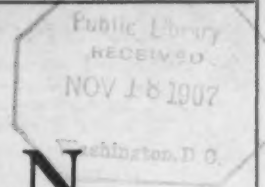


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Regular Edition

Vol. XCII.

NOVEMBER 16, 1907.

No. 1664.

SUMMARY:

Pages 153, 154

The Development of School Buildings—Medical Inspection of Schools and its Effect on School Population—"School Clothes" Suggested as a Needed Reform—New Problems for the School Architect—The Latest Phase of the Suit against the Knickerbocker Trust Company for Encroachment of City Property—An Important Contribution to the Endowment Fund of the American Academy at Rome—Water-proofing Concrete—Women in Architectural Schools.

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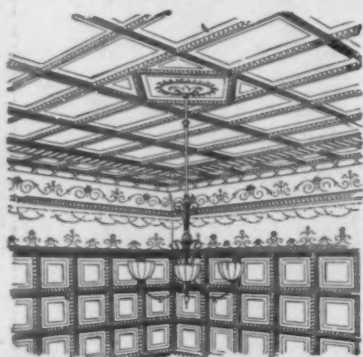
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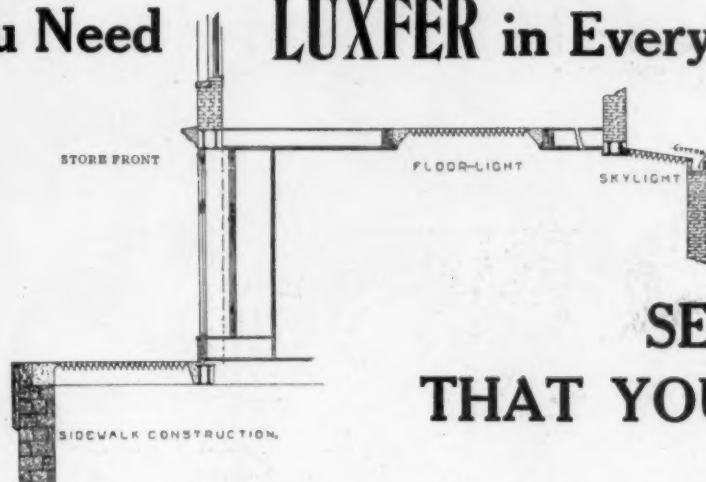
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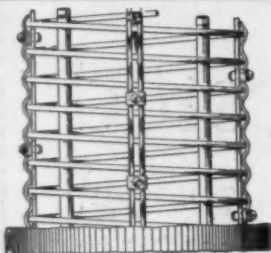
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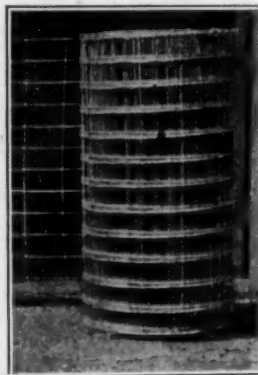
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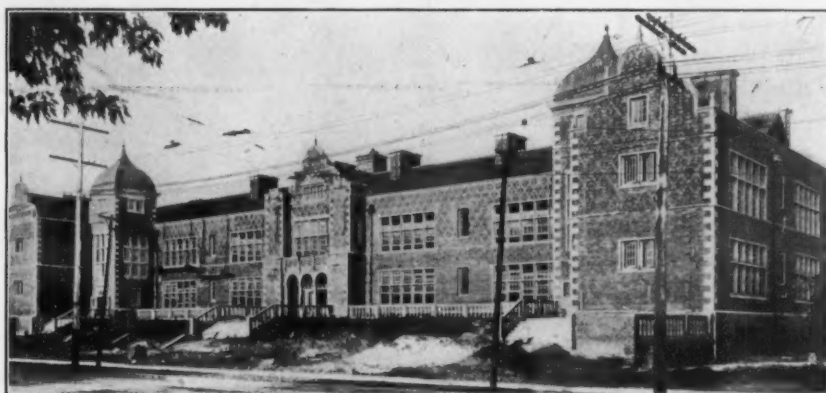
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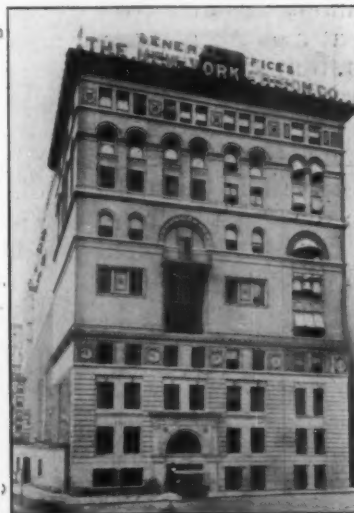
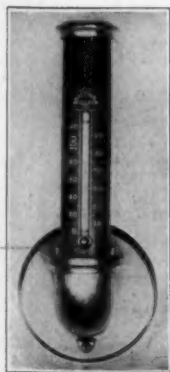
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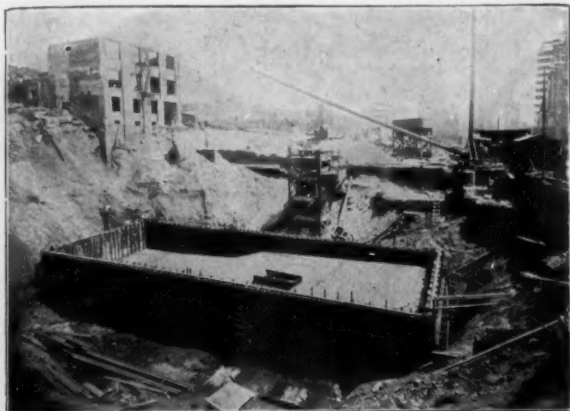
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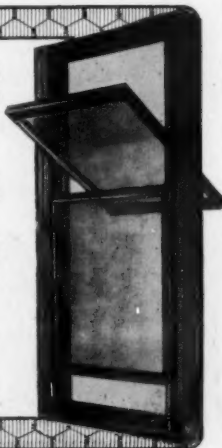
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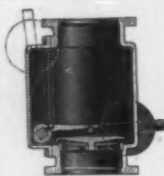
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THE difference, vast as it is, between the "little red school-house" of a country district a hundred years ago, and the huge, substantial and well-equipped urban school-house of to-day is closely paralleled by the advance from the teaching of the "three R's" during the short-winter term by pedagogues who were thorough believers in corporal punishment to the assorted smatterings of pretty much everything that are found in the school curriculum of to-day and imparted to children of all kinds of provenance by the aid of moral suasion only. The change in the scope of public-school instruction has been as impressive as has been the development in the architectural character of the school-houses. Two factors have changed, developed, perhaps improved adequately; but the third factor, the most important one of the trinity, has been unduly neglected; but there are signs that changes are impending in its behalf that are important at least, perhaps immeasurable in their potential effect. Within the last half-dozen years there has been borne in upon the great body of educators the folly, the great economic waste, of attempting to educate mental faculties that are allied to, housed in, ill-nourished, stunted or defective bodies; and yet there probably has not been for many years a school-committee that has not used in its

reports the hackneyed apothegm, "*mens sana in corpore sano*." Yet, in spite of this, committees and hygienists have devoted their thought and energies and some considerable portion of their appropriation to improving—and really improving—the hygienic condition of the school building. But at last a serious movement has begun which has as its object the fitting of the bodies of children to benefit fairly by the educational advantages offered, and these physical changes in animate nature will require changes in the inanimate structures that architects are called on to provide.

MEDICAL examination of school children is already effectively established in some cities and a few whole States, and in this movement, we believe, the oculists led the way, and naturally, for they not only are brought into contact with weaknesses of the eye caused by unfortunate lighting conditions of school-rooms, but they know how many nervous diseases are superinduced by eye-strain. Dentists in their turn, knowing how diseases of the digestive organs and general malnutrition are caused by defective teeth, followed the good example, and the general practitioner has not been slow in coming into line; so that, now, the pupils of a well-conducted public school are examined by oculists and dentists at least once a year, while they are subjected to more frequent general medical inspection, which in some cases amounts to passing daily under the eye of a competent observer. This medical inspection is supplemented in the tenement districts by the visits of a corps of trained-nurses, who follow up the cases and see that parents—where hospital treatment is not called for—give the children the proper care. Now, this new movement, if it is to have any effect—and the statistics of medical inspection in the city of New York has disclosed in a startling way the real need there is for such hygienic overlooking—will have a very distinct effect in magnifying the school population, by shortening periods of absence through giving prompt treatment at the beginning of disease; through preventing the outbreak and spread of epidemics and through curtailing mortality. This cannot but mean that more and larger school-houses will be needed, and this, of course, means more work for architects.

BUT the new movement means more than simply more work for architects; it means certain changes in planning and certain additions to school equipment. It is easy to see that the medical inspector must have his office at the school, large enough for himself and his clerk, for reports must be made and statistics recorded, and also a dispensary where first aid may be administered. It is easy to see that a more generous supply of lavatory apparatus must be provided, but it is not so apparent that a well-equipped school-house in a tenement district should have a large and effective laundry, with a drying-room of unusual capacity. Already the up-to-date school-house is equipped with cloak-rooms so heated and ventilated that wet undergarments are pretty effectively dried and aired during the school session; but more than this is needed. The well-to-do child's wardrobe is supplied

with Sunday-clothes, school-clothes and play-clothes, but the tenement child, in most cases, has to make one suit serve all its needs, and we believe that right here is a root of much evil, and if medical inspectors, hygienists and philanthropists will fix their attention on the clothes question, their work will be much simplified. The theory and practice of the ventilation of rooms, as everyone knows, is based on the computed vitiation of the air through the breathing of its occupants, together with certain allowances for exhalations of various kinds. We believe that medical inspectors and ventilating experts would do well to recognize to how great an extent damp and dirty clothing is not only a vehicle for the carrying of disease germs, but a cause of that "stiffness" which so often pervades the school-room. If it is right to spend millions of dollars yearly in educating children, it is equally right to make sure that a great economic waste is not entailed in the process. "School clothes," in the larger cities at least, might well imply that such clothes are public property, to be worn only on the school premises. Each child in the primary and grammar school grades should, on reaching school, pass to a suitable vestuary, there removing its outer clothing—to be hung in drying and ventilating closets—and donning a suit of plain and serviceable school clothes. It is unreasonable to expect anything but an economic waste if the pupil is obliged to sit through a school session in wet and dirty clothing surrounded by others equally uncomfortable and unfortunate. When this common-sense hygienic advance has been made, it is easy to see that the school-house must include a laundry, unless a central laundry is established, and that architects will be obliged to devise a new treatment for vestiaries and their accessories. Moreover, although the allegation, made a year or so ago, that many children went breakfastless to school in New York turned out on examination to be grossly exaggerated, if not altogether without foundation, the soup-kitchen and the lunch-counter have been found in many cases desirable adjuncts, and it may well happen that architects will be sometimes called on to include kitchens and dining-rooms in their school-house plans.

THE noted case of the City of New York *vs.* the Knickerbocker Trust Company has advanced another stage, and the Appellate Division of the Supreme Court has affirmed the decision of the lower court, so far as it required the removal of those portions of the building—steps and platform—that project beyond the "stoop line," but it has refused to order the removal of the posts between the stoop-line and the building-line—the handsome columnar portico, that is—declaring that this portion was not embraced in the original pleadings, and that the city must bring a new suit to effect the desired removal. As the Knickerbocker Trust Company was one of the victims of the recent financial disturbance, it is impossible now not to accord it a sympathy, which before it hardly deserved. While the "run" on the institution was going on, and certain to go against it, we could not help wondering whether the stockholders were not, among other things, feeling very doubtful whether their building was as valuable an asset as they had believed.

The one-story bank-building, so much in fashion just now, is really nothing so much as an advertisement, a notice served on the public that the bank is so strong that it can afford to do without the income that might be derived from the dozen or fifteen stories that might have been built above its quarters on the same site. It is good advertising perhaps, but when disaster comes a well-rented skyscraper is a more valuable asset than a one-story building, which can hardly be used for any other than banking purposes.

SO many undertakings must be stayed or remodeled because of the recent financial disturbance, so many promised contributions to this, that and the other deserving undertaking must unwillingly be cancelled, that it is pleasant to know that so eleemosynary an enterprise as the American Academy at Rome is not likely to be seriously embarrassed because contributors to its endowment have been caught on the wrong side of the market. The Society of Beaux-Arts Architects, which, as we explained, has substituted itself for the University of California, as a contributor of one hundred thousand dollars to the endowment fund, announces that it has just received from a single contributor, whose name is not to be announced at present, the sum of twenty thousand dollars. We hope that this presages that the Society will meet no great difficulty or delay in raising the balance of its quota.

THE constant exhortations addressed to women that may be found on the "woman's page" of the Sunday newspaper and elsewhere, urging them to take up the study and practice of architecture, has borne fruit at last with some abundance, and, it may be hoped, of good quality. The authorities of Columbia University are said to have been rather staggered at finding so many women taking advantage of a new rule that allows them to register in the School of Architecture, about a fifth of the whole number of students enrolled proving to be women. As these pupils came in the main from Barnard College and Teachers' College, near by, it is fair to assume that those students enrolling from the latter institution have a maturity of purpose that will make them no inconsequential rivals of the usual male undergraduate.

THE experiments on concrete mixtures made by Mr. Richard H. Gaines, Chemist of the New York Board of Water Supply, and reported in the Transactions of the American Society of Civil Engineers, seem to prove that the addition of from 2½ to 5 per cent. of alum solution with the mixing water renders a concrete almost impermeable by water and that the use of a colloidal clay to the extent of from 5 to 10 per cent. of the sand in the aggregate produces a mortar which is not only practically waterproof but is also considerably stronger both under compression and tension than the ordinary sand-and-cement mortar. As we understand it, the results reported were obtained by laboratory tests on small samples. It is much to be hoped that further tests on a larger scale will be made, as the question of waterproofing concrete is one of great present importance.

St. Louis Public-School Buildings

By WILLIAM B. ITTNER, F.A.I.A.*

THE public-school buildings of Saint Louis are built to accommodate all the grades; that is, pupils may pass through all the grades from the kindergarten to the eighth grade, from which they are prepared to enter the high or secondary school.

As a rule the buildings will accommodate about 1,200 pupils and contain twenty class-rooms, a kindergarten room, the equivalent of two class-rooms, a room for domestic science, a manual training room, a principal's office, two gymnasiums and play-rooms, toilets for pupils and teachers, and the necessary space for the heating and ventilating apparatus, fuel, etc.

In plan these buildings show a number of radical departures from the conventional type of school building, wherein the central corridor lined with rooms and wardrobes on either side is necessarily dark and without adequate ventilation. The effort has been to introduce outside light into the main corridor throughout the greater part of its length, insuring the penetration of sunlight to all parts of the building during some part of the day, and to arrange the wardrobes for outside light. It will also be noted that wardrobes are entered from class rooms only. This arrangement, though unusual, is found to give the teacher absolute control, adding to the decorum of the school, as well as enabling their perfect ventilation; the air current entering the room at the inner wall, making the circuit of the room, passing through the opening to and along the entire length of the wardrobe to the vent.

floor. Several lines of flush metal picture moulding are provided for the hanging of casts and pictures.

The stairways are placed at the ends of the main corridor and central to the group of rooms on either side of the central axis of the building.

They are always 5 feet wide, with ample landings, and are built with solid concrete balustrades; the risers and skirtings are of marble, while the treads are asphalt 1 inch thick. Treads of this character are not only non-slipping and practically noiseless, but are easily replaced when worn out.

The purchase of ample sites has made it possible to limit the height of the buildings to two stories. The basements are 15 feet in height and are placed well out of ground. Where possible, a level entrance from play-ground to basement floor is provided, while the principal entrance leads directly to the first floor.

The first and second stories are 12 feet 6 inches in height, the ceilings unobstructed by beams and with window heads brought directly thereto.

All buildings are of fireproof construction, except the pitched roofs, in which cases, for economical reasons, the roofs are of mill construction covered with 1 3-4-inch matched sheathing and tile. All outer and interior bearing walls are of hard brick laid in Portland cement mortar. Interior non-bearing partition walls are of hollow tile, and the buildings are plastered with cement plaster.

