactorily completed the course in an approved high school or the equivalent thereof and subsequent thereto of having satisfactorily completed such courses in mathematics, history and one modern language, as are included in the first two years in an approved institution conferring the degree of bachelor of arts. Such candidate shall in addition submit satisfactory evidence of at least five years' practical experience in the office or offices of a reputable architect or architects, commencing after the completion of the high school course. The board of examiners may accept satisfactory diplomas or certificates from approved institutions covering the course required for examination. Upon complying with the above requirements, the applicant shall satisfactorily pass an examination in such technical and professional courses as are established by the board of examiners. The board of examiners in lieu of all examinations may accept satisfactory evidence of any one of the qualifications set forth under subdivisions one and two of this section.

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1. A diploma of graduation or satisfactory certificate from a recognized architectural college or school, together with at least three years' practical experience in the office or offices of a reputable architect or architects; but the three years' experience shall be counted only as beginning at the completion of the course leading to the diploma or certificate;

2. Registration or certification as an architect in another state or country, where the standard of qualifications for the same are not lower than those required by the board of examiners under this article;

3. The board of examiners in lieu of all examinations shall accept satisfactory evidence as to the applicant's character, competency and qualifications, and that he has been continuously and exclusively engaged in the practice of architecture for more than two years next prior to the date when this article shall take effect; or satisfactory evidence that the applicant has been actually and exclusively engaged in the practice of architecture on his own account or as a member of a reputable firm or association for more than one year prior to the date when this article shall take effect; providing the application for such certification shall be made within one year of such date.

Every person applying for examination or certificate of registration under this article shall pay a fee of twenty-five dollars to the board of regents.

§ 79-a. Certificates. The result of every examination or other evidence of qualification, as provided by this article, shall be reported to the board of regents by the board of examiners, and a record of the same shall be kept by the board of regents, and such board shall issue a certificate of registration to every person certified by the board of examiners as having passed such examination or as being otherwise qualified to be entitled to receive the same. Every person securing such certificates shall file the same with the county clerk of the county in which he resides or maintains a place of business. The board of regents may revoke any certificate, if such action be recommended by the board of examiners, after thirty days' written notice to the holder thereof and after a hearing before the board of examiners, upon proof that such certificate has been obtained by fraud or misrepresentation, or upon proof that the holder of such certificate has been guilty of felony in connection with the practice of architecture.

§ 79-b. Violation of article. Any violation of this article shall be a misdemeanor, punishable for the first offense by a fine of not less than fifty and not more than one hundred dollars, and for a subsequent offense by a fine of not less than two hundred nor more than five hundred dollars, or imprisonment for not more than one year, or both.

§ 2. This act shall take effect immediately.

INDUSTRIAL INFORMATION

Heaters

The 1915 catalogue of Superior Warm Air Heaters and heating supplies has just been issued by the Utica Heater Company, Utica, N. Y. This catalogue not only illustrates and describes the product of this company, but it also contains an argument in favor of, and a plea for, warm air systems of heating and ventilating. It is stated that a thorough study given to the subject of the heating and ventilating of homes (which is recognized as a science of prime importance, because health and happiness depend so largely upon proper temperature and an adequate supply of fresh air) shows that a warm air system best solves the problem. This is the result, it is claimed, of the fact that the warm air system warms and ventilates the home by delivering to each room a supply of fresh warm air of the right tem-

perature, expelling an equal amount of used air; also because it supplies air with a proper amount of moisture contained therein. Further than this, it is claimed that this system is more quickly responsive to draft control, giving heat more promptly when needed, and permitting an equally prompt reduction of temperature when desired. It is also stated to be economical both in first cost and in fuel consumed, and requires, according to this writer, a minimum amount of care and maintenance outlay. All of these advantages, however, are not to be obtained from a cheap and poorly designed furnace installation.

The name "Superior," which is given to the Utica Heater Company product, is claimed to be a guarantee of merit, as it represents correctness in design, perfection in workmanship, conservative ratings, and sci-

entific methods of heating. The catalogue in question presents two entirely new types of superior heaters, the Superior "Lodown," and the Superior "Evertite." Both are said to possess original features which are the result of long experience, checked by careful experiment.

Other types of Superior Warm Air Heaters, which, according to this catalogue, have long given good accounts of themselves, are also illustrated. The methods of rating in this new catalogue have been changed from the old method of cubical contents, which it is believed has been misleading in the past. The real standard of heating value in a warm air system is stated as the number and size of heating pipes the furnace will supply with air warmed to the required temperature.

The Utica Heater Company has adopted as its standard of rating "square inches of cross section pipe area heater will supply for first floor at a proper temperature and velocity." These ratings are said to be the result of actual experience and will be guaranteed provided the installation is properly made and the conditions are fair.

A great deal of practical information concerning heating, in addition to data in connection with this company's product, is given in this catalogue, which will be sent to architects upon request.

Adjustable Self-locking Hinge

Mark C. Tredennick, 1123 Broadway, New York, has recently published a booklet illustrating and describing the "Adseloc", which is manufactured by him and sold as an adjustable self-locking hinge. It is designed to hold a window at any angle against wind pressure, without the aid of adjusters.

It is claimed that by the use of these hinges, a window can be opened and left in any desired position or a door can be operated without a check. These hinges are used for French windows, for casement sash, and for transoms. Hinges are made in sizes 3 x 3 and 4 x 4. Special hinges will be prepared for special uses.

This pamphlet or other desired information will be sent upon request.

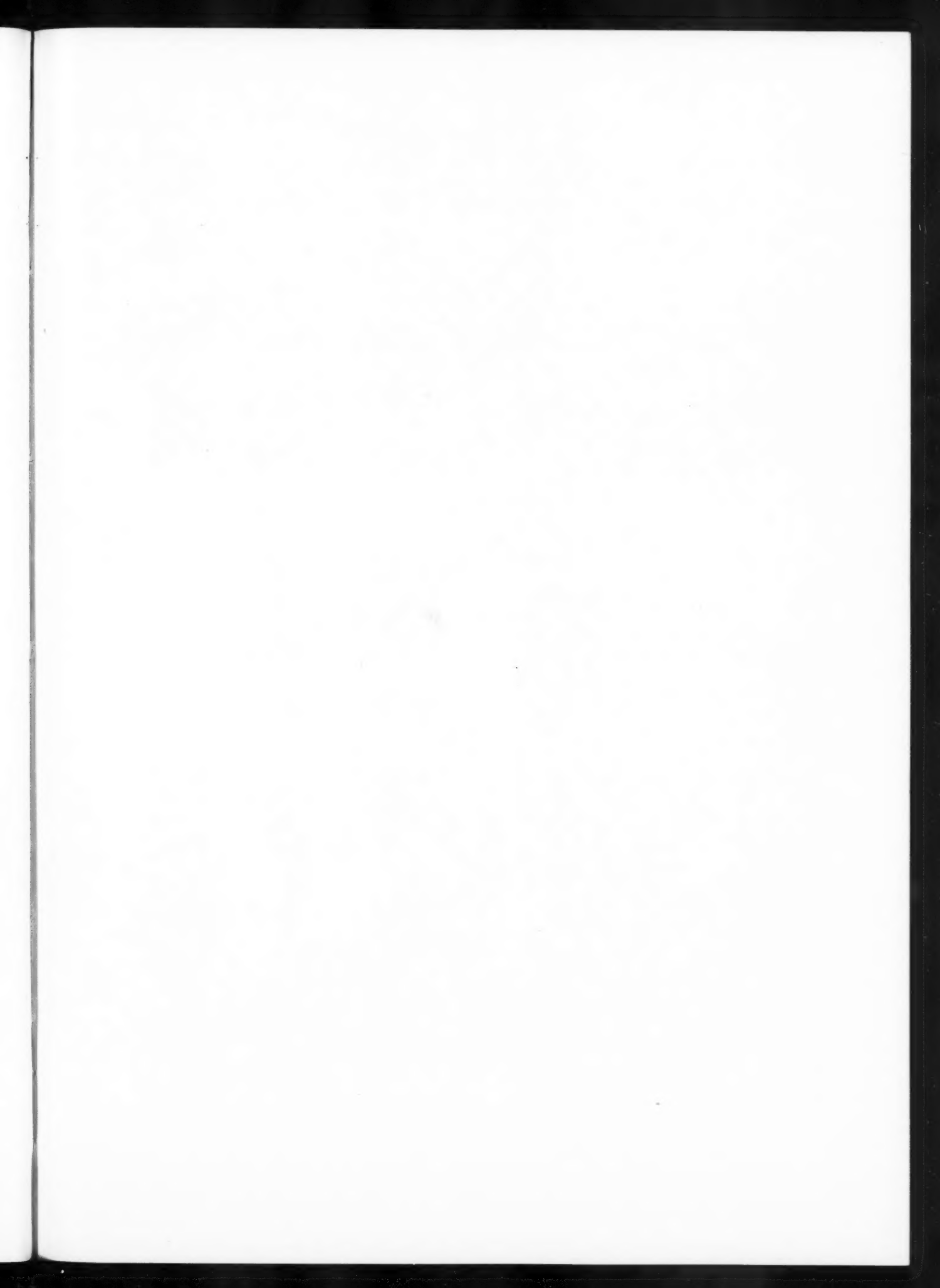
Austin Organs

An unusually artistic and interesting catalogue, designed for general distribution among architects, building committees or others whose duties include the possible selection or purchase of an organ, has recently been compiled and issued by the Austin Organ Company of Hartford, Conn.

The organ is, without doubt, one of the oldest musical instruments, but as originally produced it was only a crude and partially unmanageable machine, capable of but the simplest and most limited effects. During recent times, however, it has been greatly developed, and during the past twenty years many radical and important improvements have been made. It is stated, however, that the most important developments have occurred within the last decade.

The stumbling block which has, it is claimed, always heretofore baffled the best efforts of the old masters, is the variation of air pressure delivered to pipes under varying conditions of use. Such variation or unsteadiness, commonly called "robbing" is due to the weight and friction of the air itself in traveling any distance through pipes, conductors or contracted chests. It is stated that the Austin universal air chest, invented and patented by John T. Austin, with many subsequent improvements, has made possible the perfecting and simplifying of the Austin organ. By the use of this chest, it is claimed that even the expert is incapable of detecting the slightest variation of pressure, due to the quantity of air used by the pipes. Absolute unvarying pressure is the very foundation, it is stated, and the most necessary factor for building up a dignified organ tone, while with varying pressure, artistic tonal results are impossible.

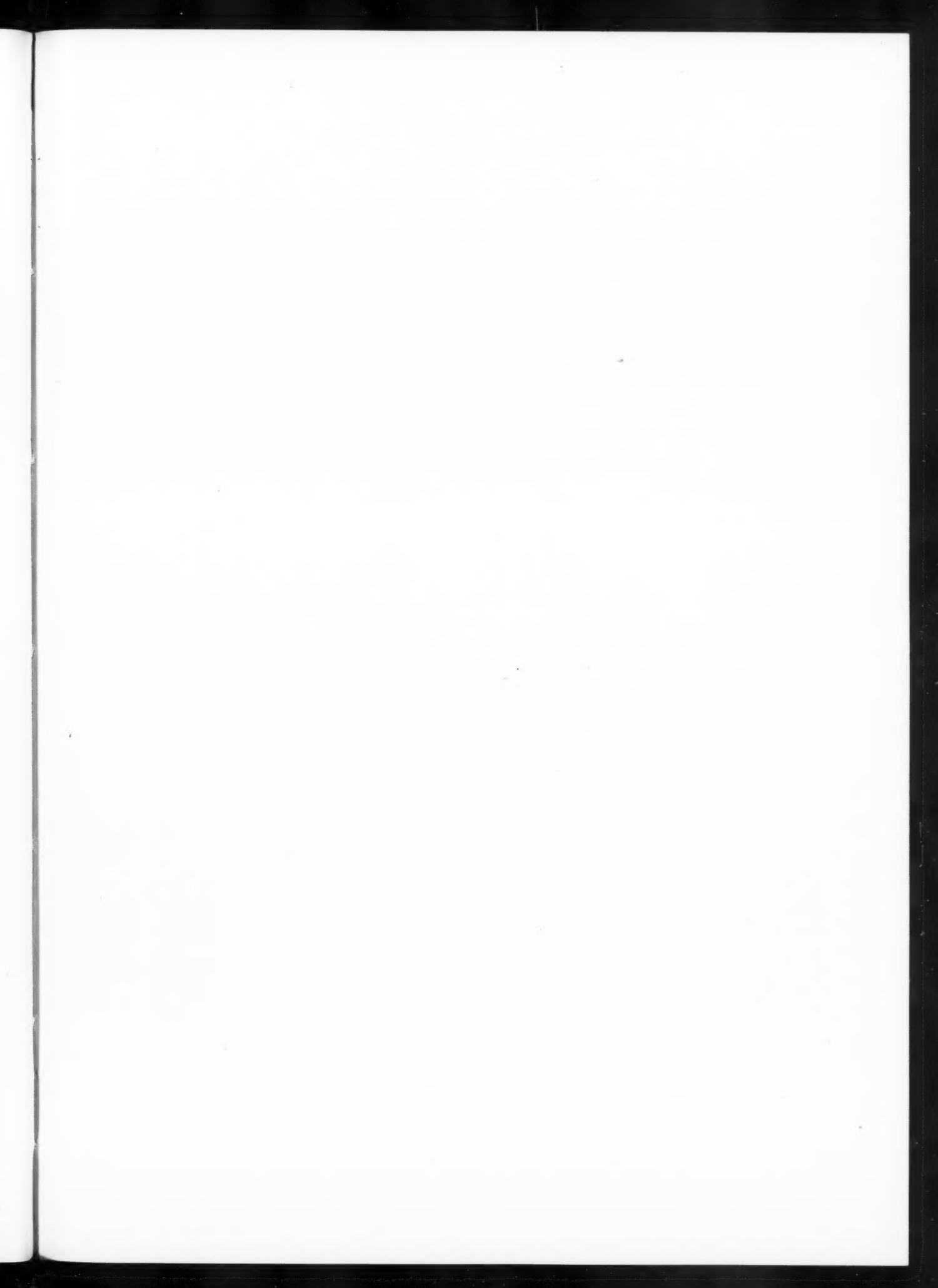
This universal air chest is shown in detail in this catalogue, and the method of its attachment illustrated. Other details in connection with the construction of organs, and complete descriptions of the various parts and their operation, a number of prominent installations, and many testimonials from users, are all given in this brochure.

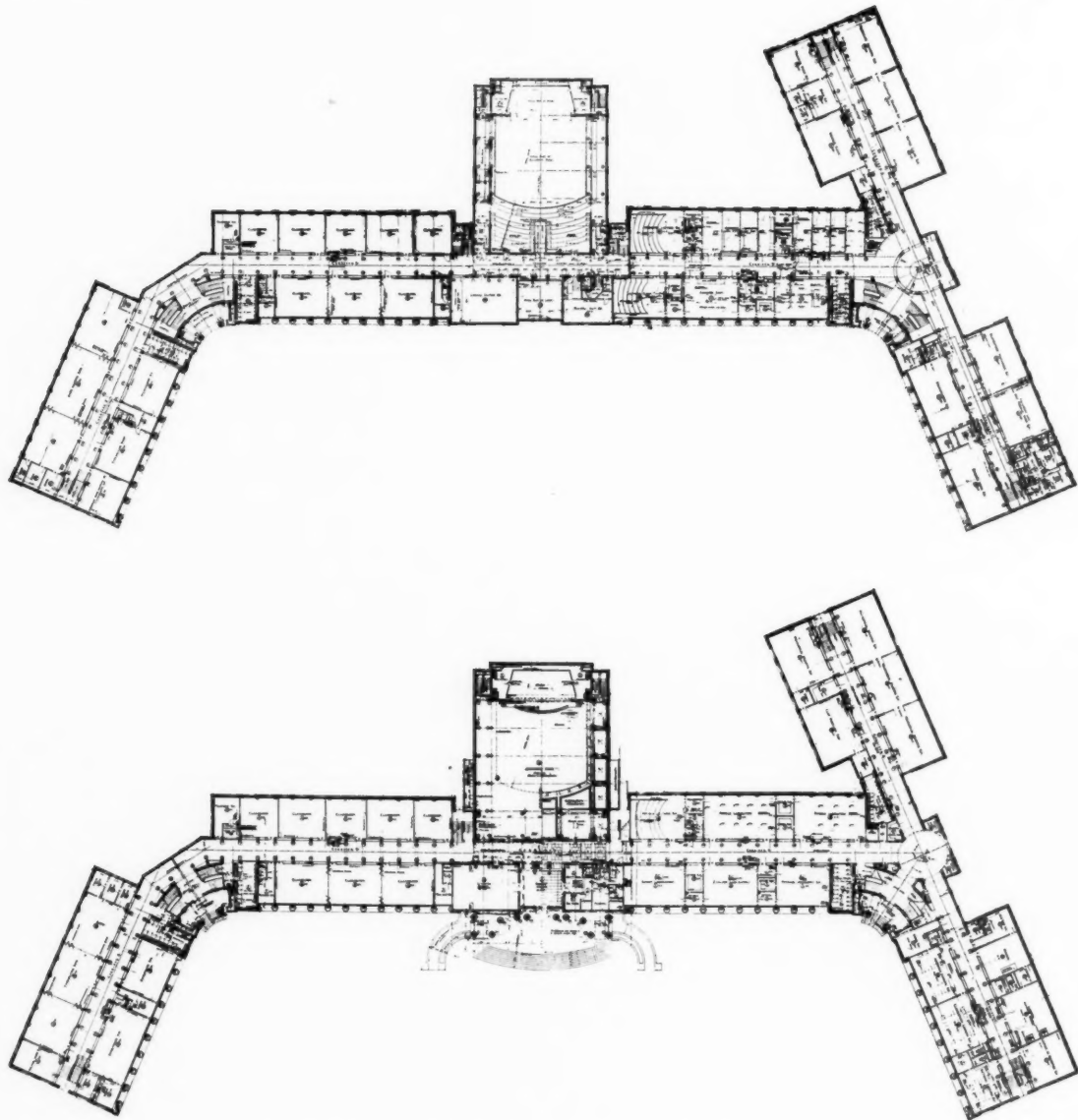




TECHNICAL HIGH SCHOOL, OAKLAND, CAL.