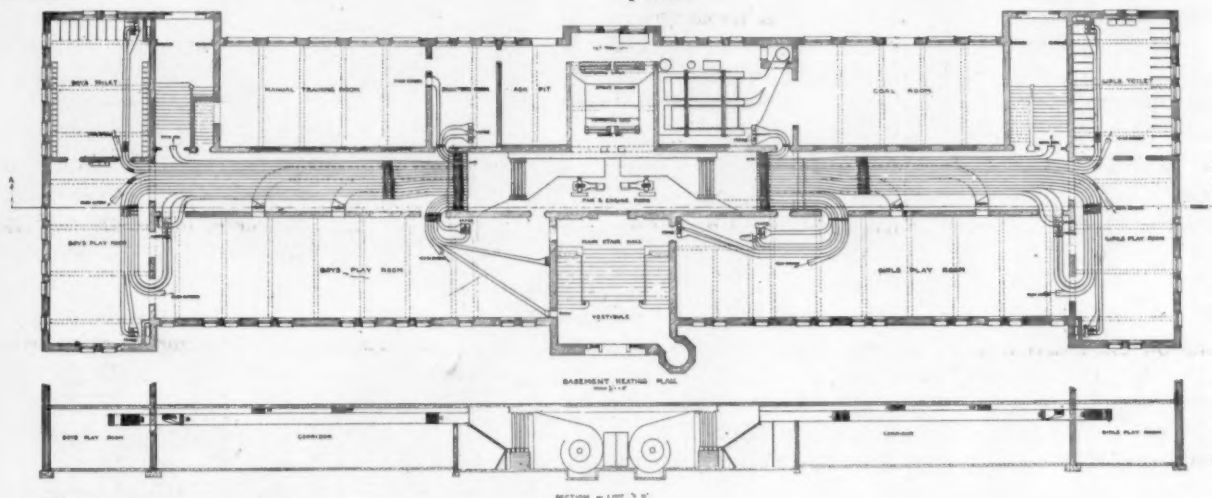


FIG. 1.

The general plan developed by these requirements is necessarily more or less similar in all of the schools, approximating in form the letter E. In all cases the sites have been wisely selected to permit ample space surrounding the building, affording generous play-grounds, as well as good light and air.

The class-rooms are 24 feet wide, 32 feet 6 inches long, with a clear story height of 12 feet 6 inches; they are arranged for left-hand lighting only, the glass surface in no case being less than one-fifth of the floor area. The class-rooms accommodate 54 pupils in the lower grades and intermediate grades, and 48 in the higher grades, and are equipped with single seats. Natural slate blackboards are placed on the three inner sides of the rooms, are 3 feet 6 inches in height and range from 2 feet in the lower grades to 2 feet 5 inches in the upper grades from floor to the chalk rail.

The wardrobes are 5 feet 3 inches wide, 16 feet long, and are provided with shelves and sixty hooks on the side walls, a portable umbrella rack is also provided for each wardrobe. A book-case containing 65 running feet of shelving, a bracketed shelf over the blackboard at the front of the room, and a picture moulding completes the equipment of the class-room.

The corridors are 14 feet wide, with ample outside light, and give direct access to all class-rooms and the stairways on each

The floors are constructed of armored concrete and finished with narrow maple flooring smoothed and oiled. Basement floors are of granitoid or cement.

In exterior design the effort has been to avoid the use of extravagant material and ornamentation and the straining for effect not justified by the function expressed in the plan. In most instances the buildings are faced with ordinary hard and red brick mixed as to color and laid up with a large bed joint in garden wall or Flemish bond. Stone is used sparingly, and no attempt is made to accent any part of the building except the main entrance, which is generally dignified by fitting architectural treatment.

The interior finish is reduced to the minimum, such woodwork as is used is of oak in plain design. Class-rooms and corridors are painted in lead and oil, the colors being carefully selected with respect to the location of each room and its relation to the point of compass. A simple stencil frieze is provided for each class-room, while the kindergartens are decorated with mural paintings typifying the life of childhood. Walls and ceilings in the basement are coated with cold-water paint.

The plumbing is of the most approved sanitary type. Individual seat action closets are provided in the general toilets in the basement, and the emergency toilets on each floor for the pupils. The urinals are of glass, are automatically flushed and are of the ven-

*Commissioner of School Buildings, St. Louis, Mo.

tilated type. Special provision has been made for the ventilation of the toilet rooms. Drinking fountains are installed in the corridors in the basement and play-grounds.

Each room is provided with a self-winding electric clock, regulated from a master clock with program ringing device located in the principal's office.

The entire building is wired for electric lighting, the fixtures used being of the short-stem cluster type, equipped with holophane shades.

Aside from their desirability on the score of light and air, the large school sites have not only provided ample play-grounds, but have given opportunity in a modest way for object lessons in the art of landscape gardening, and each school ground has been made to present some distinct instructive feature, awakening an interest in the knowledge of decorative plants and their use in the embellishment of the home and the city at large.

All buildings are designed for a low-pressure steam plenum system of heating and ventilation, this work being carried on simultaneously with the plans of the building.

This washer removes practically all foreign matter from the air by passing the same through finely divided sprays of water. An eliminator removes all excess free water from the air before it comes in contact with the next tempering coil.

The air enters through intake windows, indicated at top of plan, and immediately passes through the first tempering coils. The steam supply to these coils is controlled by a thermostat located in the intake and automatically turns steam into the coils at some point before the outside temperature reaches the freezing point, thus protecting the washer from freezing. By-pass doors are located at the side of coils and these are gradually opened or closed by a thermostat located immediately past the eliminator. Thus a constant temperature may be maintained for the air as it strikes the washer. This is a matter of considerable importance, as it has a bearing on the ultimate relative humidity of the air.

After passing the eliminator, the air meets the second set of tempering coils, which brings the air up to a temperature of 70°. The air then divides and passes into the two fans.

Referring to the "Section of Fan and Engine Room," each fan

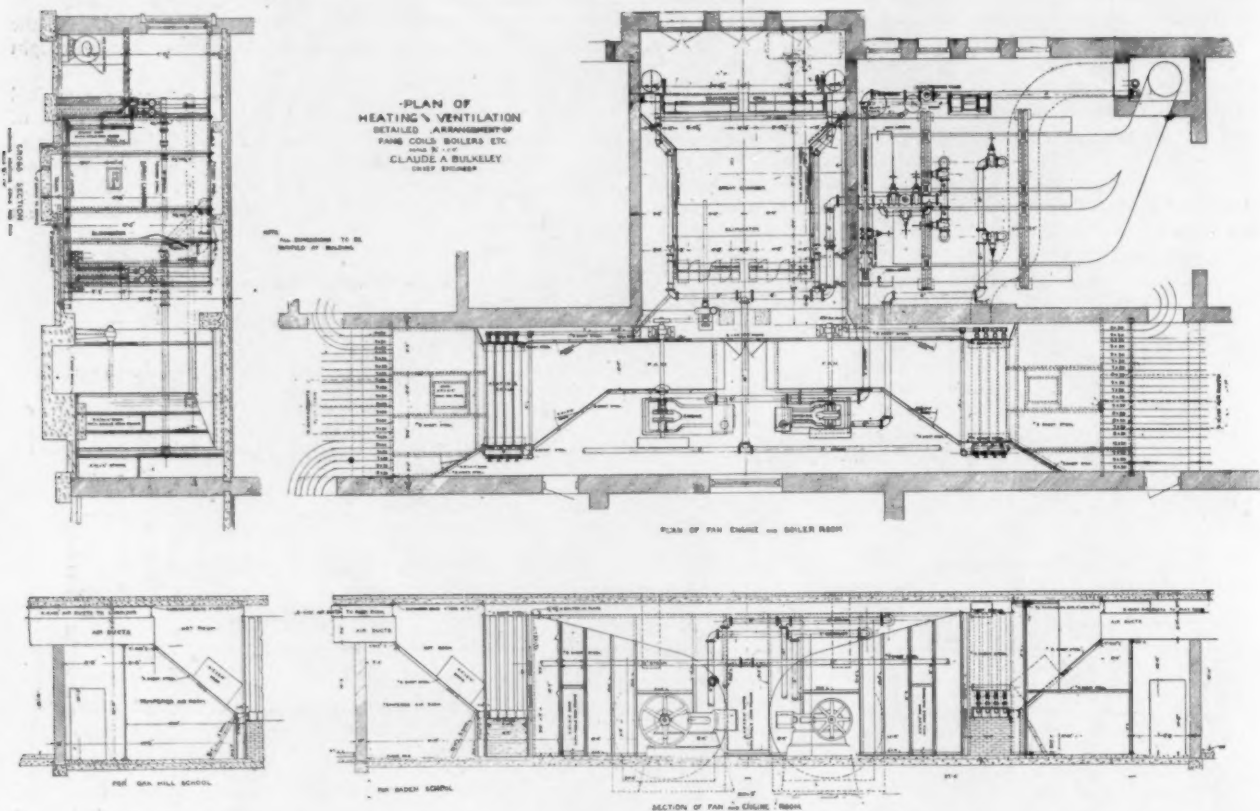


FIG. 2.

Fig. 1 gives the general basement layout of the heating and ventilating apparatus for the New Baden School, now in course of erection. The main portion of this building is to be two stories in height above the basement, with an ample lecture room located on the third floor. There are eighteen class-rooms, a kindergarten and domestic science rooms, making an equivalence to twenty-one class-rooms.

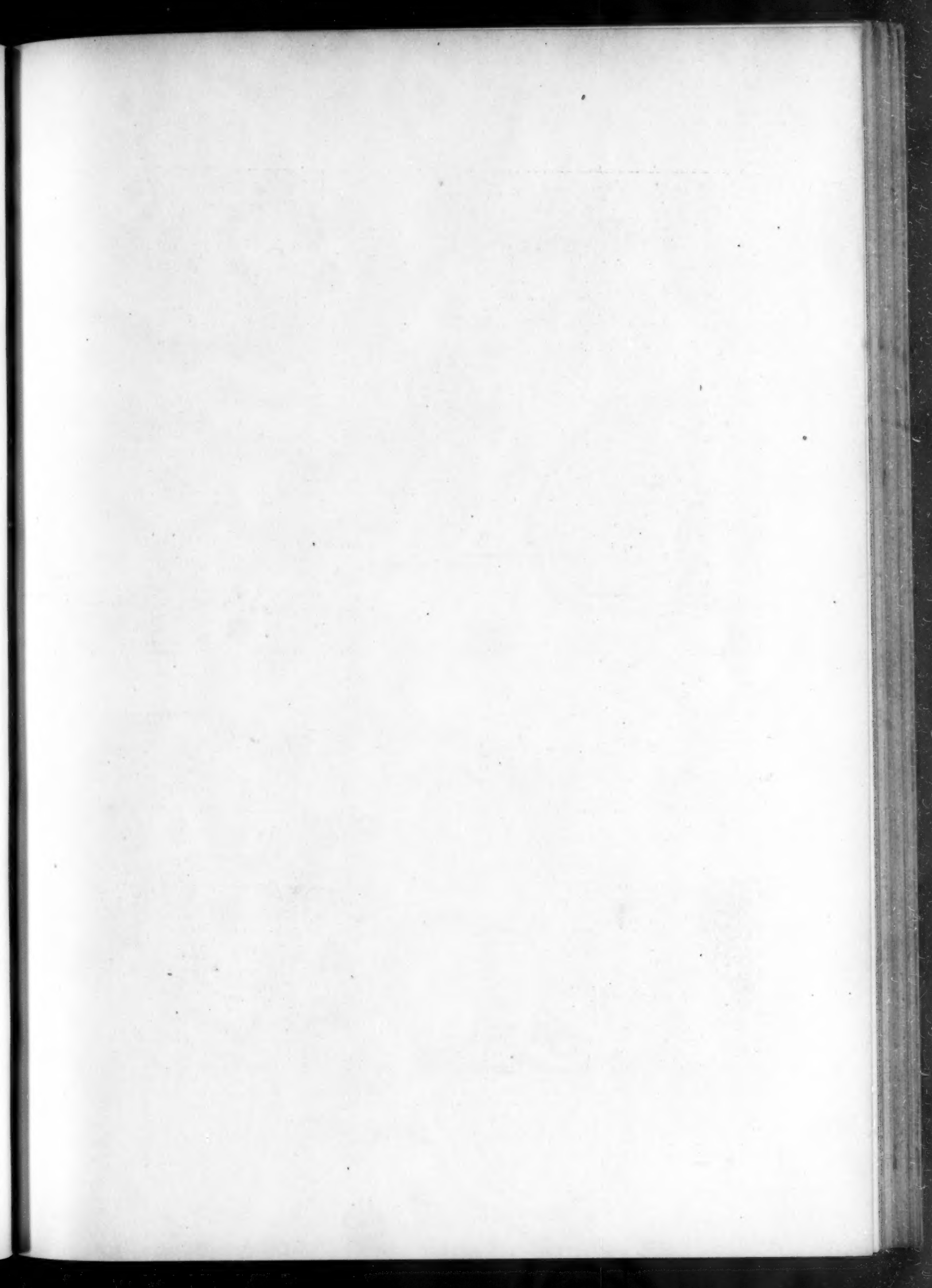
The mechanical equipment is designed to furnish the air for ventilation at a sufficient temperature to make up for all losses. Thus there will be no unsightly piping or radiators to contend with in any portion of the building. Each duct, with its sizes marked, runs to risers H-1 or H-2, according to whether it leads to a first or second floor room.

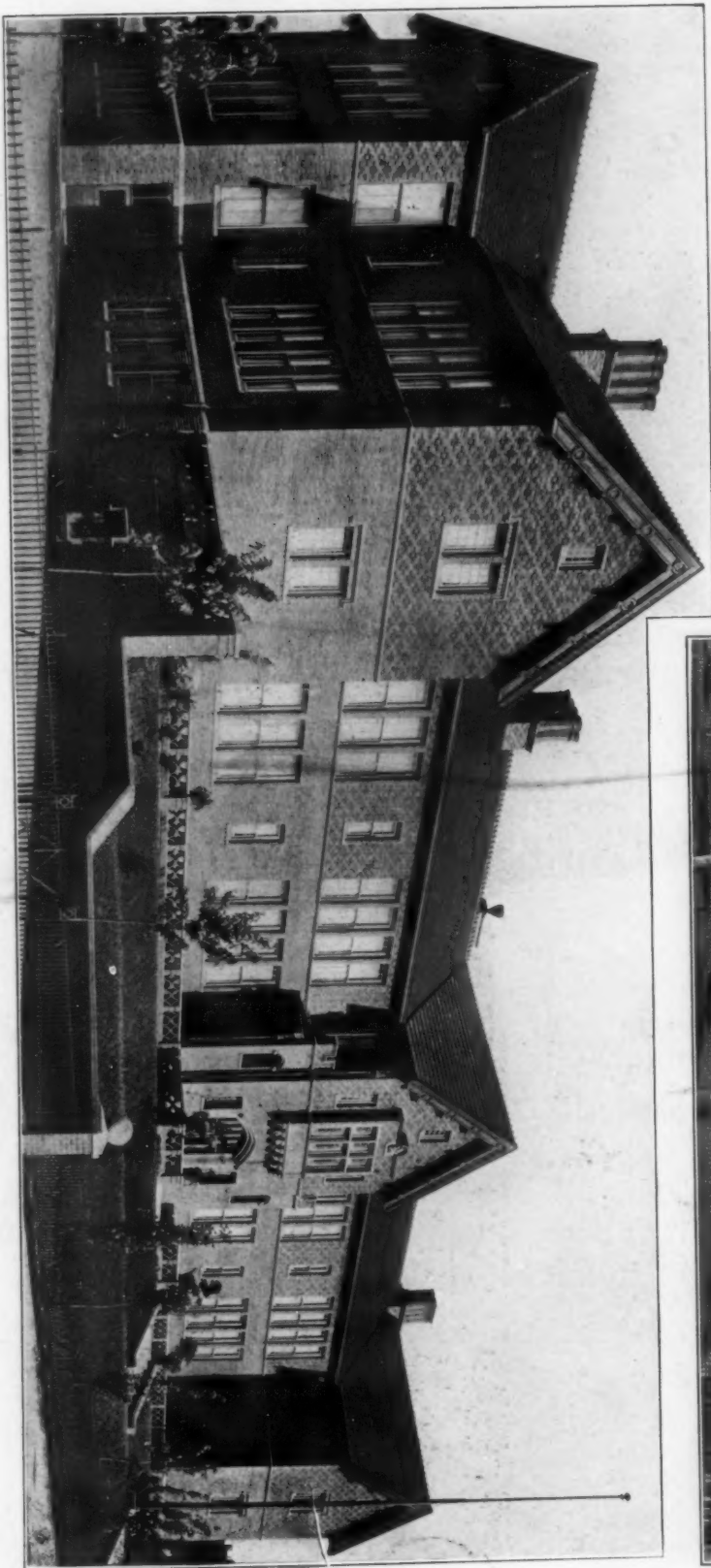
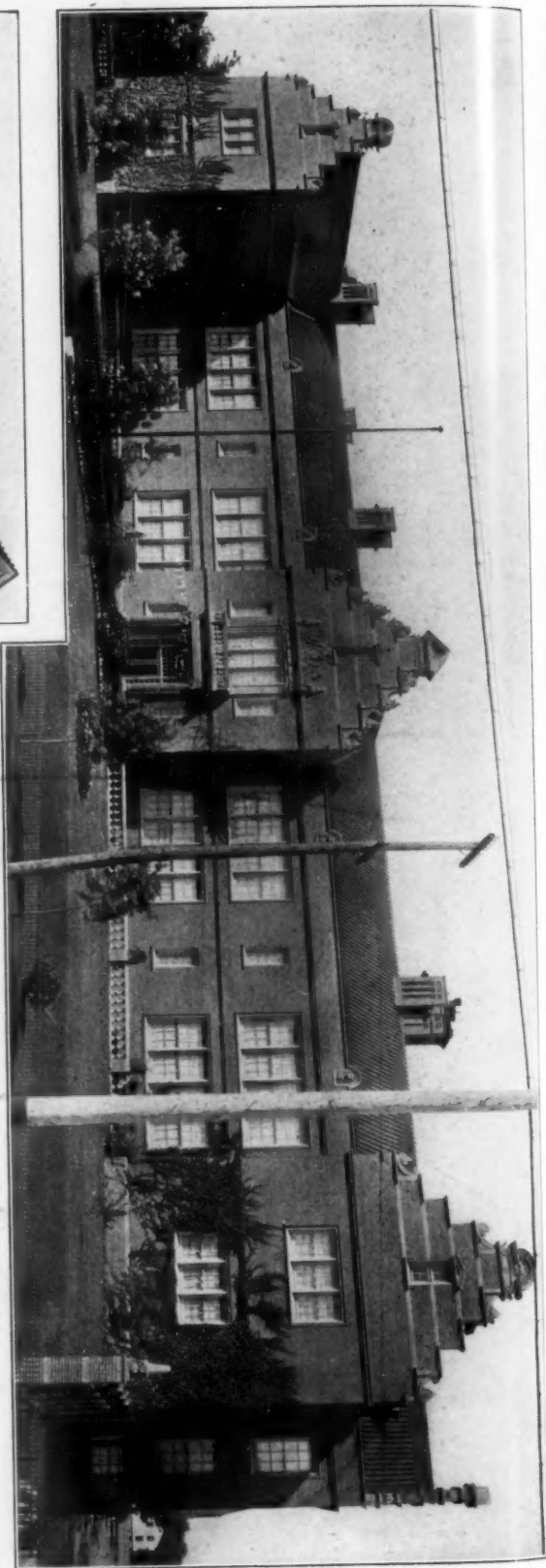
For a detail of the apparatus, reference is made to Fig. 2. The plant is designed to operate under a steam pressure of 15 pounds, with a back pressure of 2 pounds in the coils. The installation consists of two 8 ft. x 4 1-2 ft. fans, direct driven by 15 in. x 10 in. and 18 in. x 12 in. engines. The larger engine drives the centrifugal pump for the air washer, in addition to pulling its fan. This washer is located between the two sets of tempering coils in space marked "spray chamber."

drives the air through the heating coils into the "Hot Room," and under the same coils into the "Tempered Air Room." Thus the tempering air is not heated after leaving the fan. A thermostat is located in this latter compartment, for controlling the by-pass doors under the second set of tempering coils, thus maintaining a constant temperature of 70°. Tempered air, hot air, or a mixture of the two is forced by the fan into the "Air Ducts." A thermostat located in each class-room controls the proportionate quantities by means of mixing dampers, and thus a temperature is maintained varying not in excess of one degree either side of a given point.

A fresh air supply of 30 cubic feet per minute is allowed for each pupil. This necessitates about eight complete changes of air per hour in every class-room. Since the corridors and basement are occupied intermittently, four changes per hour are planned for these localities. All plants are designed to secure these results with a safe margin of reserve in case it should be required for any reason.

The boiler installation consists of two 60 in. x 16 ft. return tubular units equipped with down-draft furnaces. One boiler will do the work at all times except in extreme weather, when





BLOW SCHOOL AND SHEPARD SCHOOL.

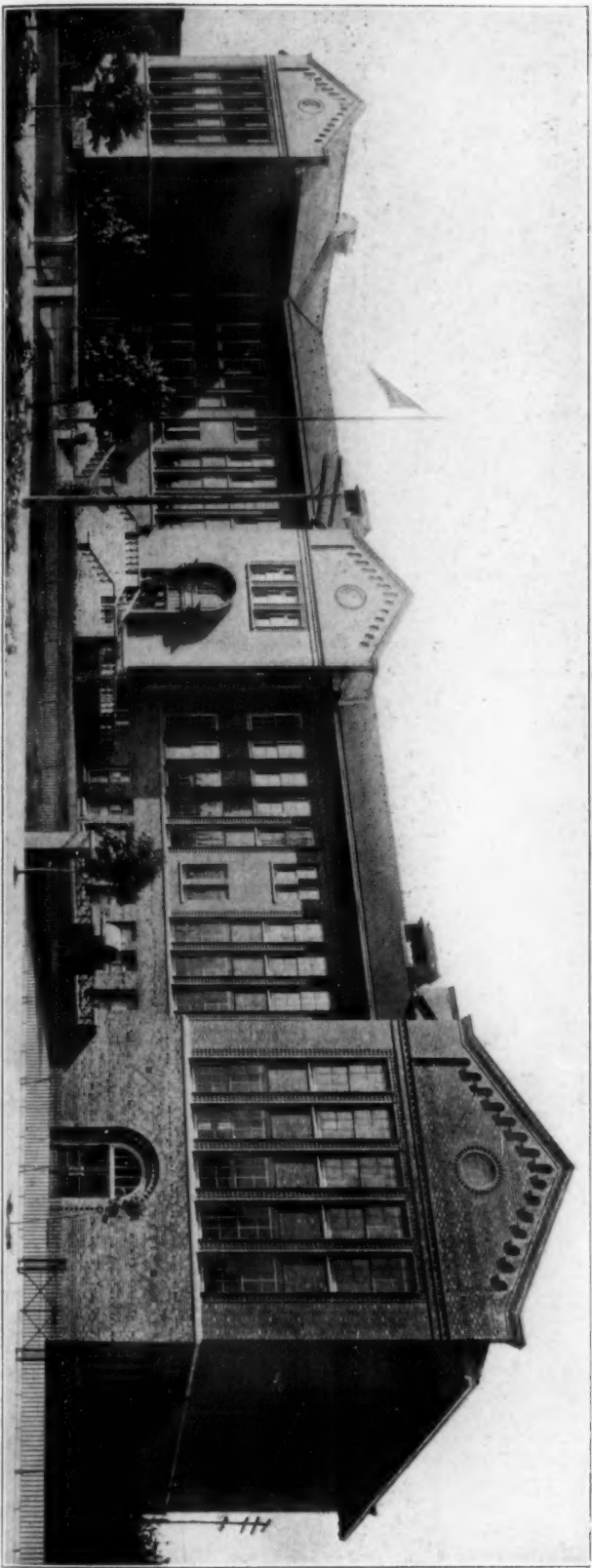
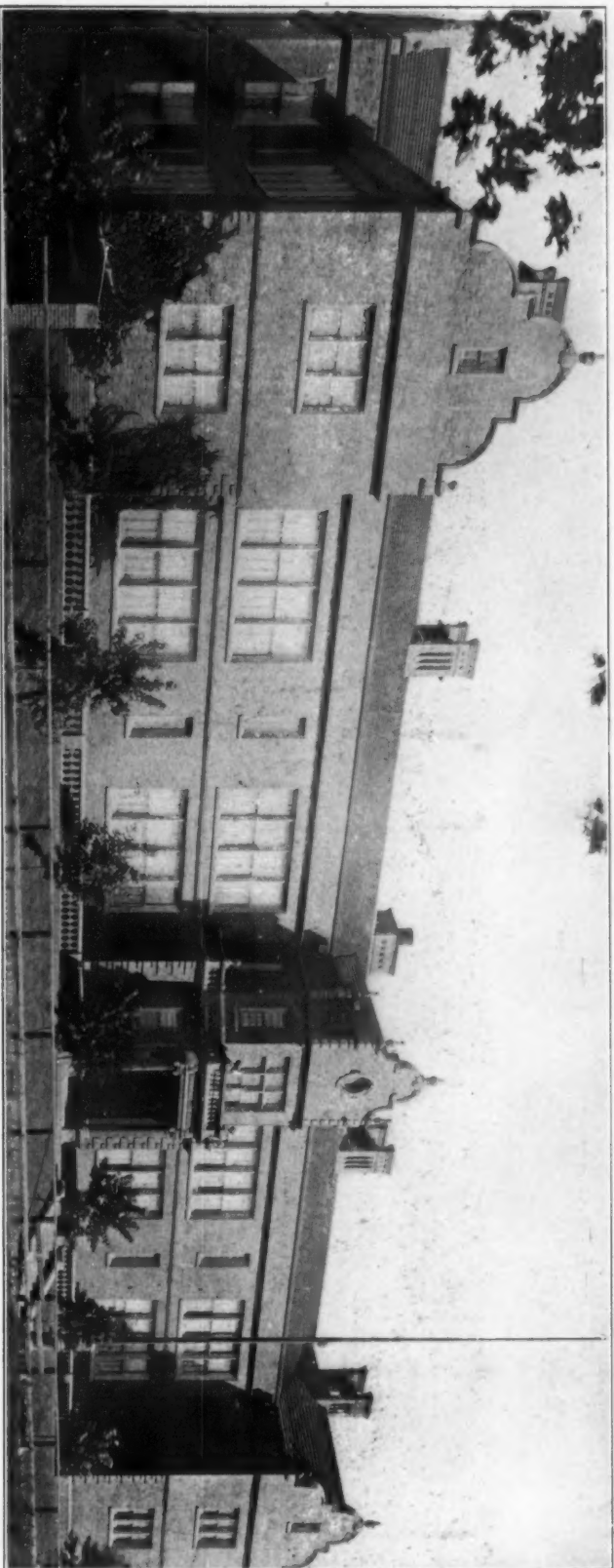
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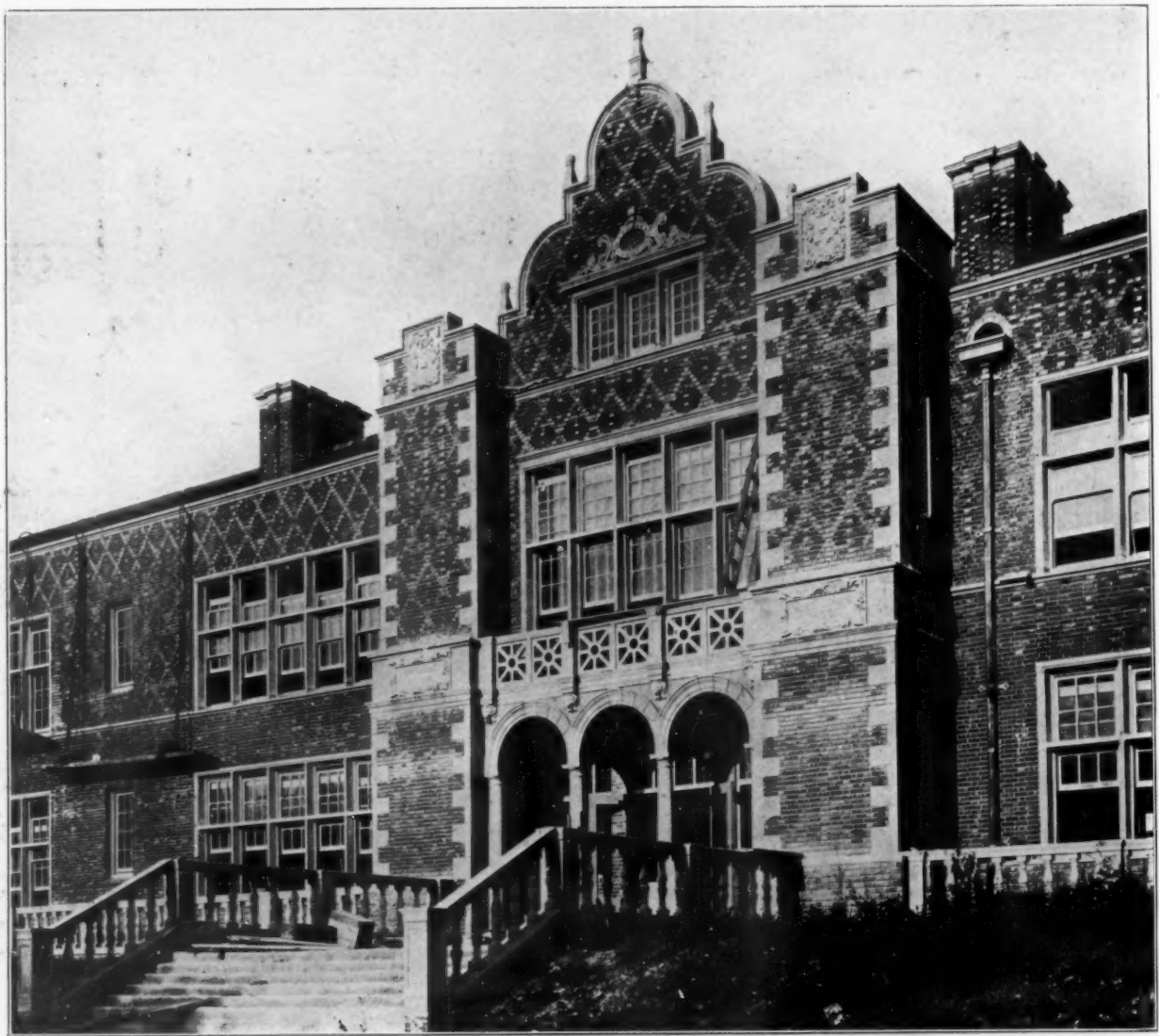
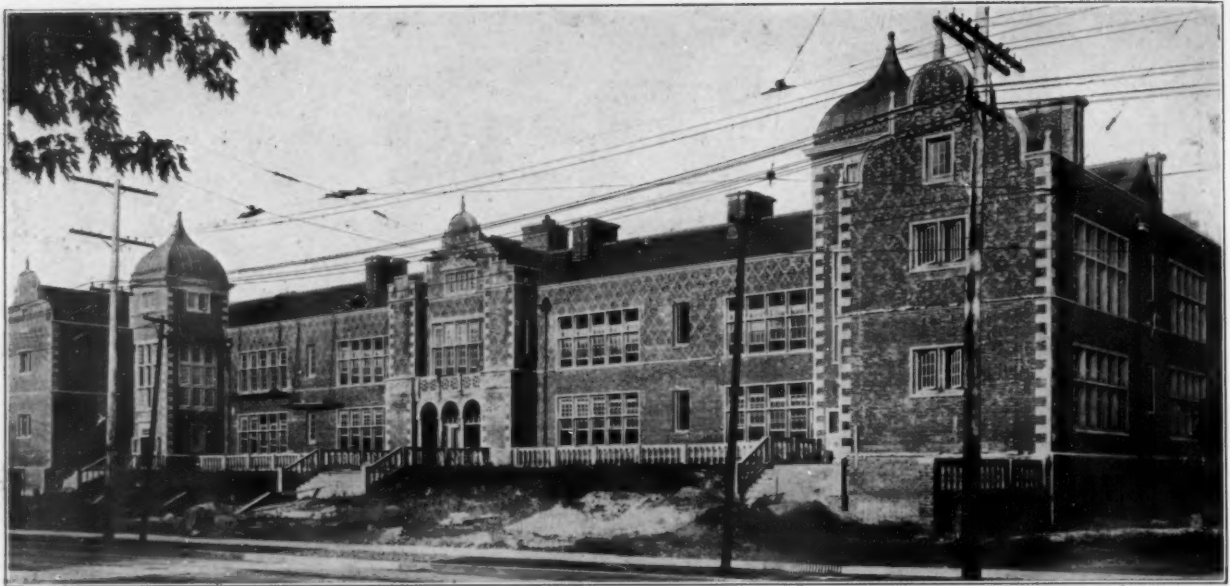