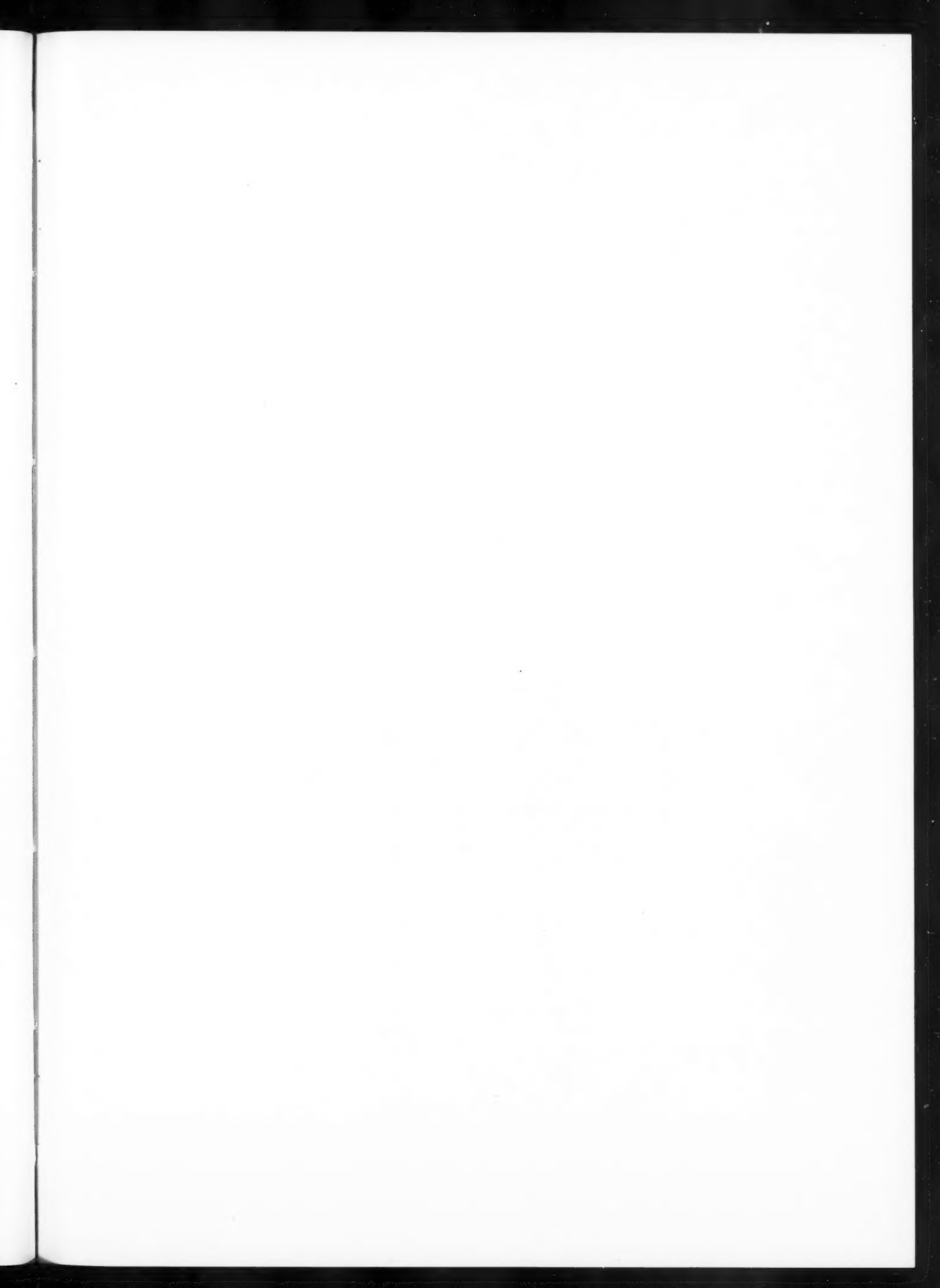
MR. JOHN J. DONOVAN, ARCHITECT; MR. HENRY HORNPOSTEL, CONSULTING ARCHITECT

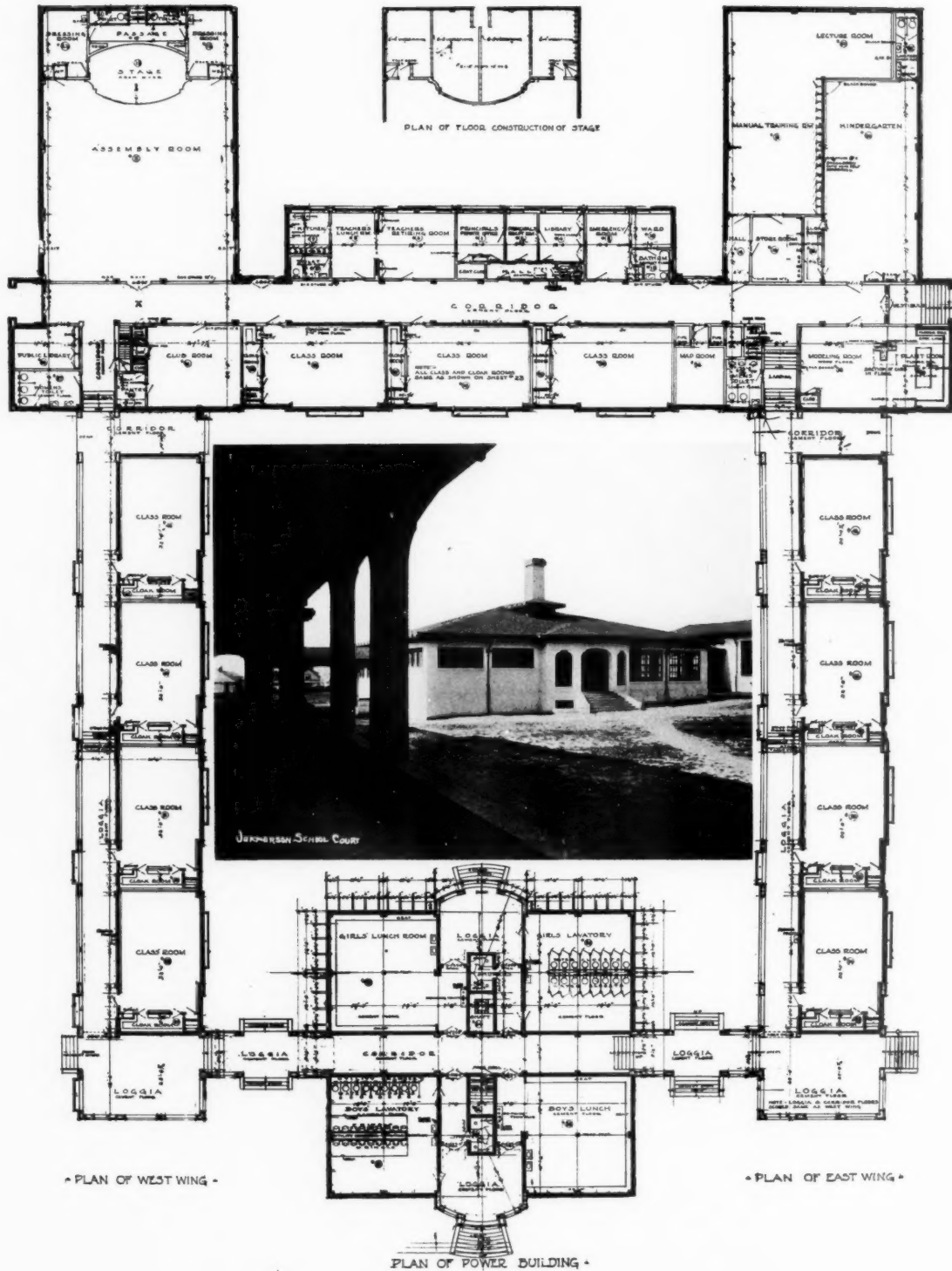




TECHNICAL HIGH SCHOOL, OAKLAND, CAL.

MR. JOHN J. DONOVAN, ARCHITECT; MR. HENRY HORNBOSTEL, CONSULTING ARCHITECT





JEFFERSON SCHOOL, OAKLAND, CAL.