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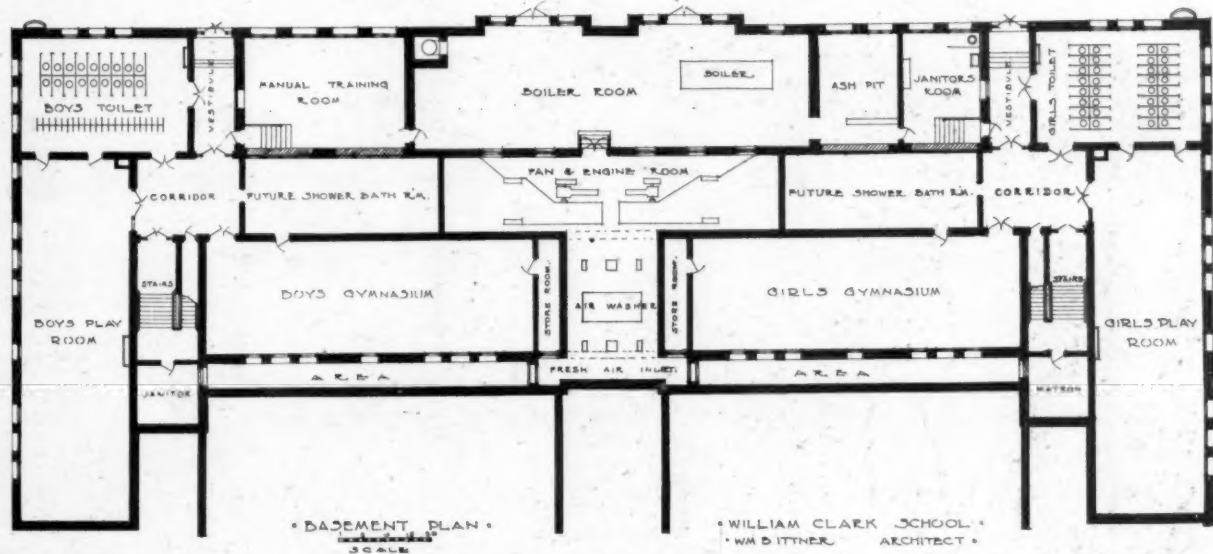
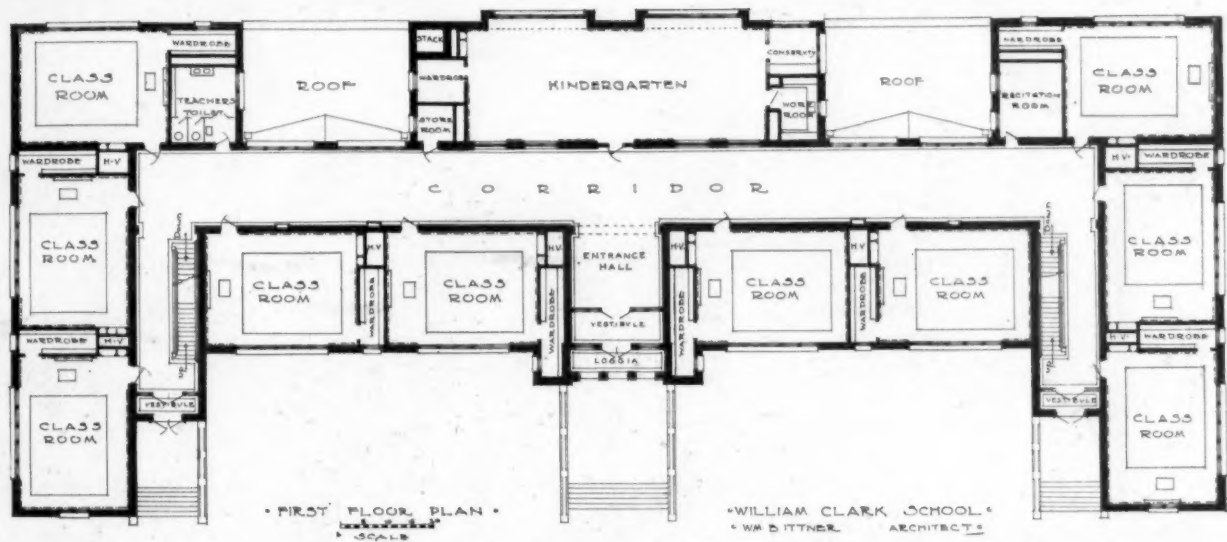
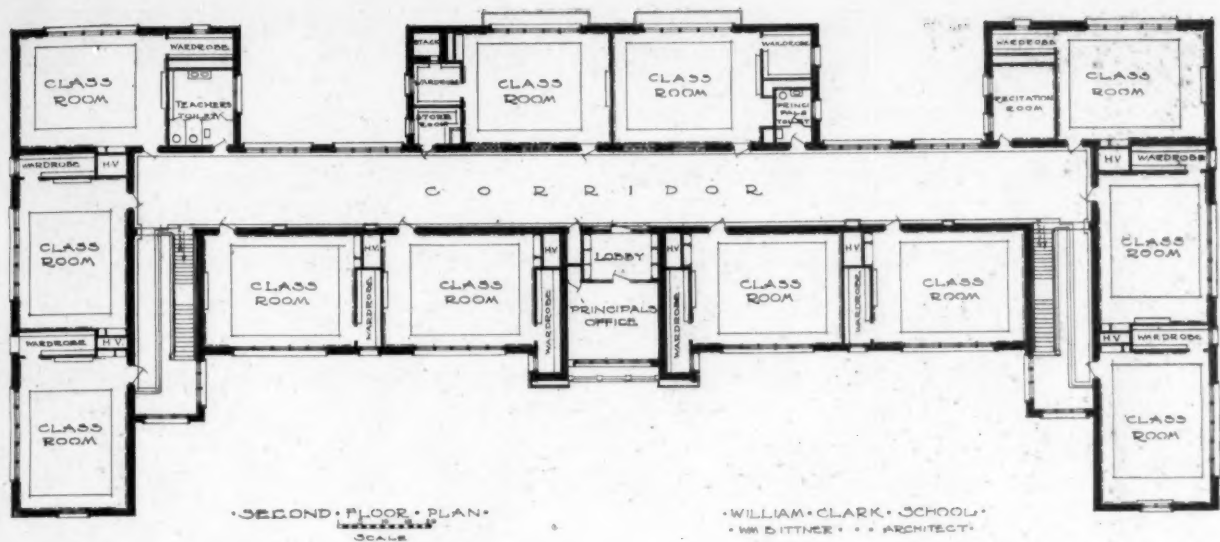
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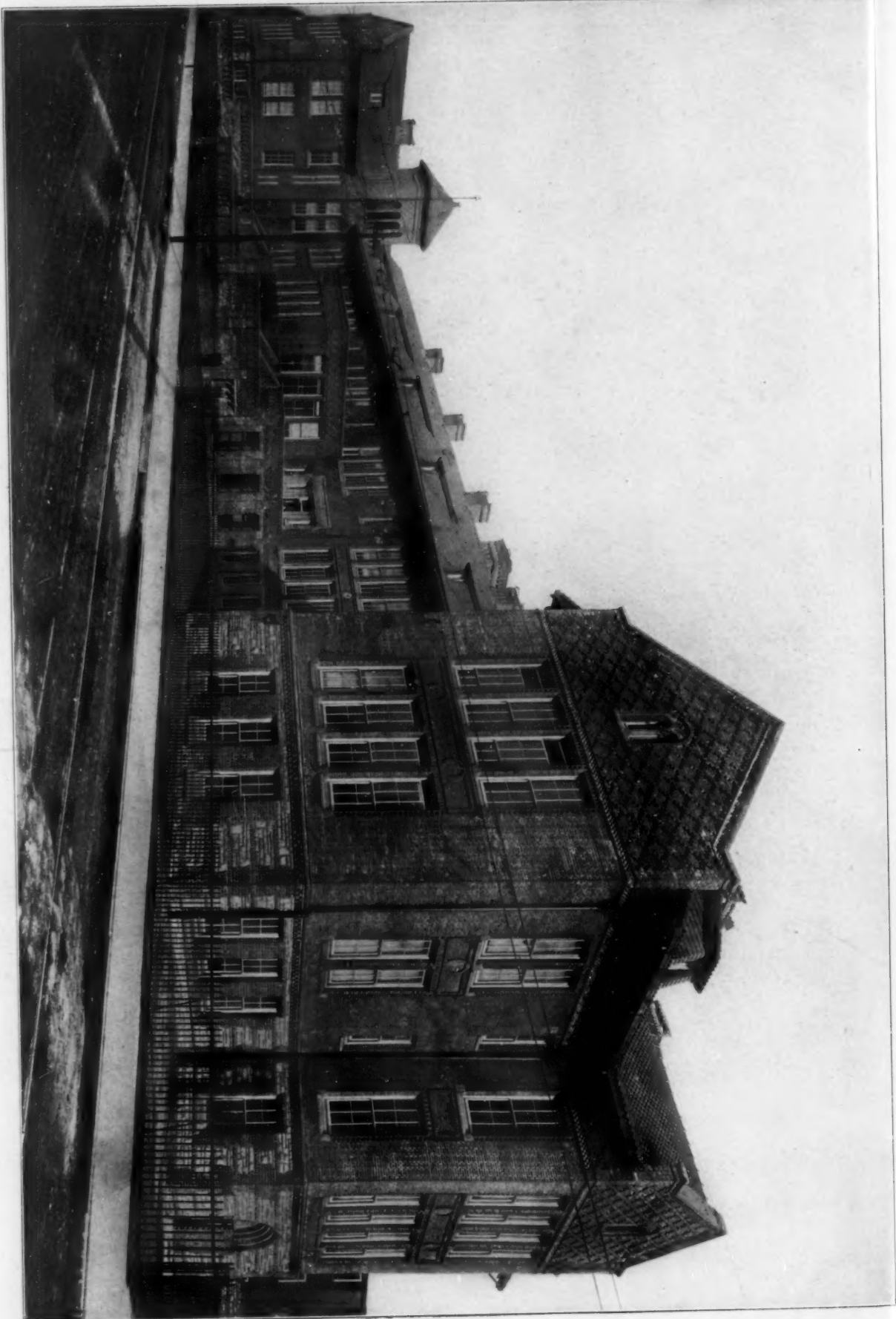
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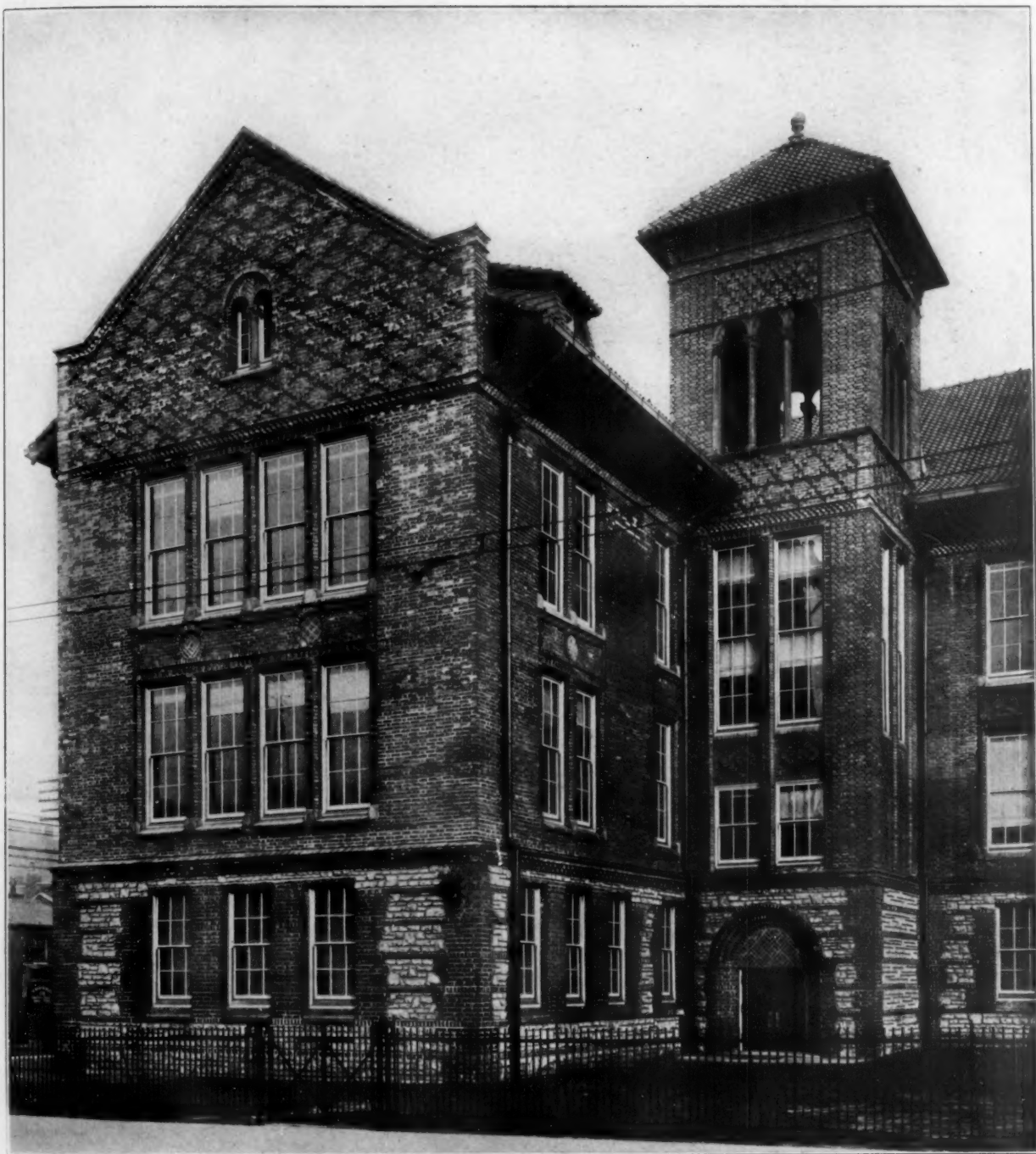
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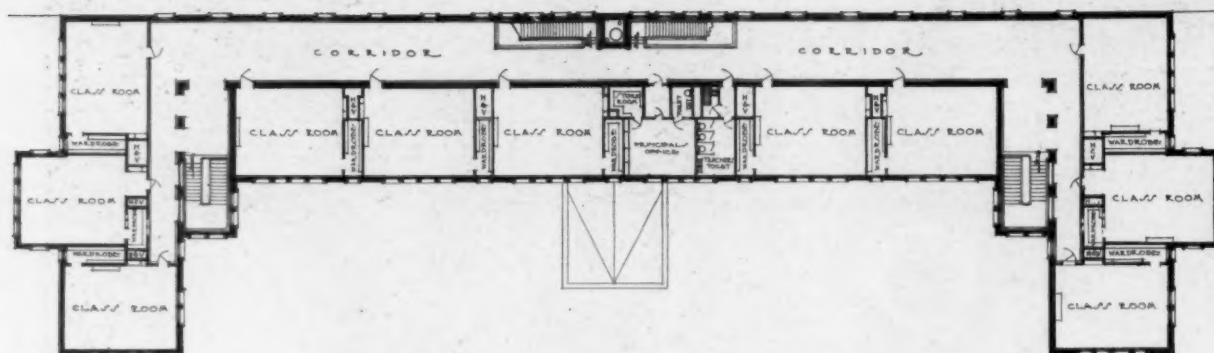
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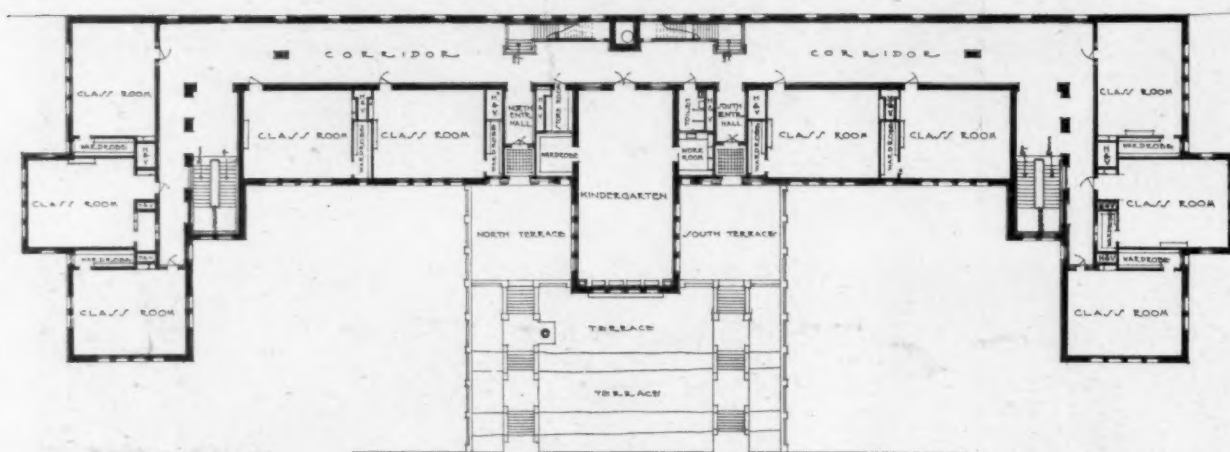
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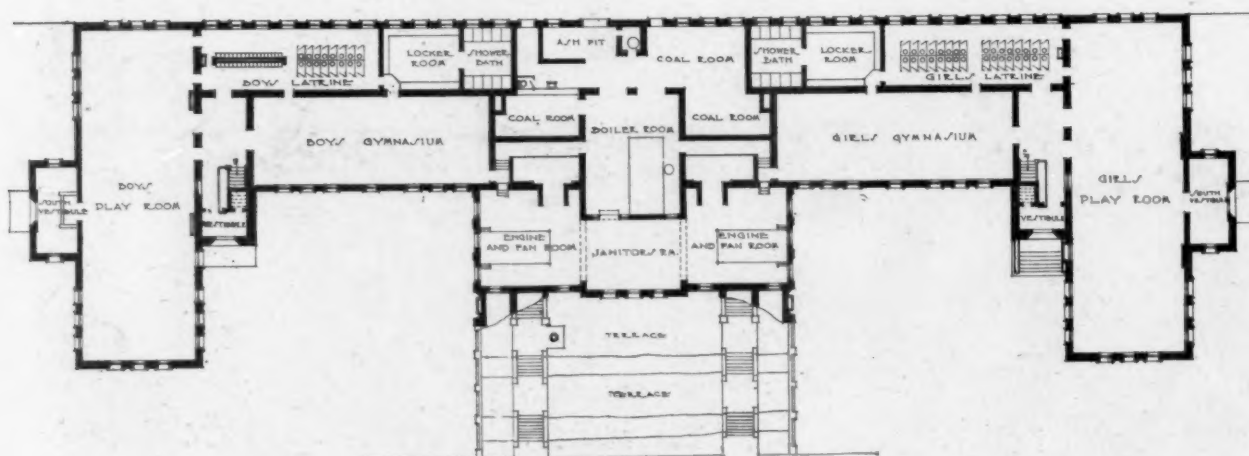
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SECOND FLOOR PLAN.



FIRST FLOOR PLAN.



BASMENT PLAN.

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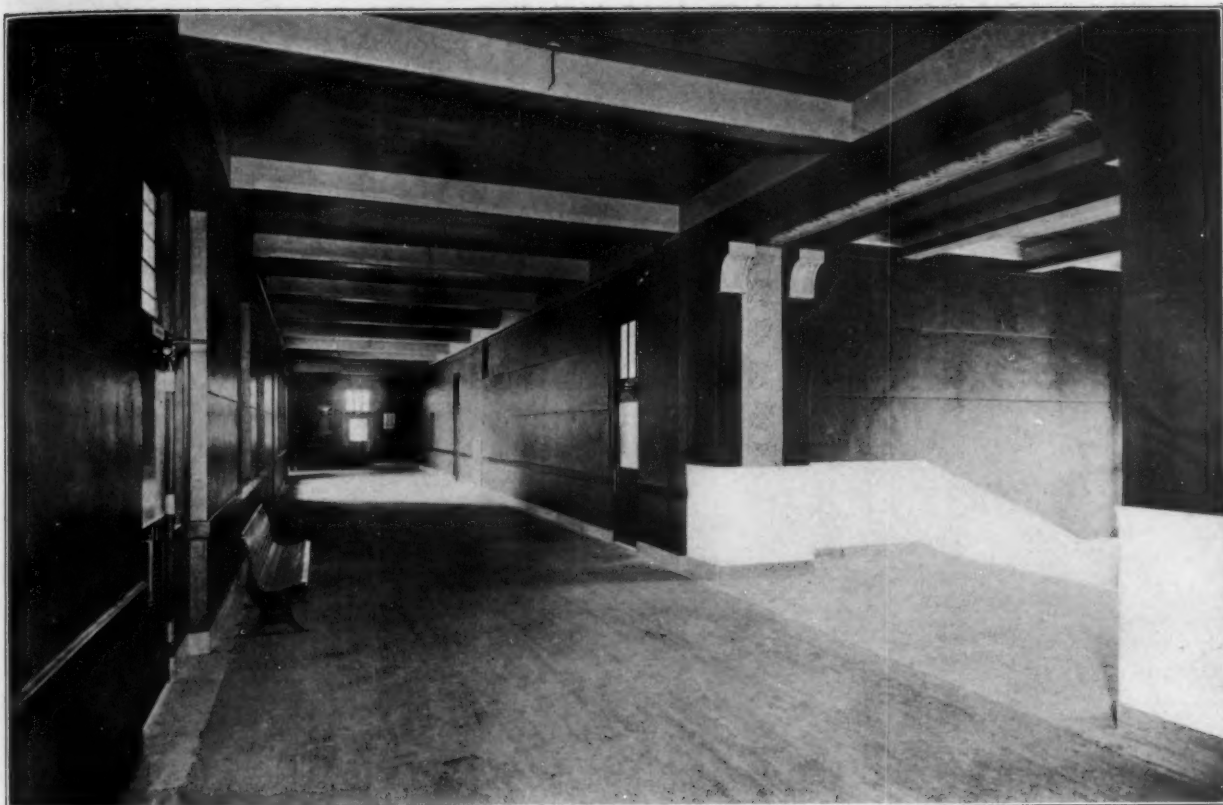
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MAIN CORRIDOR, LAFAYETTE SCHOOL.



CONCRETE STAIRWAY, LAFAYETTE SCHOOL.

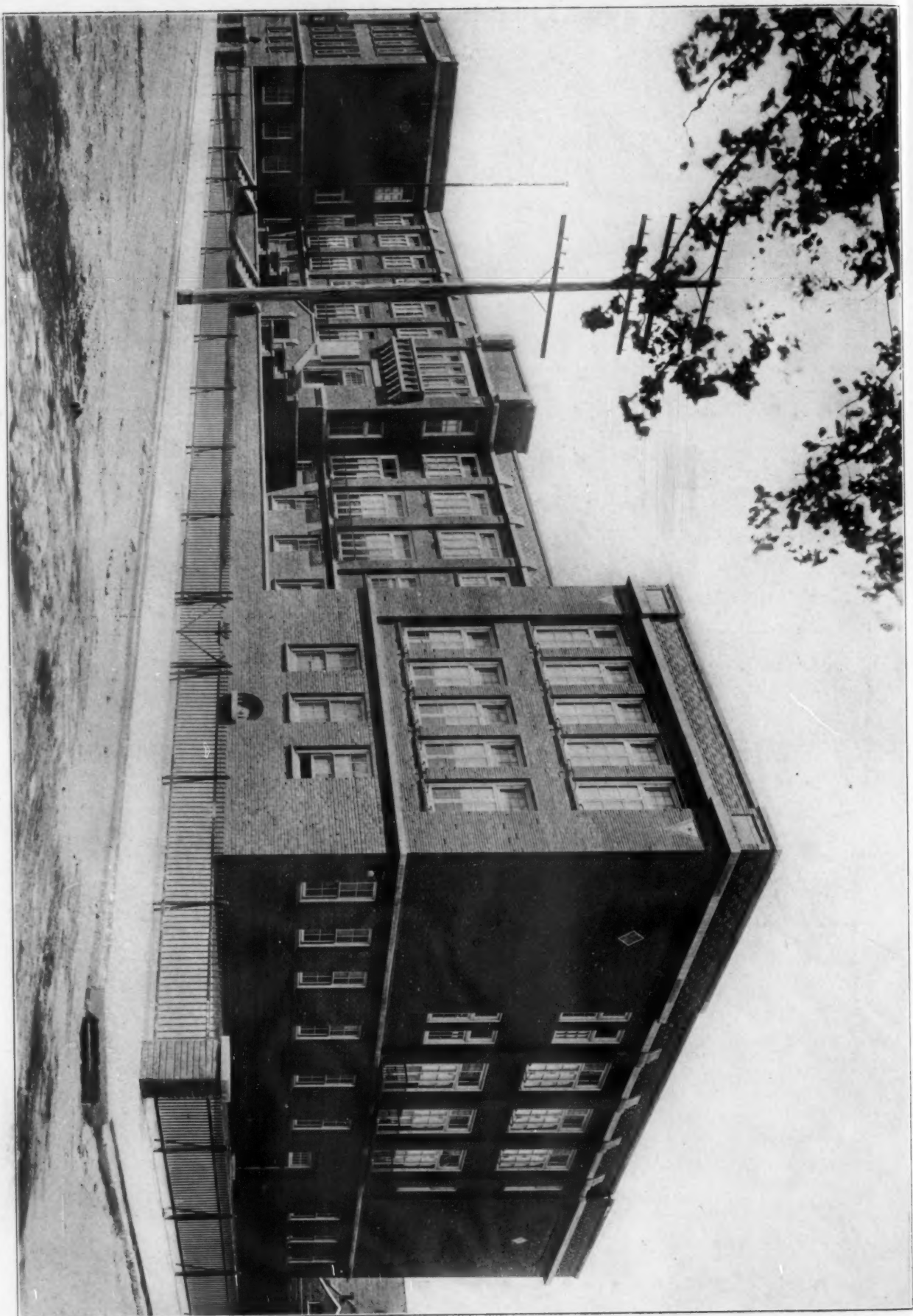
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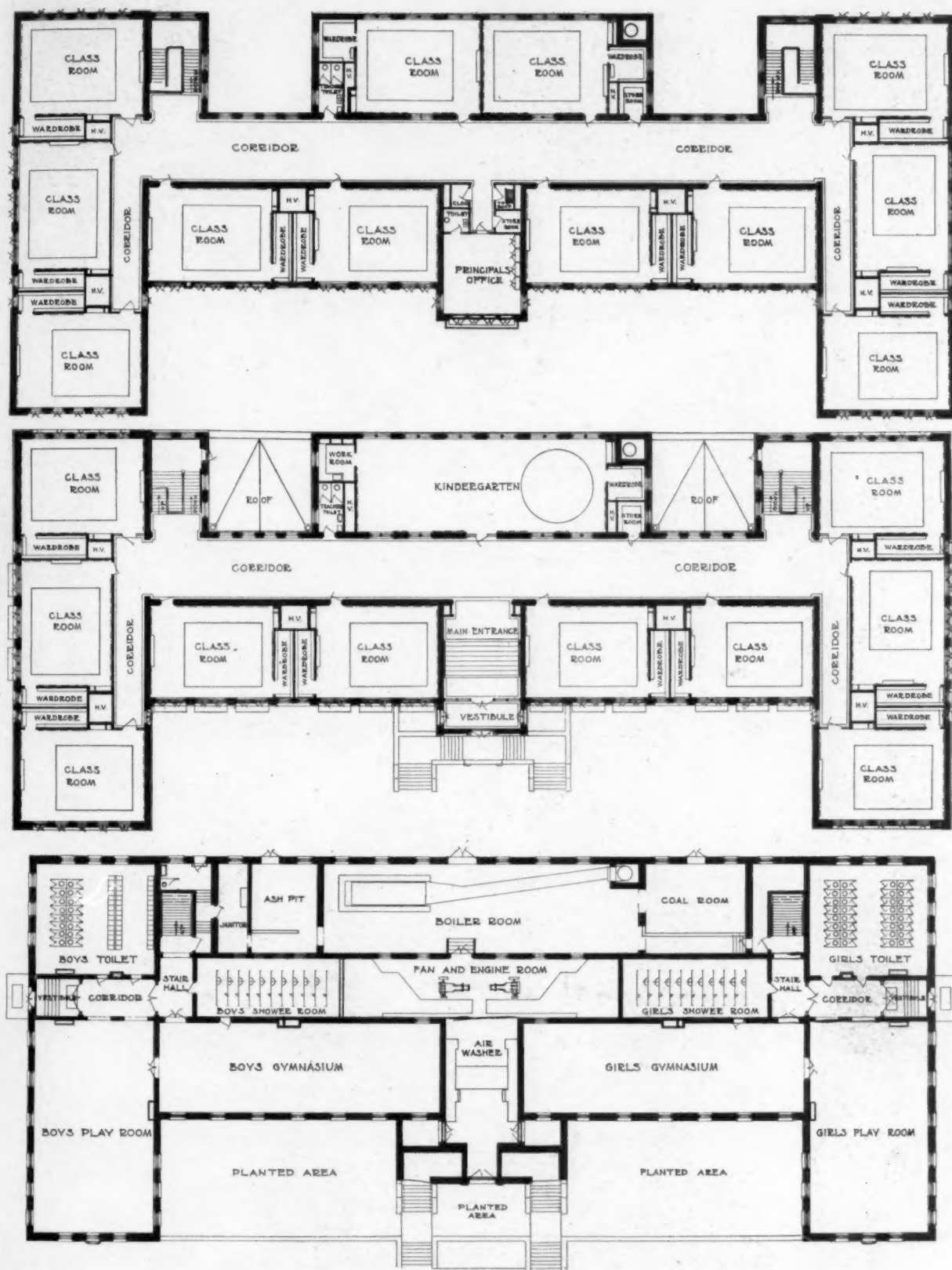


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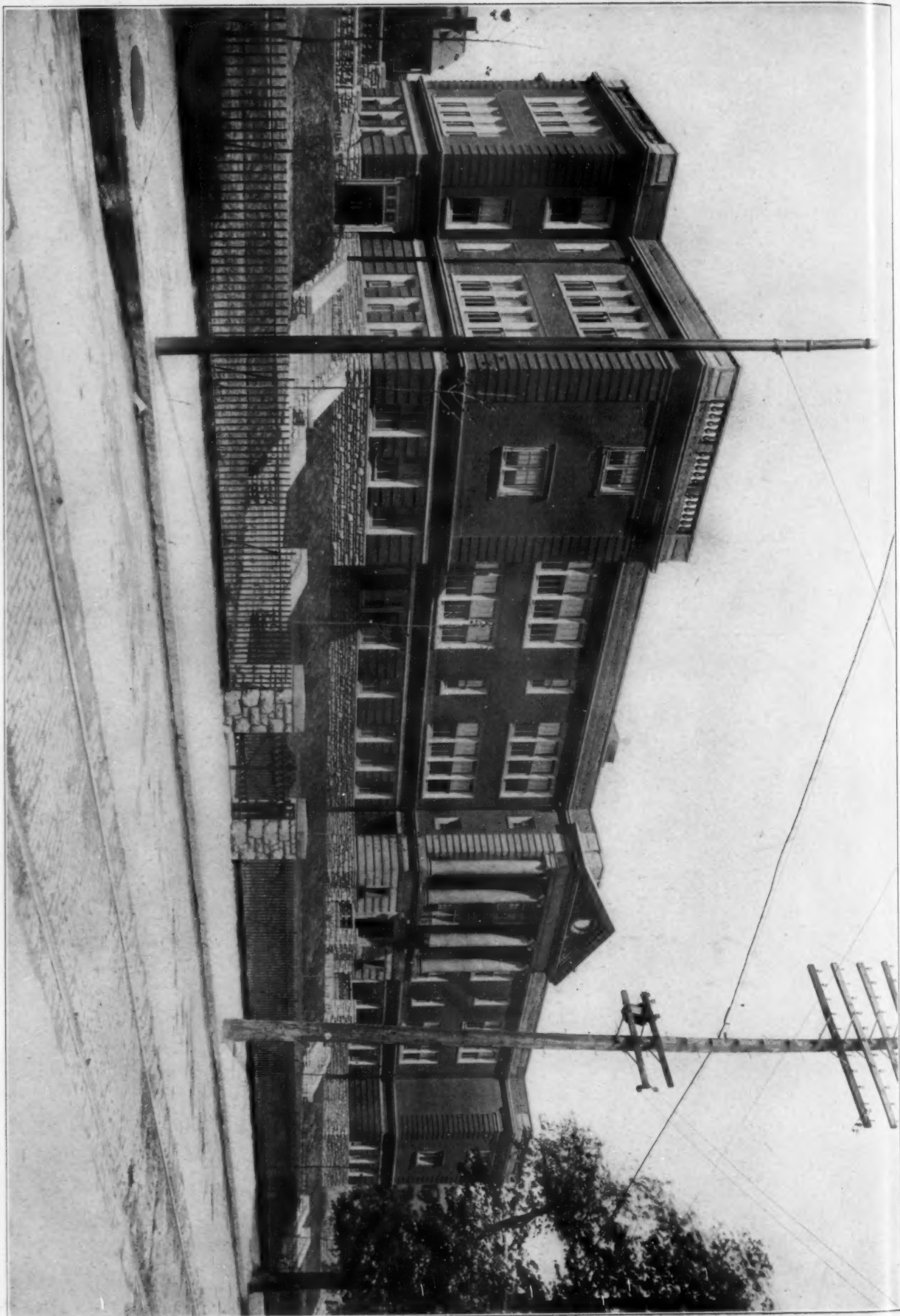
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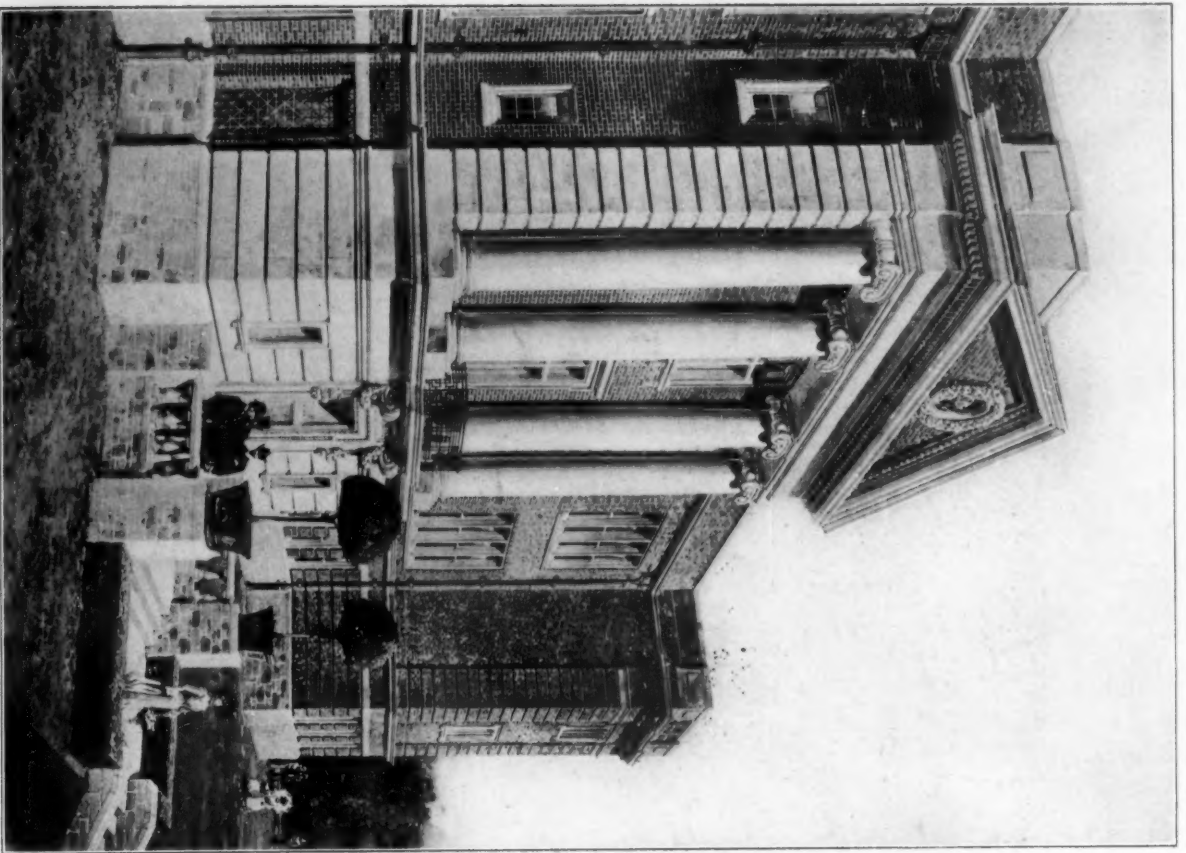
CLAY SCHOOL.