MR. JOHN J. DONOVAN AND MR. W. J. MILLER, ASSOCIATE ARCHITECTS





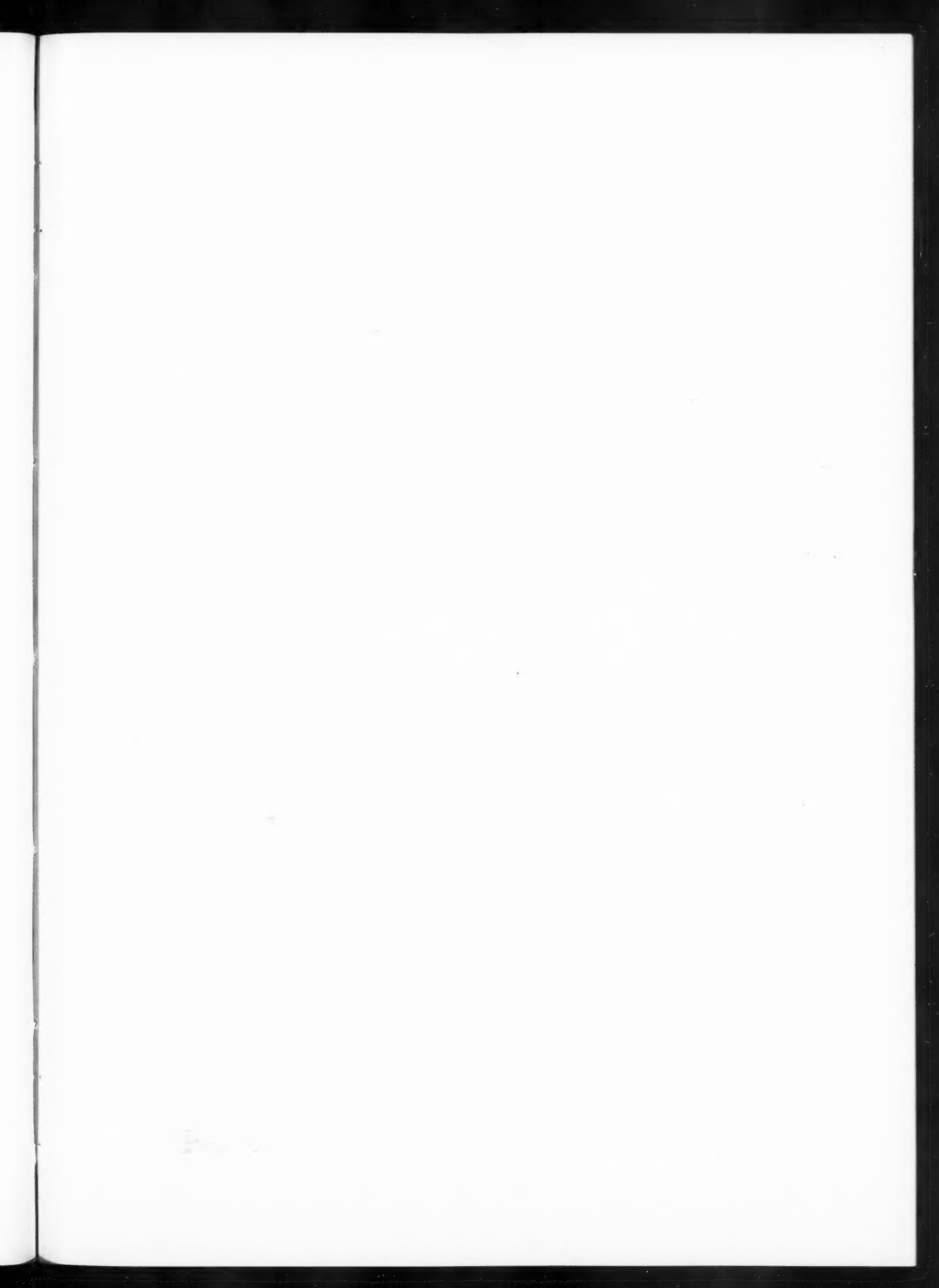
MANUAL TRAINING ROOM

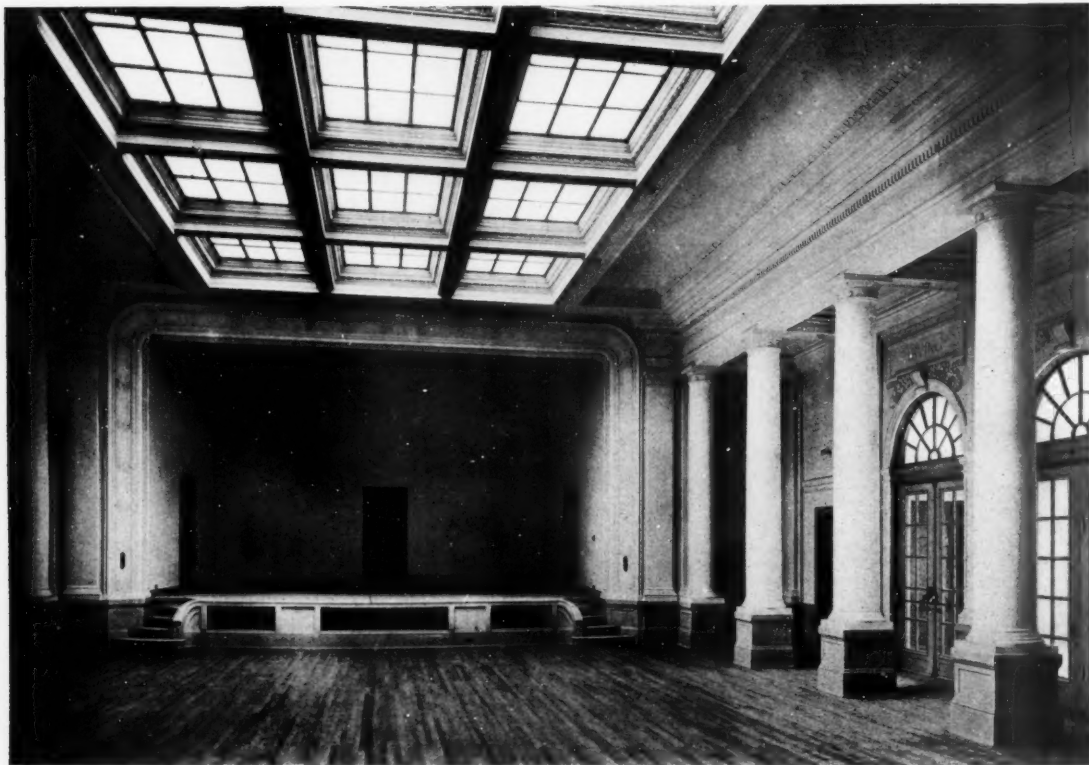


PRINCIPAL'S OFFICE

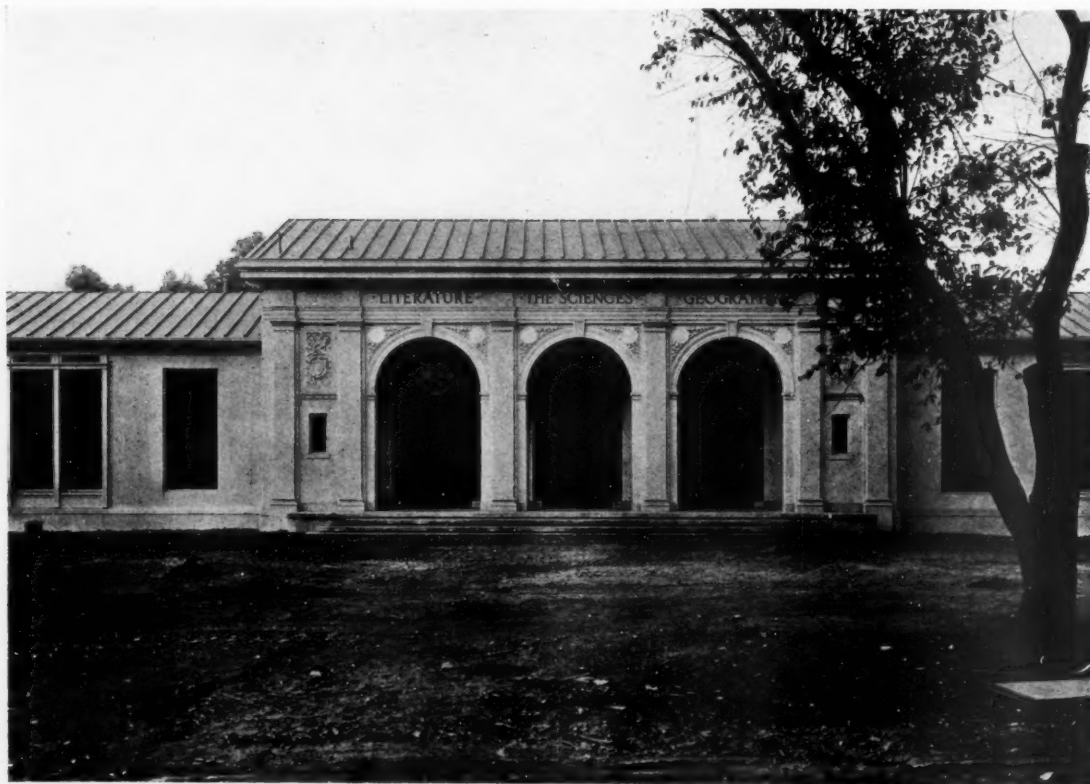
JEFFERSON SCHOOL, OAKLAND, CAL.