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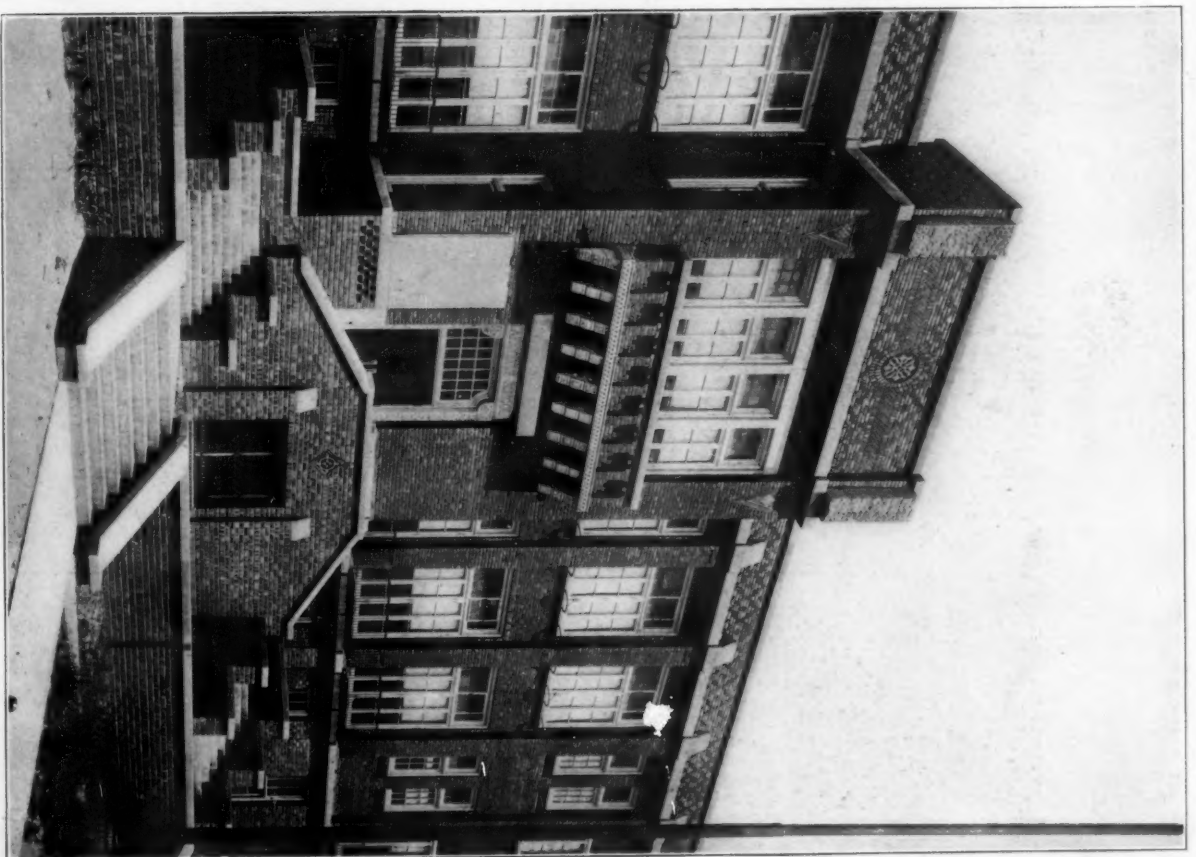
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November 16, 1907.



MAIN ENTRANCE, CLAY SCHOOL.



MAIN ENTRANCE, LAFAYETTE SCHOOL.

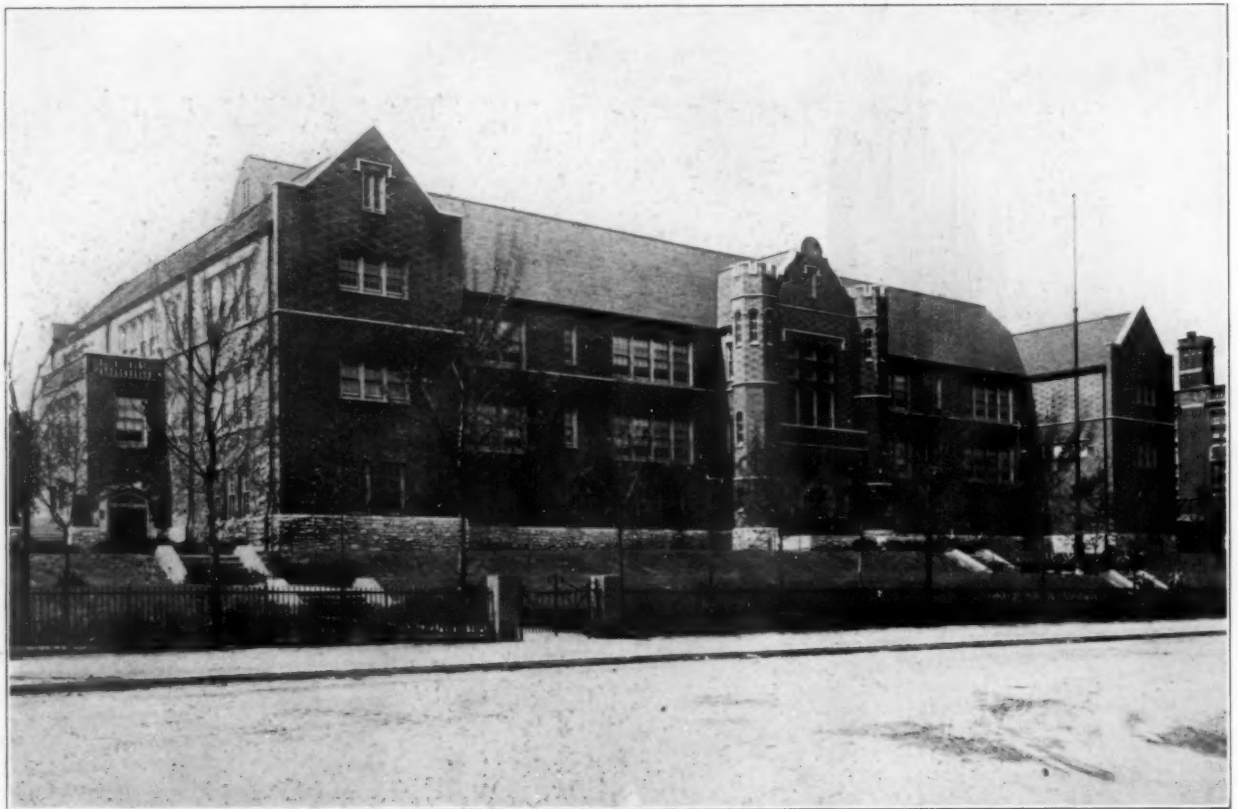
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MONROE SCHOOL.



EDWARD WYMAN SCHOOL.

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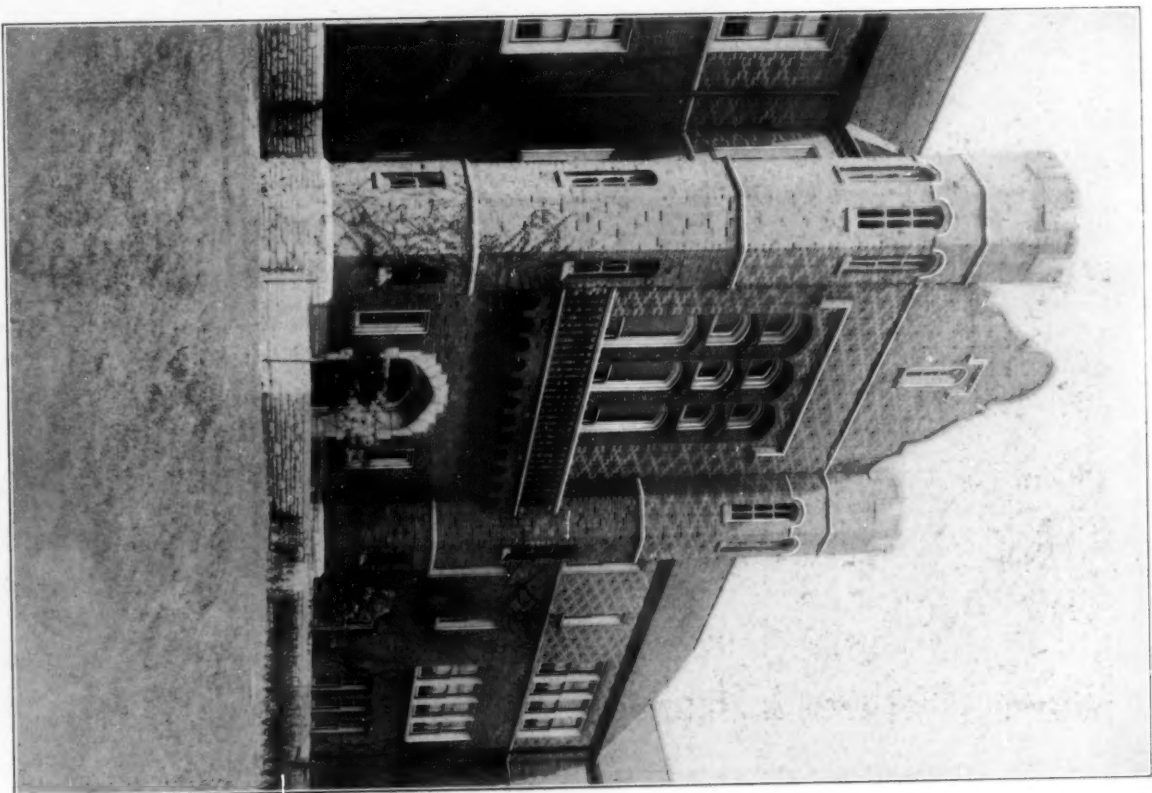


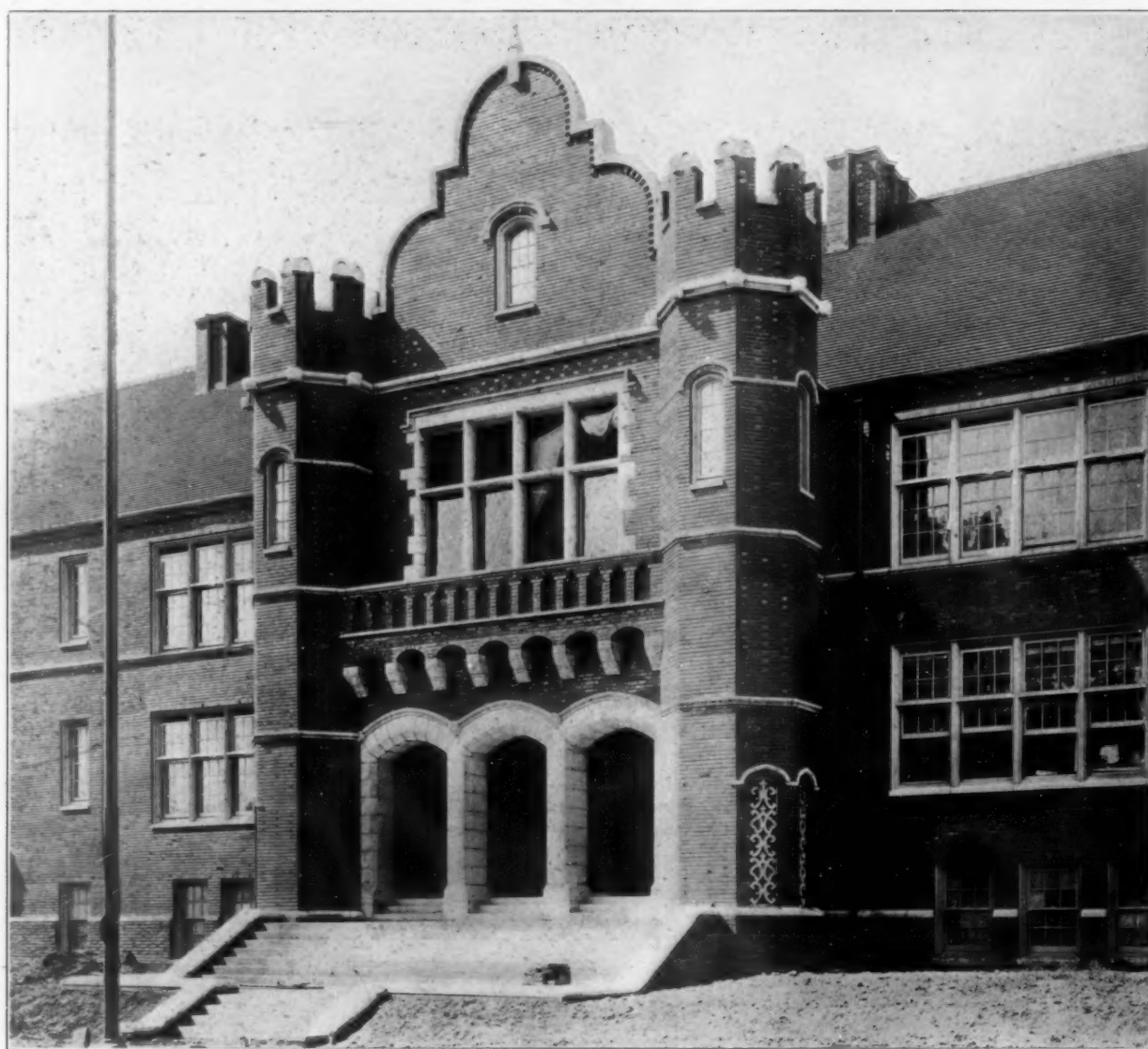
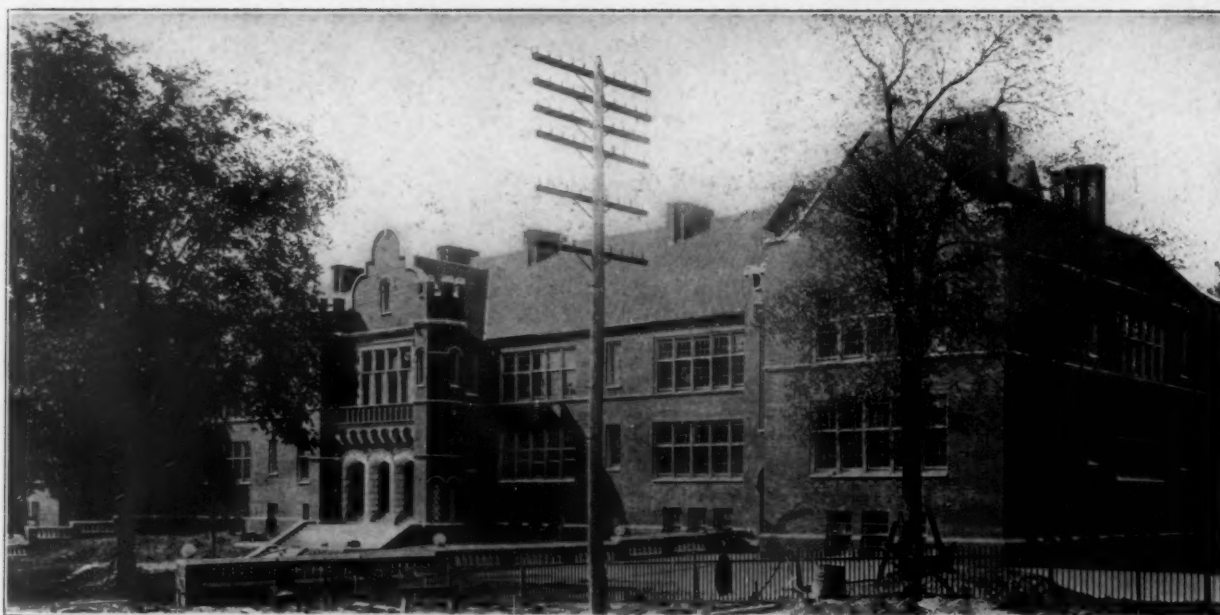
SOUTH END AND MAIN ENTRANCE: EDWARD WYMAN SCHOOL.

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EDWARD HEMPSTEAD SCHOOL.