MR. JOHN J. DONOVAN AND MR. W. J. MILLER, ASSOCIATE ARCHITECTS



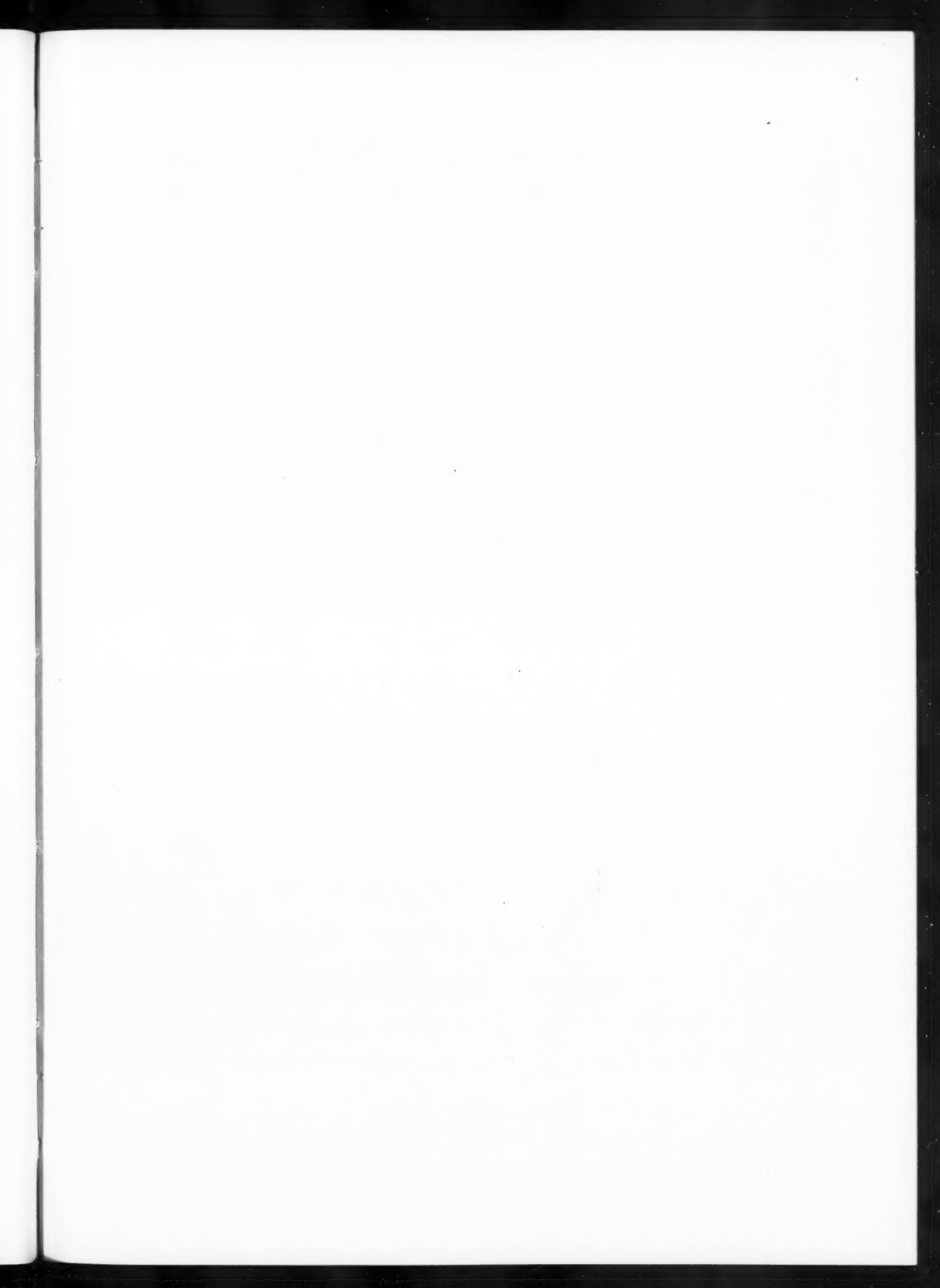


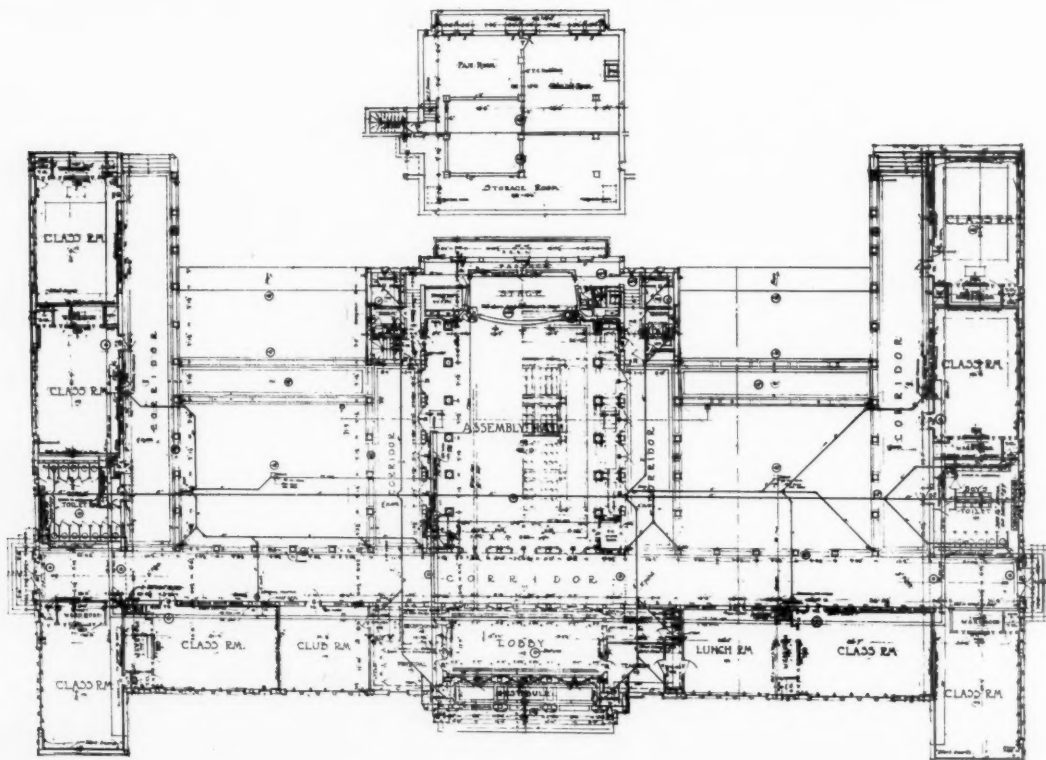
ASSEMBLY ROOM



LOCKWOOD SCHOOL, OAKLAND, CAL.

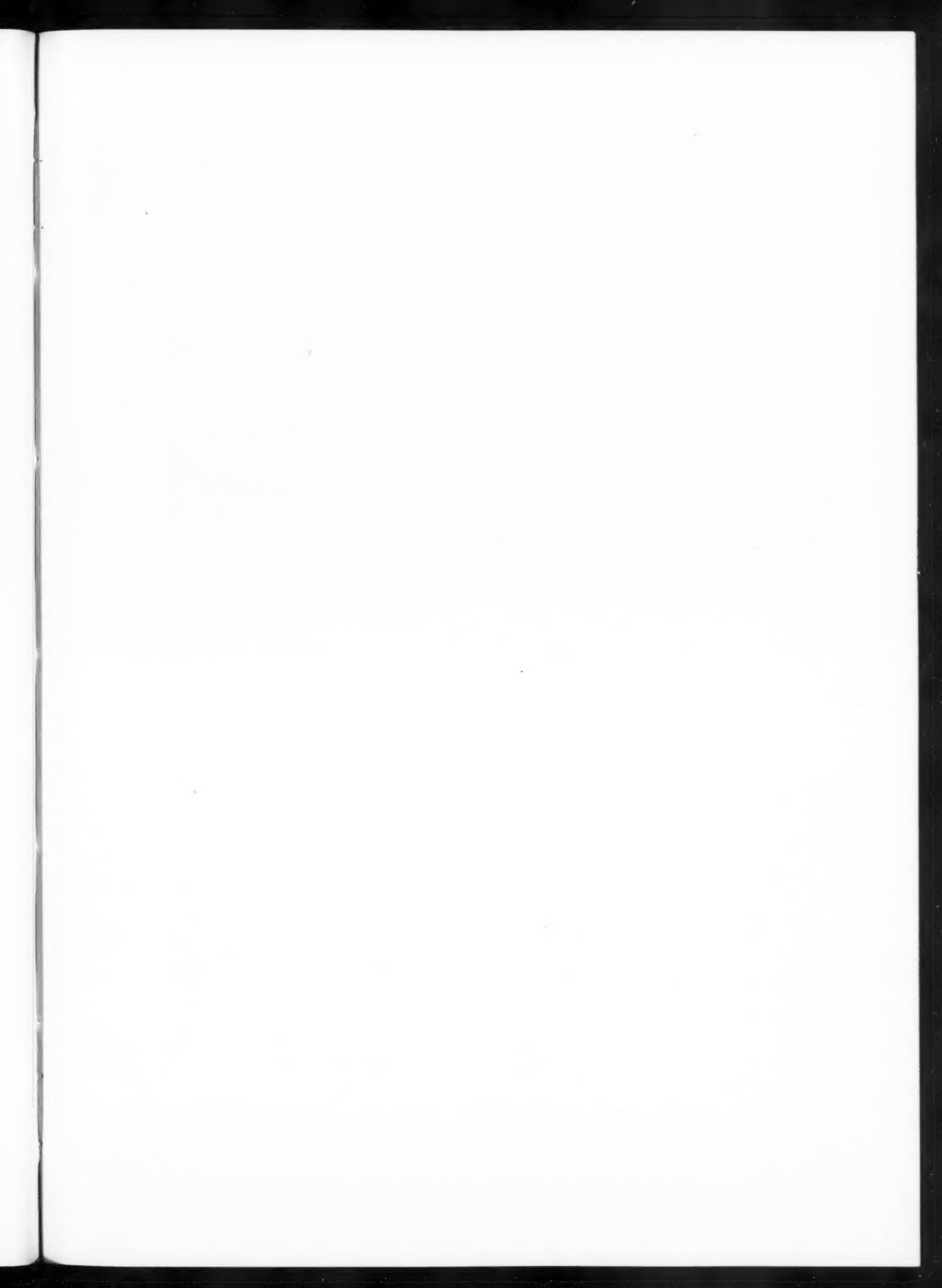
MR. JOHN J. DONOVAN AND MR. LEWIS P. HOBART, ASSOCIATE ARCHITECTS





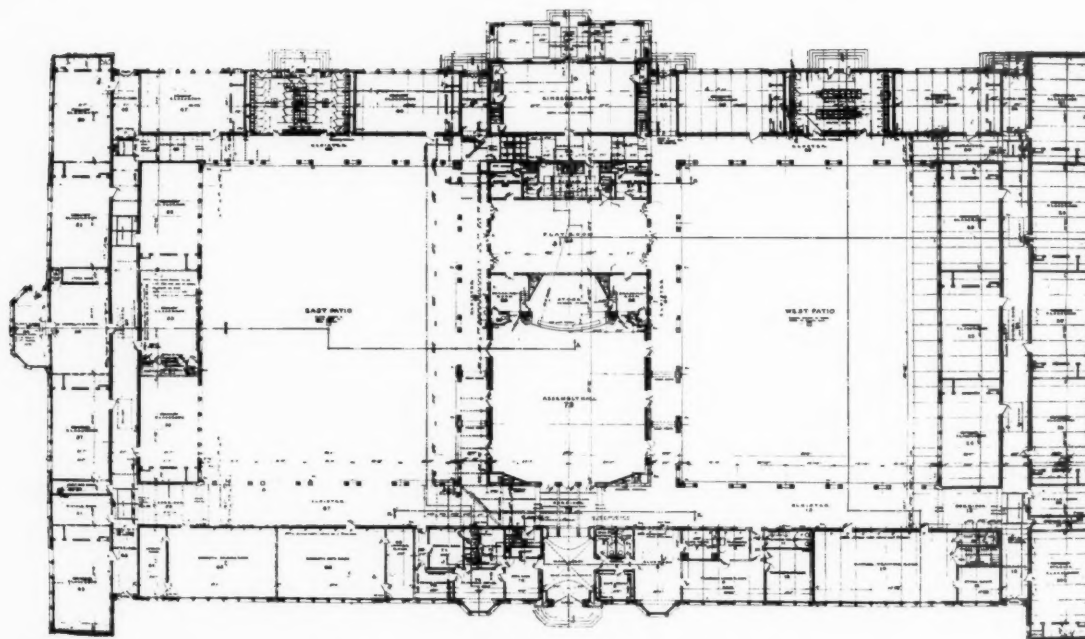
LOCKWOOD SCHOOL, OAKLAND, CAL.

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NORTH FRONT



EMERSON SCHOOL, OAKLAND, CAL.

MR. JOHN J. DONOVAN AND MR. JOHN GALEN HOWARD, ASSOCIATE ARCHITECTS



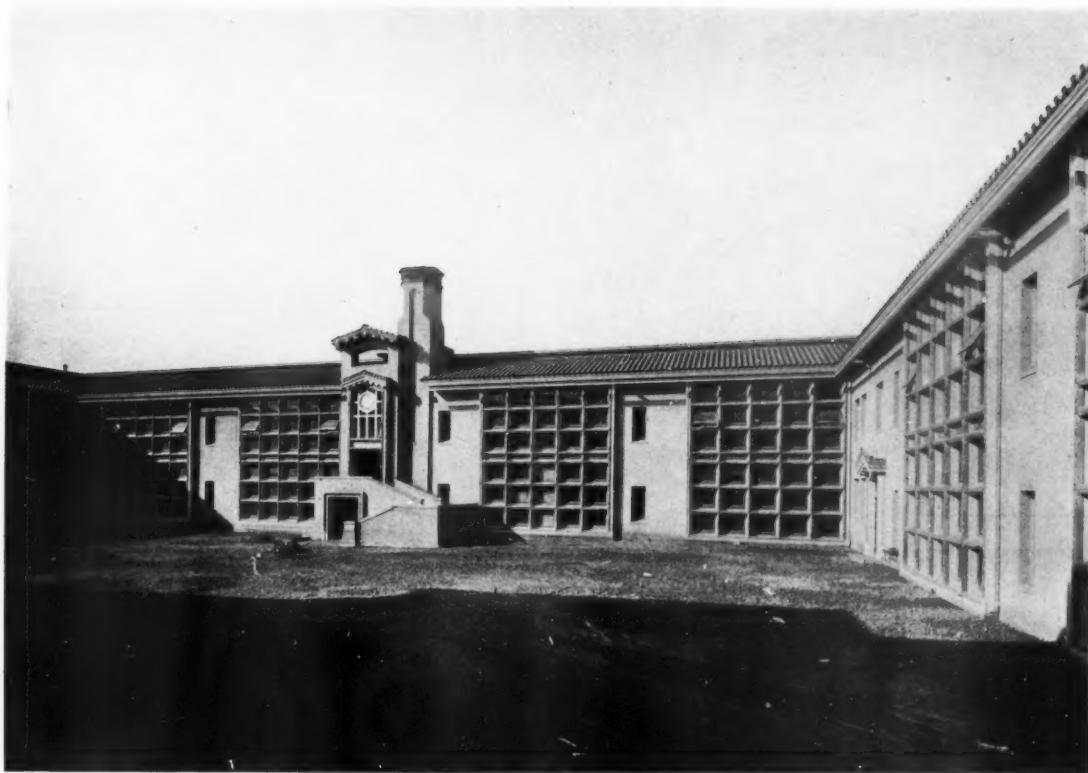


EAST COURT

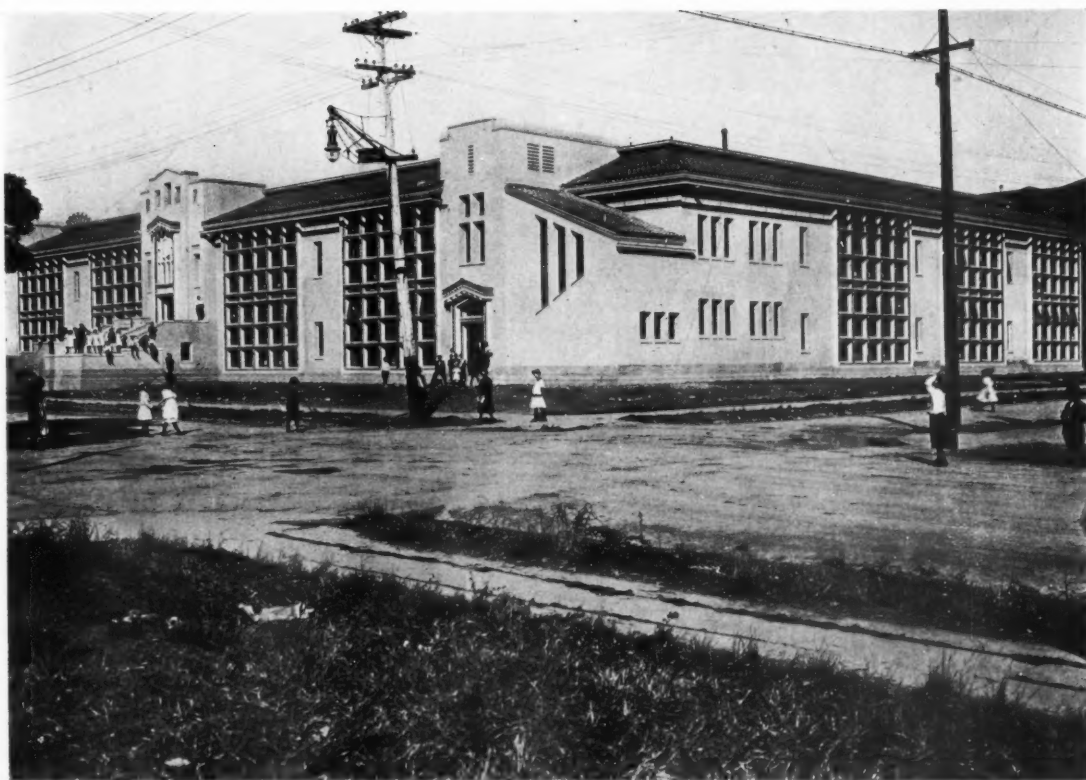


EMERSON SCHOOL, OAKLAND, CAL.

MR. JOHN J. DONOVAN AND MR. JOHN GALEN HOWARD, ASSOCIATE ARCHITECTS

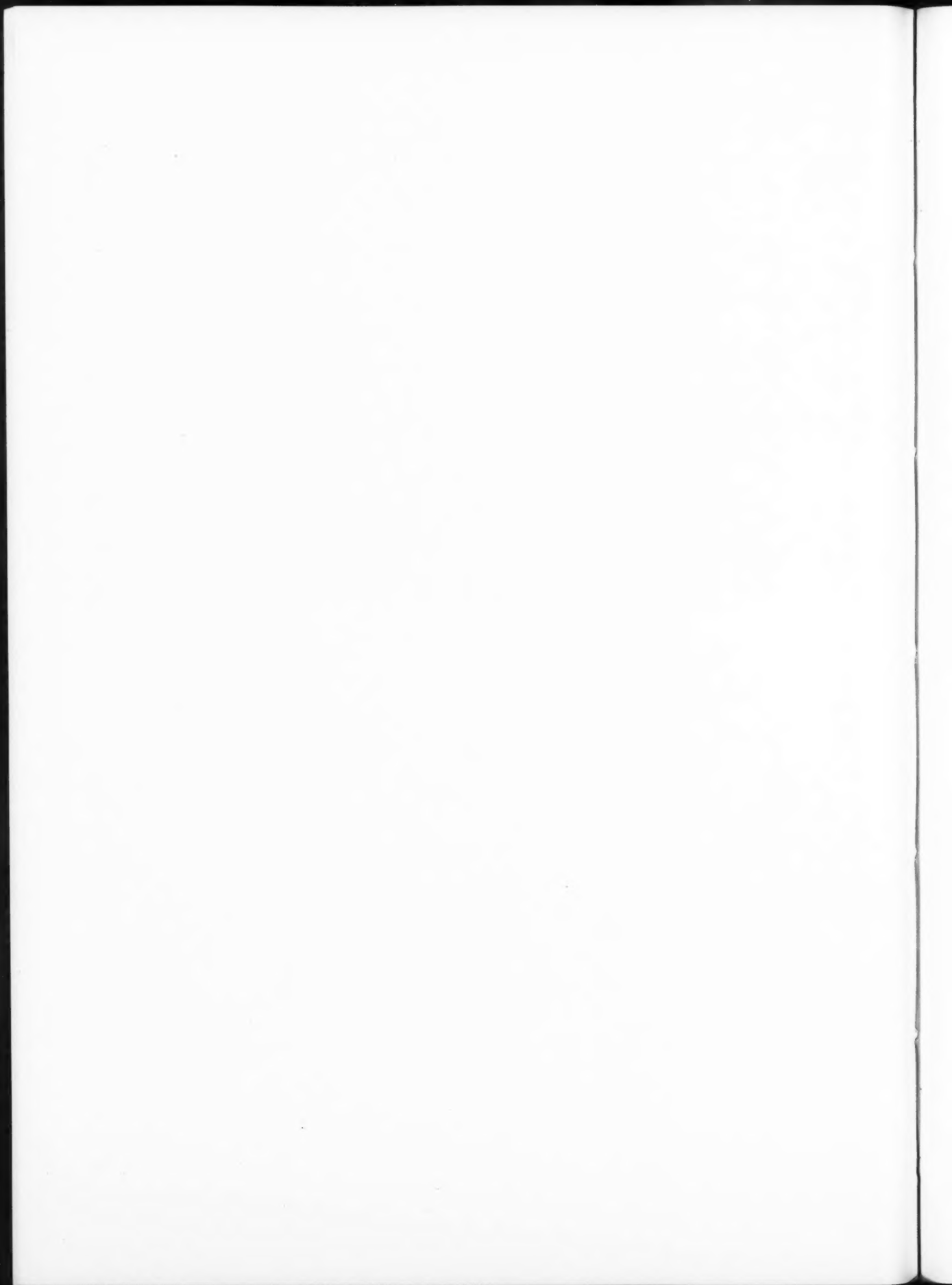


EAST COURT



DURANT SCHOOL, OAKLAND, CAL.

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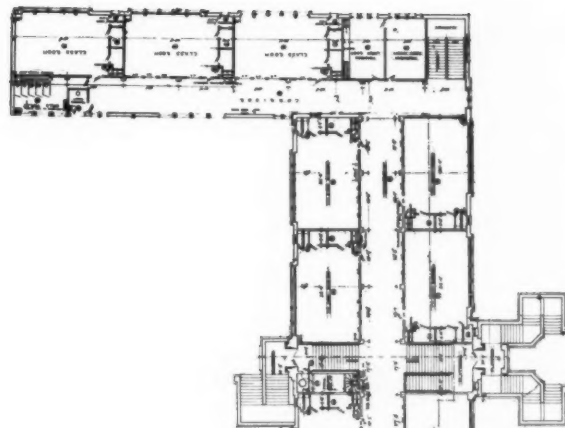
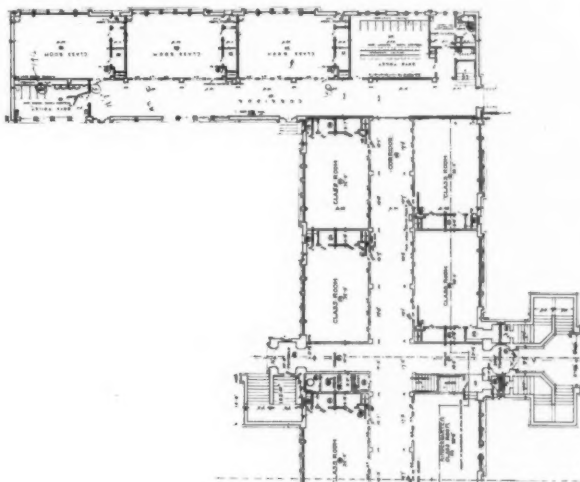
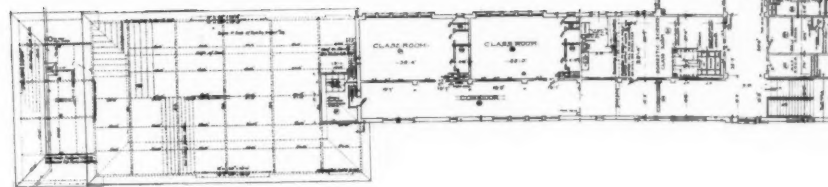
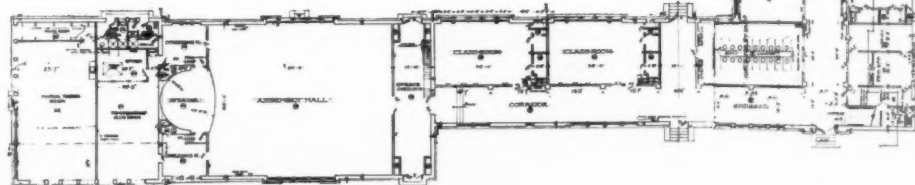