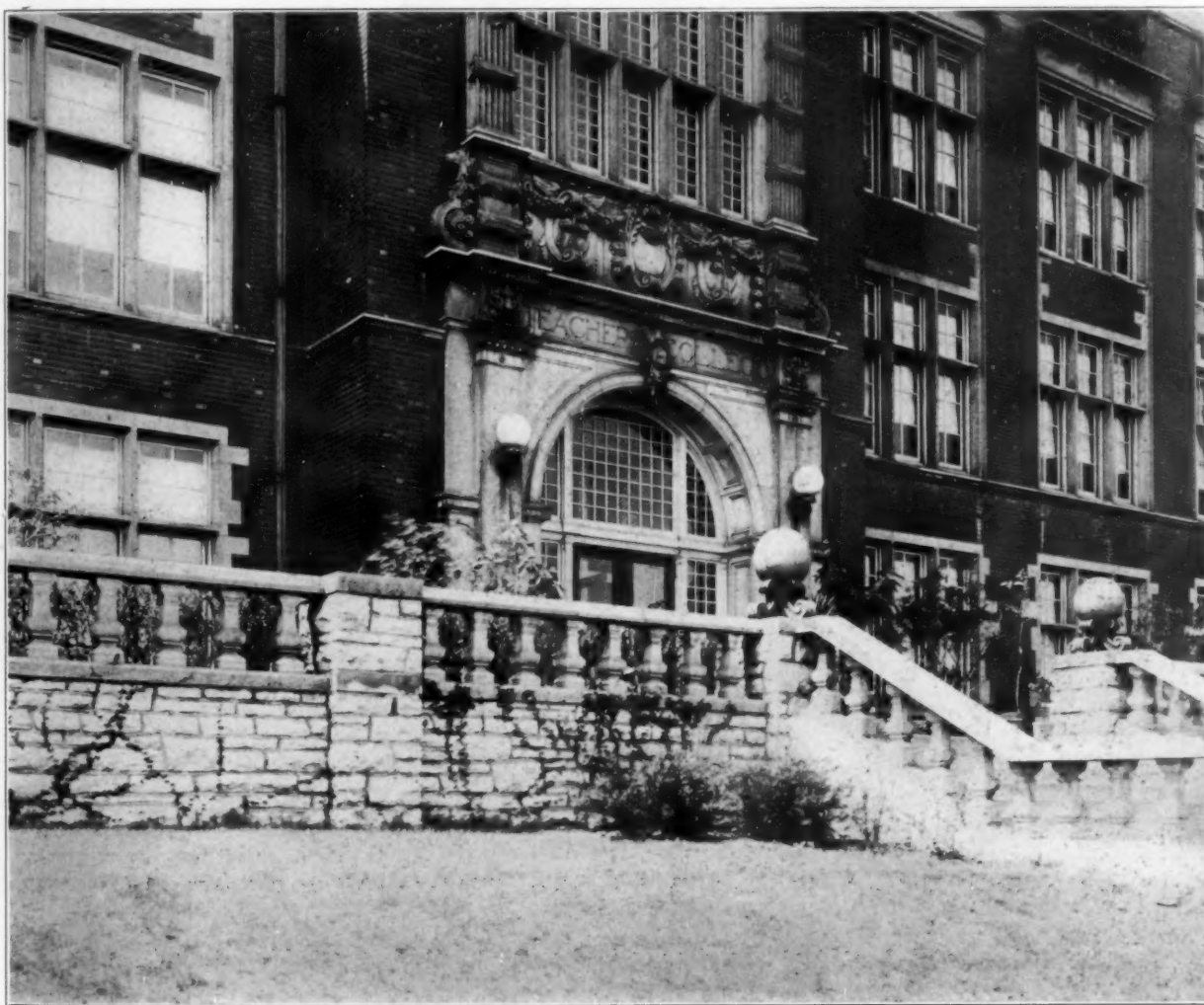
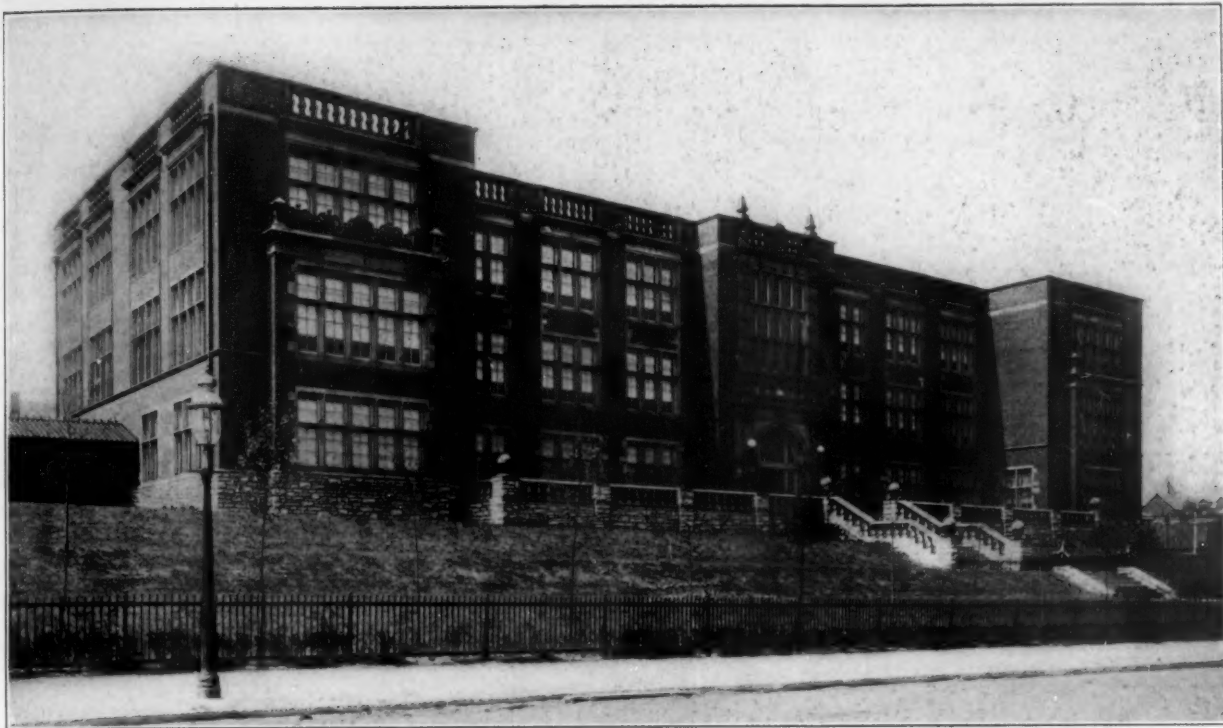
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TEACHERS' COLLEGE.

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both will be required. The installation of two smaller instead of one larger boiler is advantageous in a number of ways, namely: The small boiler will be more economical of fuel, as it will work at close to its rated output, a reserve unit is on hand most of the time, and less headroom is required, thus reducing the cost of general building construction.

Numerous smoke tests have been made to accurately determine the distribution of air in class-rooms of various schools. These tests were made by burning a quantity of red fire powder in the duct where the same leaves the hot and tempered air rooms. This particular powder was selected on account of both its pungent odor and the quantity and color of the smoke, the former attribute making it very easy to determine when a room was thoroughly cleared.

The tests indicated quite clearly the air movement. The fresh air entering the room at a velocity of about 300 feet per minute was evenly distributed over the rear two-thirds of the room, and was gradually driven downward by the continued entrance of fresh air from above, and by the law of diffusion of gases. From the breathing line the air gradually worked both downward and forward to the wardrobe opening, and passed out and into the vent.

During the Christmas holiday recess of '06 and '07 extensive tests of the heating and ventilating were made in five newly constructed schools. Especial attention was given to the matter of air volumes, velocities and distribution. The smoke tests previously described were made at that time.

It may be interesting to note a few figures on fuel cost of heating and ventilating some of the schools. One matter drawing special attention is the fact that a new school requires above 10 per cent. more fuel to operate the first year than is required for succeeding seasons. A cause for this might be found in the fact that the walls are not thoroughly dried out at the start, and act as a better conductor for the heat.

The figures given are for nine schools, and extend over a period of four heating seasons. All these schools are equipped with ventilating fans. During the four years the average mean temperature for the months requiring heat was one degree lower than the average for thirty-four years. The temperature figures are, of course, taken from the United States Weather Bureau statistics.

The total contents of the nine buildings amounts to 5,755,000 cubic feet. The average coal consumption per season for the four years amounted to 1,936 tons, or 673 pounds per 1,000 cubic

feet contents. The average price paid for this coal was \$1.905 per ton, thus making the fuel cost per season for heat and ventilation amount to a little over 64 cents per 1,000 cubic feet. The coal was of the ordinary Illinois variety mined in the district immediately east of the city.

The above fuel cost of heating and ventilating amounted to about 12 1-2 cents per seat. Even if this entire amount were chargeable to ventilation alone (the item of heating being neglected), the fallacy of arguing against ventilating on account of extra fuel required is immediately shown, when an adequate supply of fresh, wholesome air can be provided for each child at so insignificant a sum as 12 1-2 cents for an entire heating season.

The foregoing brief description of the schools will not be complete without a statement as to costs. It will be seen by the following table that the cost, though fairly uniform, fluctuates somewhat more than might be expected in buildings of uniform character. The difference, aside from the fact that the building and labor market has advanced steadily since the first schools were erected, is due mainly to the difference in the sites purchased, some of them requiring an abnormal amount of grading and preparation for the buildings. The cost here given includes the preparation and improvement of the sites and the buildings complete, ready for their equipment of furniture.

Name of school with date of contracts.	No. of rooms.	No. of fixed seats.	Total cost.	Cost per cubic foot.	Cost per pupil.
Blow— January, 1904..	24	1,200	\$150,980.92	\$0.157	\$125.81
Cote Brillante— September, 1904..	24	1,200	162,829.01	.17	135.69
Clay— September, 1904..	24	1,200	159,406.54	.194	132.84
Shepard— January, 1905...	24	1,200	162,228.92	.165	135.19
Patrick Henry— January, 1905...	23	1,145	203,312.65	.180	177.56
Sigel— March, 1905....	24	1,200	158,595.88	.17	132.16
Hempstead— January, 1906...	24	1,200	180,560.80	.171	150.47
Wm. Clark— February, 1906..	24	1,200	188,902.00	.191	157.41

School Hygiene--Buildings and Their Equipment

MR. THOMAS E. COLLCUTT, President R. I. B. A., presided over the section "The School Building and Its Equipment" at the International Congress on School Hygiene held at the London University, August 5 to 10. The following is an extract from his address delivered at the opening of the sitting:

In designing school buildings, the architect is generally obliged to limit his expenditure, so that there are seldom opportunities for much ornament or display. This in itself is not a disadvantage. There is no necessity for elaboration of design, but fine architecture is always desirable, and is quite possible without rich and expensive detail. In every school building, however simple in general construction, there should be at least one feature of architectural worth. Should this be a fine doorway or any other detail, let it be good enough to be a source of pride to the school. An important factor in education is the development of that appreciation of beauty in art or nature which is latent in most of us. If school-teachers can learn to be proud of some part or feature of their building they will be able probably to inculcate some such feeling in their scholars. I believe that a sense of admiration for the handicraft of others leads to emulation of the right kind, and a fine example in stone or woodwork may prove of great educational value to our budding craftsmen.

Another point on which I should like to touch is the finishing of the walls in class-rooms, etc. With all deference to sanitary and hygienic opinion, I feel I must protest very strongly against the use of glazed surfaces in schools and class-rooms. Perfect

as glazed tiles are in every way when used in legitimate positions for lining lavatories, cloak-rooms, etc., they are inappropriate and unsightly as wall-decoration for living-rooms. My own experience in a certain room lined with faience has been that of discomfort and irritation. Being, as you will allow, something of an expert where domestic architecture is concerned, I was able to trace the cause of my discomfort to the glaze of faience. Surely children, without knowing whence the depressing influence arose, might be quite as much affected by it. Too much stress cannot be laid upon the importance of having warm and pleasant coloring upon the walls; the cold and drab colors which are so much used should be avoided. In London and large towns there is too much that is dismal and smoke-defiled outside, and the interiors should be cheerful. Children's eyes wander even when their attention is supposed to be engaged, and they should surely have something pleasant to look upon. Their school-rooms, in fact, ought to be such rooms as we would not mind occupying ourselves. To illustrate my point, let me draw attention to the Doss-house in Parker Street, which I saw after it had been occupied for two years. This building is a common lodging-house for the poorest classes, the charge being 5d. a night for a bed. The common-room is decorated in a way that might by many be considered inappropriate to the class of persons by whom it is used, but I consider that the money spent on beautifying it has not by any means been thrown away. The whole of one end of the room is occupied by a carefully designed fireplace surmounted by a mural picture. The woodwork of the walls and of the fixed seats is of equal merit with the other

work, and is painted in rich and pleasant green. This sort of decoration, without being expensive, is highly effective. When you consider the exceedingly low charge for a bed, and for the use of this room, you will realize that the Doss-house is occupied by the poorest of the poor. The casual occupant may be anyone, from the young hooligan to the most hardened vagrant, and yet after two years' continual use I saw absolutely no sign of rough treatment. The painted woodwork and the walls were all in as good condition as if the room had been dwelt in by educated people. Any signs of wear visible were certainly not caused by malice, or even carelessness. It seems to me that the fact of this respect shown to a good building proves that even the minds of the very poorest may be accessible to feelings of beauty. If adults of the degraded though not criminal classes are sensitive to the influence of beauty, how much more must this be the case with the plastic mind of childhood.

There is nothing more necessary to the well-being of children than good ventilation. Of all the systems at present in use, some of which are certainly excellent, not one can be said to approach perfection. In forthcoming papers you may hear many methods strongly advocated, but I venture to assert that, whatever may be the virtues of such systems, all will leave something to be desired. Architects agree that open fireplaces and open windows are essential supplements to any other kind of ventilation. All who have to do with children know that they thrive best in the open air. Doctors insist on open air for anemia and chest diseases and for minimizing the risk of any sort of infection, and no system of ventilation has yet been discovered to supersede the open-air treatment for consumptives. If prevention is better than cure, it behooves us to see that the children of the nation are taught as much as possible in fresh air. As a matter of example, it is desirable that children see that frequent changing of the atmosphere is insisted on in the class-room. No patent system of ventilation will teach them the valuable lesson that they may learn by seeing the importance of having the windows open. As well teach them to cook by electricity, and then let them go back to their own cheap stoves, as expect them to learn the rudimentary hygienic truth that fresh air is essential in a class-room where the windows are all kept shut.

LIGHTING AND VENTILATION OF CLASS-ROOMS.

Sir Aston Webb, R.A., opened the set discussion on this subject at the International Congress on School Hygiene, and delivered the following address:

I AM afraid there is nothing new that can be written on this subject, and I make no claim to any originality in these remarks, merely recording my own experience and what I believe to be the present practice in England. The reason, I presume, that led to this subject being selected for discussion at this Congress is the importance of the class-room as that section of the school building in which the scholastic portion of the teaching is carried on. Here the scholars spend practically all their school hours, and here their mental powers are put to the greatest strain, so that it is desirable that everything possible should be done to place them under the best physical conditions. The size of class-rooms is obviously closely related to the subject of lighting and is necessarily regulated by the size of the classes. These vary from the fifty or sixty scholars or more allowed in a public elementary school to the fifteen to thirty in a secondary school. The size is also regulated by the seating arrangements adopted, single seats taking more space than dual, the width of gangways and master's platform being also factors in the case. The purpose to which a class-room is put will also necessarily affect its size, but I am assuming that the class-rooms at present under discussion are the ordinary ones in which general subjects are taken.

The Board of Education lays down an average of not less than ten square feet of floor space for each scholar in public elementary schools, and in this country this is generally adhered to; while in secondary schools, where single desks are used, a floor area of from seventeen to eighteen square feet is required, though, under certain circumstances, a minimum allowance of sixteen square feet will now be accepted by the Board of Education. Given, therefore, the number of scholars to be provided, the above requirements fix the floor area of the class-room; but there still remains the comparative length, breadth and height to be determined, matters on which the effective lighting and ventilation must largely depend. The breadth and length are, to some

extent, governed by the type of seat employed, but the nearer a room approaches a square the better, with the limitation that a room can hardly be satisfactorily lighted if more than twenty-four feet wide, while twenty-two feet is better.