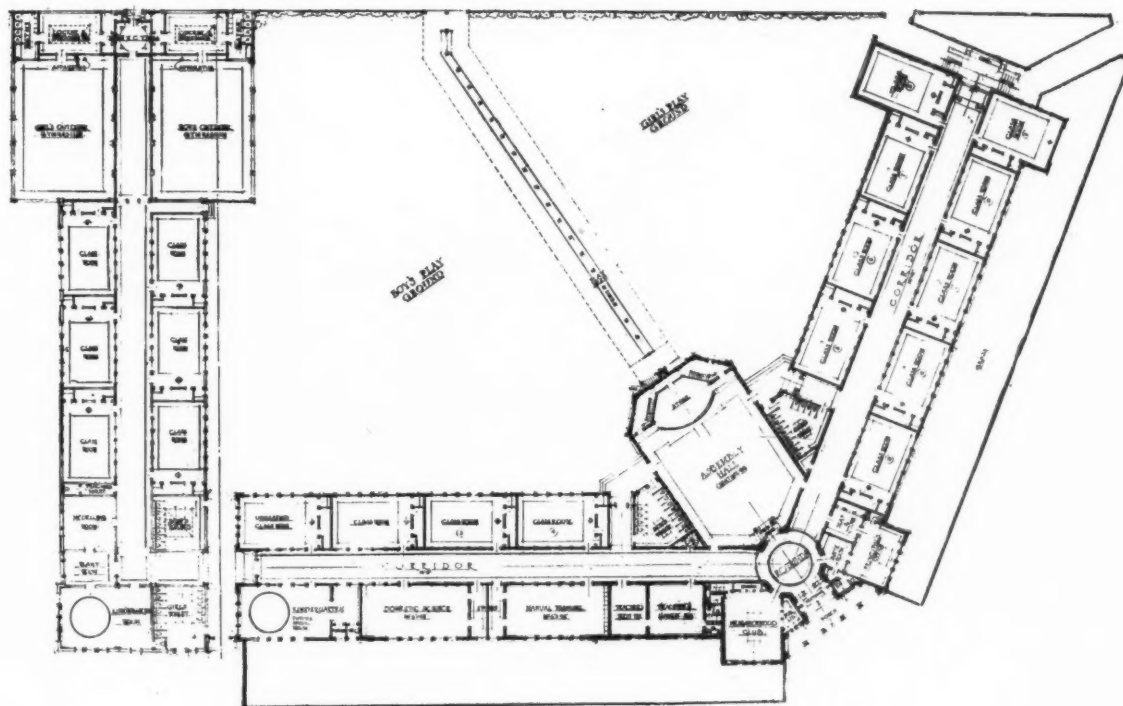
THE AMERICAN ARCHITECT

MAY 26, 1915

DURANT SCHOOL,
OAKLAND, CAL.

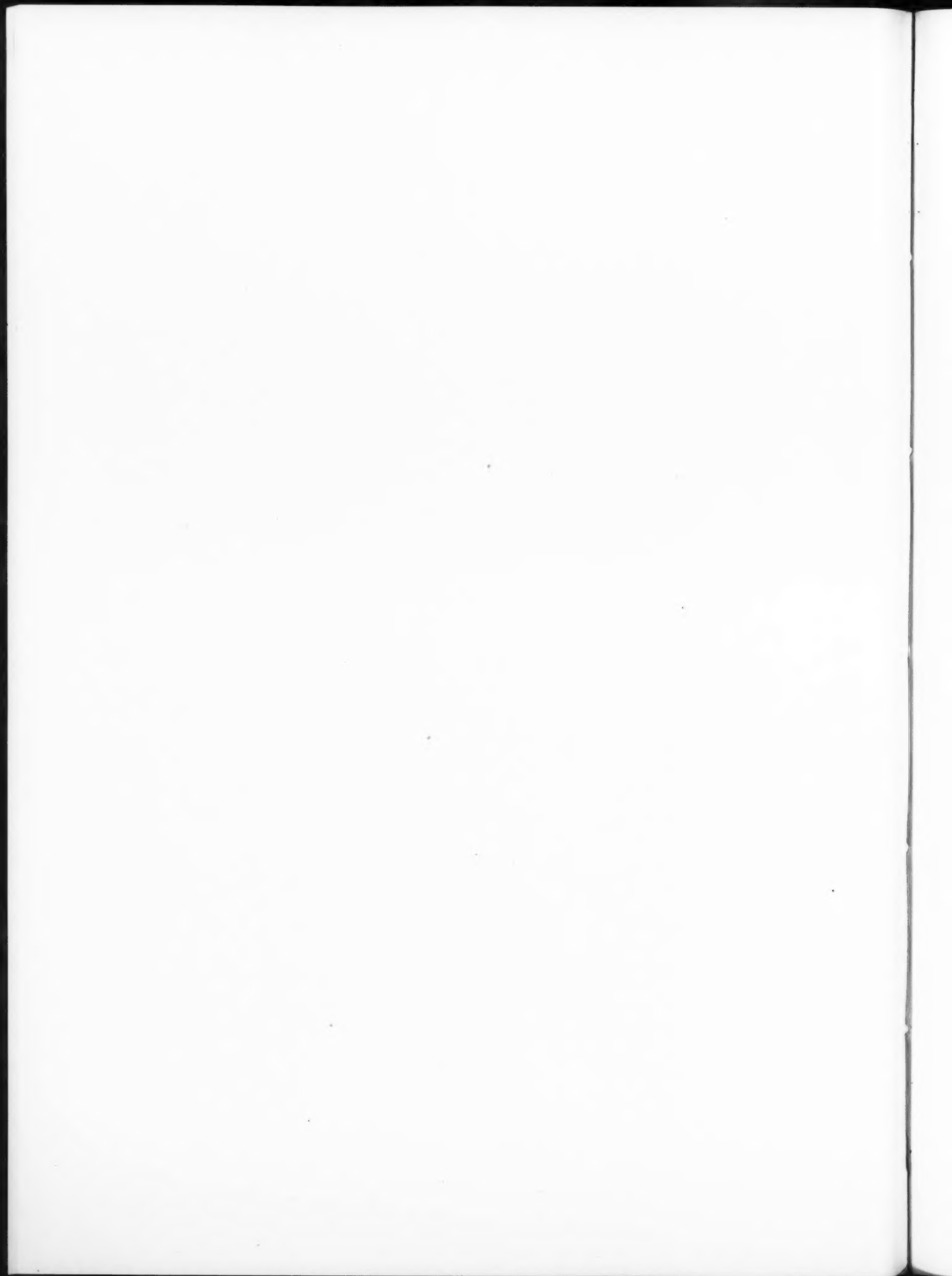
MR. JOHN J. DONOVAN,
MR. L. C. MULLGARDT,
ASSOCIATE ARCHITECTS





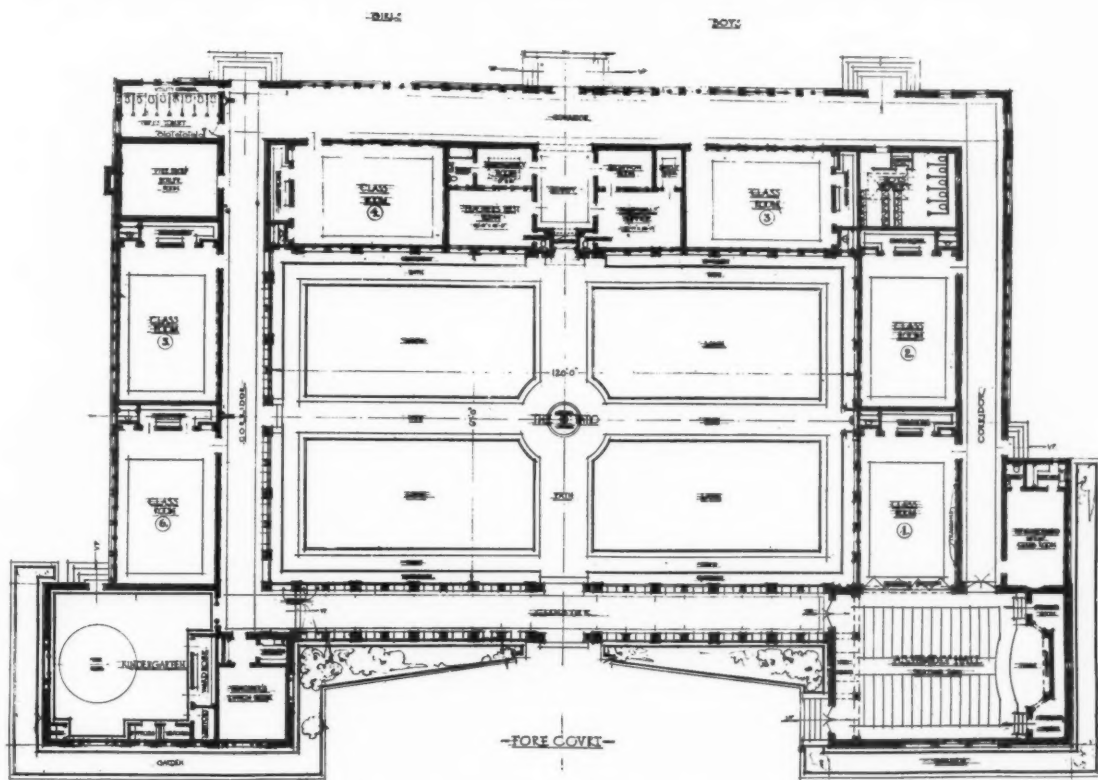
CLAREMONT SCHOOL, OAKLAND, CAL.

MR. JOHN J. DONOVAN AND MR. W. D. REED, ASSOCIATE ARCHITECTS



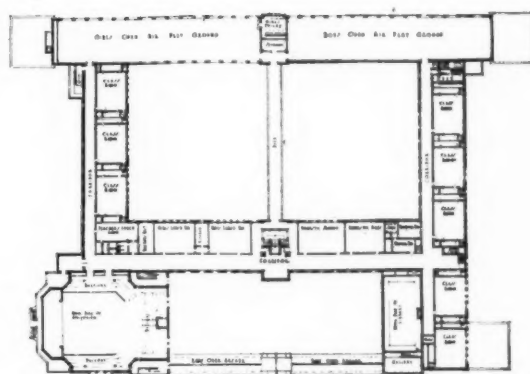
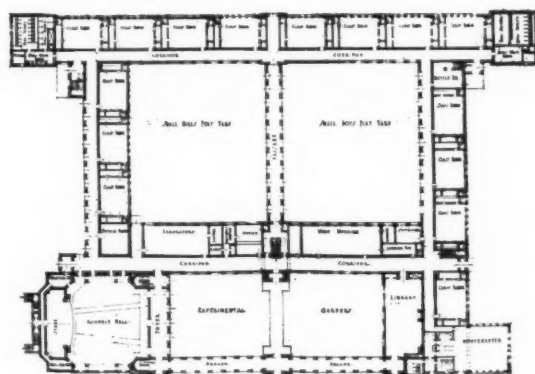


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SANTA FÉ SCHOOL, OAKLAND, CAL.

MR. JOHN J. DONOVAN, ARCHITECT



OAK PARK SCHOOL, SACRAMENTO, CAL.

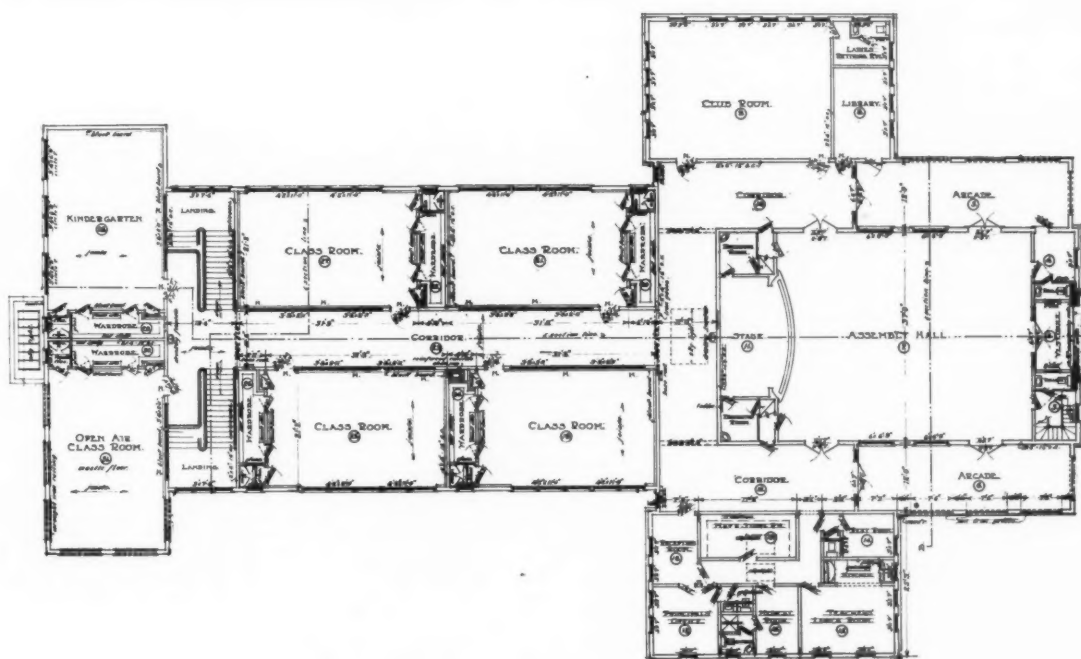
MR. JOHN J. DONOVAN, ARCHITECT

THE AMERICAN ARCHITECT

MAY 26, 1915

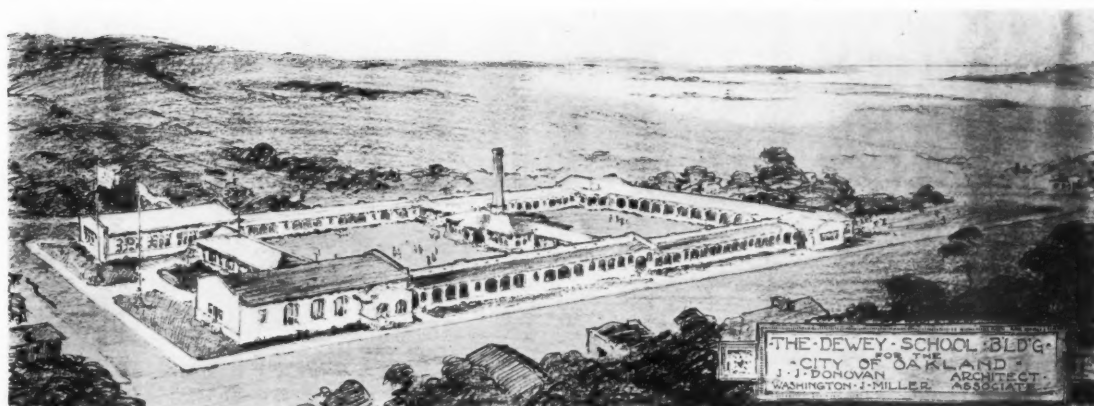


WASHINGTON SCHOOL, OAKLAND, CAL.
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CLEVELAND SCHOOL, OAKLAND, CAL.

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DEWEY SCHOOL

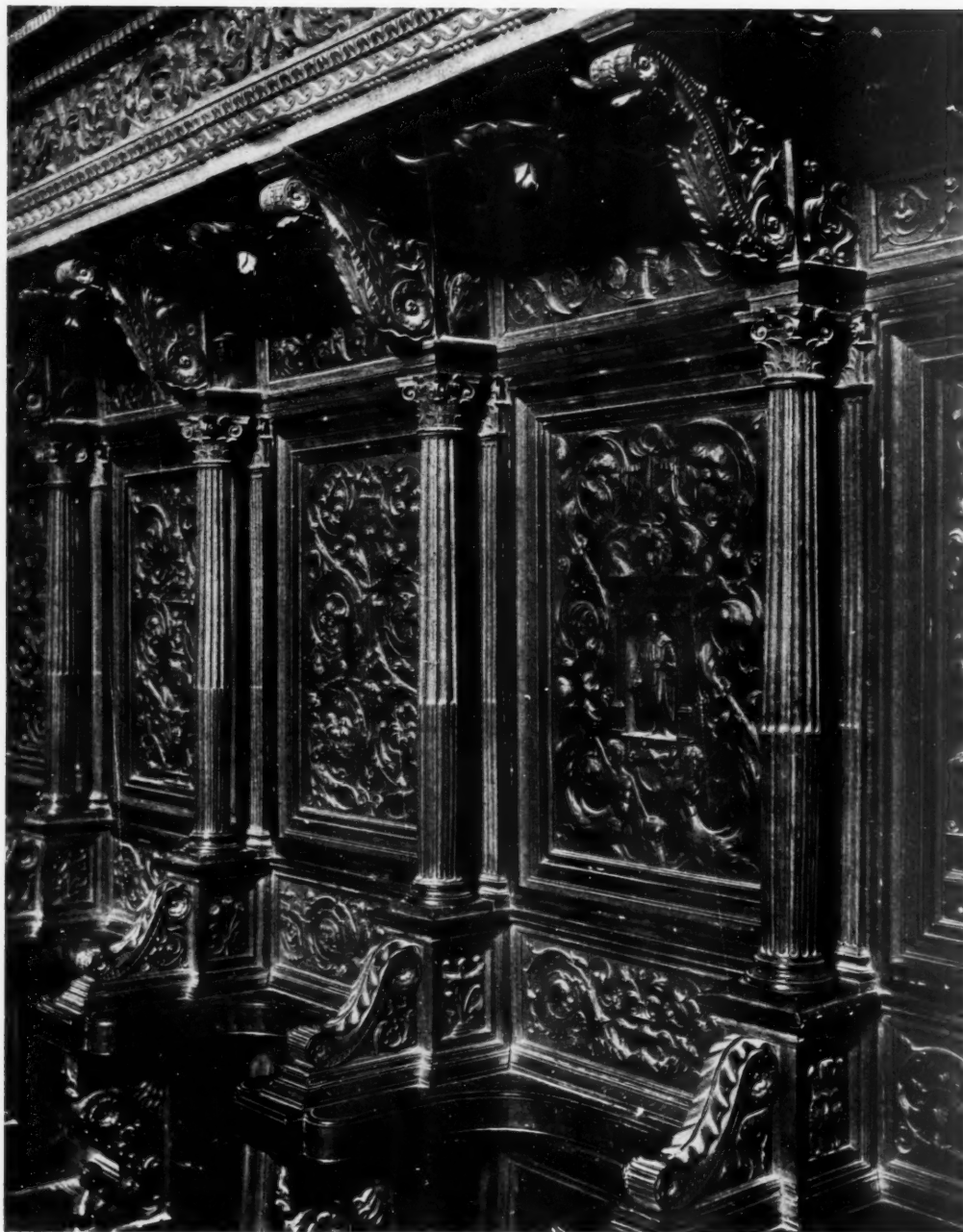
MR. JOHN J. DONOVAN AND MR. WASHINGTON J. MILLER, ASSOCIATE ARCHITECTS



FREMONT HIGH SCHOOL (ADDITION)

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THE AMERICAN ARCHITECT



3

DETAIL OF CHOIR STALLS OF CARVED WOODWORK (WALNUT)

CHURCH OF S. PIETRO DE' CASINENSI, PERUGIA, ITALY (1535)

STEFANO DA BERGAMO, ARCHITECT