We will assume that the room is lit, as it should be, from one side only, which at once limits the depth from twenty to twenty-four feet; the length will then depend upon the number to be seated. The height of the room is also an important factor in the lighting, as the deeper the room the higher it should be, if the seats farthest from the window are to be properly lighted. For the purposes of acoustics and ventilation twelve feet is generally a sufficient height, though, if a large number are to be accommodated, thirteen to fourteen feet in height may be necessary. These regulations work out for a class-room in a secondary school for twenty-five scholars at twenty-three feet six inches by nineteen feet by twelve feet high. Having settled the size of the class-room, the question of lighting has to be considered more in detail. It seems hardly necessary to mention that it should be lighted from the left hand of the scholar only. The size of glass area to be provided is more difficult to lay down. This will be affected by two considerations—the aspect and the situation. To take the latter first, it is obvious that a town school in a crowded part would not obtain so much light from a window of a given area with buildings opposite as a building situated in the open country with an unobstructed prospect. The same applies in some degree to the aspect, windows quite satisfactory for a northern aspect being unsuitable for a southern one. Class-rooms should be so placed that they have sun in them during part of the day, but not always; north, west, and southwest, if unprotected, should be avoided. The Board of Education lays down one-fifth as the approximate area of window glass to the floor area to light a class-room satisfactorily. In very confined sites, however, one-quarter is sometimes found necessary, and in open and exposed sites one-sixth will sometimes suffice. Anything beyond the amount of glass actually necessary to give a satisfactory light is undesirable, as it tends to make the room cold in winter and hot in summer, and adds considerably to the difficulty of the effective treatment of the room, both externally and internally. The glass line should not be more than four feet above the floor, with the heads of the windows carried up as near the ceiling as possible.

The windows should be so arranged in the wall that all the seats are equally well lighted. This is apt to leave the master's desk somewhat underlighted, and in order to rectify this Mr. Bell and I provided in the class-rooms at Christ's Hospital a small window to light the master's desk, kept low down so that he can also see out of it, and I believe this has been appreciated. Under no circumstances should there be windows facing the scholars, and windows in the opposite wall facing the master are almost equally objectionable. Mullions, transoms, and window bars are, in my opinion, unobjectionable if the glass area is calculated independently of them. Plain sheet or plate-glass is the best for glazing, and the view of the sky should not be shut out from the scholars. Glazed brick or tiled walls, except as dados, are not suitable for class-rooms of the character we are considering; the reflected light is trying to the eyes, and being non-porous they are not considered hygienic for crowded rooms. A white plaster ceiling is the best, with light green or gray walls, according to aspect, the woodwork painted white or, better, left its natural color. A glare in a class-room is to be as carefully avoided as gloom. The artificial light of class-rooms, perhaps, hardly comes under consideration to-day, but is of equal importance when much evening work is done. Carefully regulated incandescent electric lighting is the best, and greatly simplifies ventilation. Gas is better avoided. Perhaps the best illuminant is composed of inverted arc lights with the room lit by reflection from the ceiling, but it is extravagant in current. Single incandescent lamps equally distributed over the ceiling give a pleasant and well-diffused light. Groups of lamps in electroliers should be avoided in class-rooms. One eight-candle lamp, if not hung too high, should light sufficiently twenty-four feet super. of floor area.

For the ventilation of class-rooms it is more difficult to lay down any definite rules. The problem may be simply stated as follows:

The time required to contaminate the air in a class-room of an elementary school of the capacity required per scholar—i.e., ten feet per scholar—is eight minutes, while for that of a secondary school it would be a quarter of an hour. The temperature

of the room, according to the rules of the Board of Education, has to be kept at from 56 degrees to 60 degrees Fahr. The problem, therefore, is how to change the air of a class-room from four to eight times an hour, and, at the same time, to avoid draughts and keep the temperature at from 56 to 60 degrees. In discussing ventilation it is not possible to exclude altogether the question of heating. This can be done by open fireplaces, hot water, or steam and warm air. In one set of competition conditions sent to me I was surprised to find a condition, drawn up by an eminent architect, stating that the top of the fireplace openings should be four feet six inches high above the floor. I subsequently learned that this was provided on the strength of an instance where it appears such openings were provided, and it was noticed the boys did not progress so well after they had grown above this height, the idea being that the air in the room was better at the lower level through the ventilation of the fireplace. Whether this was a fact I cannot say, but the regulation was not insisted upon when the building came to be erected.

Still there is, I think, undoubtedly in England a strong preference for the open fireplace and the open window, and no doubt there is much to be said for them, especially in small schools; in larger ones it is impracticable. At the same time, I am strongly of opinion that an elaborate system of heating and ventilation such as may be very necessary in such buildings as law courts or hospitals is not necessary in a school for healthy boys and girls. The open fireplace not only provides heat, but also a means of ventilation, and should be placed in the angle on the inner wall near the door, not on the window side, which is an outside wall, and which in such a position must place the unhappy master in a draught between the door and the fireplace. An extract can be obtained by another flue in the chimney-stack, and fresh air may be admitted at the back of the grate and from the corridor. By this means, however, it is impossible to insure with any certainty a regular change of air in the class-room or an even temperature. All extracts which are worked by what are called natural causes are, in my opinion, unreliable, and under certain variable conditions of temperature or wind pressure work uncertainly and sometimes even in directly opposite direction to that intended. To obtain results unaffected by these variations, mechanical means must be employed in the shape of rotary fans or other contrivances to move the air by either extraction or propulsion. If extraction is adopted, probably the best plan is hot-water radiators under the windows fitted with bafflers, behind which the fresh air admitted from outside is warmed by passing over the radiators and the foul air is mechanically extracted at the ceiling level in the wall opposite. By this means, and with regulators on the inlets and outlets, the system can be sufficiently regulated, but it is as well also to supply an open fireplace, though the mechanical extract may interfere with its draught at times. The size of both the inlet and outlet depends upon the power of the fan employed. The alternative is the propulsion of warm air into the room by a fan, the air being admitted into the room about two feet below the ceiling, the outlet being at the floor level into the corridor immediately below the inlet over. The advantages of this system are the more equal distribution of the heat throughout the room, the absence of all heating apparatus, such as radiators, in the room, the avoidance of draught, the air in the room being under slight pressure, and the ease with which the apparatus can be used for ventilation purposes in summer time. The system requires to be planned with the building, and cannot, therefore, well be applied to old buildings. Each system, however, has its advantages, according to the size and special circumstances of the building; and with mechanical means now so readily at our disposal there should be no difficulty in providing either the temperature or change of air that our medical advisers may decide from time to time to be necessary or advisable, for, after all, we must look to the medical profession to lay down the hygienic requirements of the children to be accommodated in these rooms, which it is our humbler but equally necessary part to see carried out as effectually and economically as possible.

THE EVOLUTION OF BASTARD BOND.

WE shall in this article make an attempt to explain how modern so-called "English Bond" came into existence. No authorities can be cited nor can any proofs be produced.

Roman bricks, made in the proportion of length to breadth as 3 is to 2, when laid with one-third laps, secured sufficient lapping on

sides and flats of bricks, together with efficient covering of vertical joints in any course by the bricks of the following course. In this manner the traditional laws of lap and cover were probably established; and to these laws every succeeding generation of bricklayers has endeavored to conform.

Social causes, and the increased cost of building, led to a reduction in thicknesses of walls, when less clumsy bricks became necessary. For quick and economical handling, the breadth of the new bricks seems to have been fixed at one "hand-grip," or about 4½ inches. To obtain bricks of reasonable size and weight, the length was fixed at two breadths, or about 9½ inches, allowing for mortar joints. From this period till now, the correct proportion has been always assumed to be 2 : 1 instead of 3 : 2.

The first definite bond devised for the new bricks was, in all probability, the bond known as the old English Bond of half-brick laps. Its one great defect must have been discovered early. The vertical joints run, more or less, through two courses, and by reason of this arrangement, the half-brick laps must have soon been found to be too much for any but strong and tough bricks.

Where such bricks were unobtainable, or were too expensive, another bond had to be devised, and this was probably the "Sussex Bond," which we propose to illustrate in a future issue, the English Bond of quarter-laps. It suits ordinary soft, but otherwise well-burned bricks admirably. Its strength every way is considerable, provided, of course, that the bricklayers know their work and lay the bricks well and truly with full quarter-laps.

Walls in England were built more and more slenderly when it was found that the half-bricks of the first form of bond became, in thin walls, a source of weakness. The old English Bond of the half-laps seems by this time to have fallen into disuse, and it has, apparently, been nearly forgotten since.

Unfortunately, the bulk of walling done in England is 1½ bricks in thickness and under. Still more unfortunately, the "Sussex Bond" works down, in walls of 1½-bricks, to the modern so-called "English Bond." Rankine in his works, in 1869 and 1870, unintentionally added to the confusion of thought and practice, by declaring the transverse strength of "English Bond" to be twice its longitudinal strength, whereas, true English Bond, which he overlooked, possesses equal strength both ways.

With a false theory, and with bricklayers practised chiefly in thin walls, the result was inevitable. The principles of true bonding were forgotten, the practice debased, and the art lost. It is a pity, because the strength and toughness of bricks is being improved almost daily.

Modern walling is now generally built, for all brick walls up to any thickness, in the alternate header courses of the "Sussex Bond," the *stretcher* courses being entirely omitted, with serious losses in strength, stability against earthquake, and durability.—*Indian Engineering.*

THE CATHEDRAL AT CEFALU, SICILY.

THE cathedral, a Latin cross in design, is of a superb dignity, right Norman in its massive and lofty strength, not greatly touched by the alien Moorish influences which temper so much Sicilian architecture. Like an armored knight of the old days, the church stands between impregnable cliffs and assailing waters and defies the passing centuries. Tradition, though not, I fear, history, holds that Roger raised the noble structure in accordance with a vow made during peril of shipwreck. He did well to be grateful for his escape, if the waves which spared him were as fierce as those which lashed the rocky shore that day at Cefalù. After standing a while in the deserted square, I crossed to the great portal of the church. It was locked, but a band of small boys sprang out of the ground as I appeared and undertook to call the custodian. I gave a couple of soldi to the foremost, and thereafter was attended by a retinue of dark-eyed, ragged, irrepressible urchins, plucking at my skirts and cloak and repeating the familiar Sicilian formula, "I die of hunger, signora." Cefalù is said to be a thriving town, but I saw nothing of its products except thieves and beggars.

Up in the great nave of the cathedral, between the rare antique columns claimed from pagan to Christian worship, my cortege followed me. But there in front were the marvelous mosaics—who could take heed of earthly interruptions?—mystical, gorgeous; unchanged, untarnished by the passing of eight hundred years. A colossal Christ looked down from the dome of the apse, with an awful and judicial majesty; beneath, among the ranked angels, the Virgin, sombre-robed and wan, spread with her arms in an eternal intercession. On the side walls of the

apse, among bearded prophets and patriarchs, stood the soldier-saints, Theodore and George, armed figures on which the eyes of Roger, the soldier-king, may have rested, brightening.

Turning at last from the heavenly hierarchies in all their jeweled splendor, I passed from the church by a side door which the old priest, my guide, shut suddenly behind me while a yell like the thunder of a mob in miniature rose from the baffled little vagabonds left outside. I was taken through the sacristy to a window commanding a view of the angry sea and indomitable, castle-crowned cliff, and was then shown a side path to the cloisters. Even so, I was forced to accept the escort of a swarthy stripling to keep the infant brigands at bay. The cloisters of Cefalù, how they haunt the memory with the pathos of their desolation! Crumbling through neglect, scarred by rough usage in time of war, they yet retain traces of their former beauty, as the tangled garden within bears still, among its rose-trees run wild, here and there a perfect blossom.

The carved columns must once have been as lovely as those of Monreale; even now their reliefs of climbing creepers and strange birds are exquisite through all defacement. On one ornate capital I discovered a minutely wrought old galley (it was serving, I believe, as Noah's Ark), just such a galley as that which may have fought the storm for the life of Roger the King, when he vowed his great church as thank-offering. Somehow that galley dwells in my memory more than the celestial vision of the mosaics, more than the street scenes of the quaint old town, where I wandered through the rain, while my companion confided to me in barely intelligible Italian his wish to go to America, the El Dorado of every Sicilian's dreams. I shall not soon forget the primitive inn with its *pasta* and impossible wine, and the great crucifix over my bed, that bit of unsophisticated Italy on which I stumbled unaware. But clearest in my memory remains my last glimpse of the Cathedral of Cefalù, beside stormy waters, beneath its guarding cliff, and the little carved galley in the cloister, outsailing the storms of time.—*Dora Greenwell McChesney in New York Evening Post.*

ILLUSTRATIONS

PUBLIC SCHOOL BUILDINGS, ST. LOUIS, MO. MR. WM. B. ITTNER, ARCHITECT.

The sixteen pages of plates which form part of this number illustrate the following buildings: Blow School, Shepard School, Cote Brillante School, Franz Sigel School, William Clark School, Patrick Henry School, Lafayette School, Clay School, Monroe School, Edward Wyman School, Hempstead School and Teachers' College.

Mr. Ittner's interesting article, which appears on pages 155, 156 and 157 of this issue, deals principally with the matter of equipment and construction. The excellent architectural design of the buildings is clearly shown by the plates.

NOTES AND CLIPPINGS

THE BRITISH MUSEUM.—The British Museum, which, under the friendly eye of the King, is now shooting out an infant branch from the mighty parent tree, was planted perhaps in the meanest way. It was in 1753 that the trustees of Sir Hans Sloane offered to the nation for £20,000 the wonderful collection of coins, manuscripts, printed books and natural history curiosities. As an additional inducement to the State to provide house room, it was pointed out that the Harleian collections of manuscripts could still be secured for the nation on payment of £10,000, and that the collection of Sir Robert Cotton, although nominally the property of the nation, was so carelessly housed that a large part had already been destroyed by fire.

The Government refused to find the cash, but declared its readiness, after the true British sporting manner, to allow the public to gamble the British Museum into existence. A lottery was therefore authorized of 100,000 £3 tickets, £200,000 to be distributed as prizes and the balance to go toward the purchase of the Sloane collection. The scheme proved successful, although the manager of the lottery fell into disgrace and was fined £1,000 for taking an illegal premium. In this sordid fashion was the British Museum planted and watered in the palace of the Montagus in Bloomsbury. Its first days were far from prosperous. An income of £900 only was available from the great gamble. Two bequests brought the total up to £2,448, leaving, after payment of

the few salaries, about £100 pounds to make fresh purchases.

But the need for expenditure in this direction was rendered less necessary by the rapidity with which fresh collections of enormous value poured into Montagu House. The great tree has, in fact, grown so rapidly as well nigh to baffle the art of the gardeners to find light and air and room for the spreading branches. The reading room, which in the old building could accommodate only five readers, can now seat nearly 500. Reckoning the miles of shelving devoted to books, the museum is easily the largest in the world. By cunning arrangements, forty-one miles of shelf-room have been found for the 2,000,000 books that now minister to the enlightenment of the universe. The Bibliothèque Nationale, in Paris, the next largest in the world, can boast of only thirty-one.—*London Chronicle.*

THE LAOCOÖN.—Douglas Sladen, in his book entitled "*The Secrets of the Vatican*," the "secrets" consisting of the marvelous art and archaeological treasures contained in the crypts and vaults beneath St. Peter's, and not generally shown to visitors, seems to be unaware of the fact that the head of the principal figure of the world-famed group of statuary showing Laocoön and his sons struggling with the serpents is not original, but merely a relatively modern copy. The original head of Laocoön, belonging to the group now in the Vatican, was found several hundred years ago in the River Arno, under a bridge at Florence, and has ever since been the most precious heirloom of the Duke of Arenberg, preserved in the historic Arenberg palace at Brussels. Regarded as the most perfect specimen of ancient Greek art in existence, it is treasured with such jealous care that it is never shown excepting behind steel bars.

The Arenberg palace overlooks the Square de Sablon, where in the days of the Spanish Duke of Alba's vice-royalty hundreds of men and women were burned and buried alive, and where the patriot Count Egmont, to whom the palace belonged, was beheaded. The room of this count, whose story constitutes the theme of one of Schiller's most famous dramas, is preserved untouched and unchanged since the day when he left it to go to the scaffold. The Arenbergs are descended from Robert de la Marck, so familiar to the readers of the novels of Sir Walter Scott.—*Marquis de Fontenoy in New York Tribune.*

A TALL STEEL CHIMNEY.—At Messrs. Brown, Bayley & Co.'s works at Sheffield, England, a steel chimney over 100 feet high was recently raised in a single piece. The chimney weighs twenty-two tons and is ten feet in diameter at the foot, tapering to seven feet at the top, and it is said to be the highest steel chimney in Sheffield, and its object is to serve an open-hearth melting furnace of twenty tons capacity, built on steel stanchions and girders instead of brickwork. The chimney was raised by slings of wire rope supported from a high derrick, the base being guided into the flange of a large iron base-plate, to which it was bolted with bolts 32 inches long. The chimney has no supports or stays of any kind, but the brick base goes twenty feet into the ground, and the base-plate is secured to the foundations by eight massive bolts, about sixteen feet long.—*Builders' Journal.*

THE ORIGIN OF THE HOLYSTONE.—At the Reformation, when the Church of St. Nicholas, at Yarmouth, was despoiled, the carved stones of many of the monuments, both in the church and outside in the graveyard, were shipped off—some to Newcastle, to be turned into grindstones, and some on board the ships of the royal navy of the day, to be used in scouring the decks, whence, it is interesting to know, the seamen's term "holystoning the deck" takes its origin.—*The Dundee Advertiser.*

BRUGSCH BEY CONFIRMS GENESIS.—The recent discoveries of Brugsch Bey in connection with the Egyptian hieroglyphics which he deciphered are the subject of an article in the *Oesterreichische Wochenschrift*, in which the writer says that it is no longer difficult to understand the origin of the "seven lean years" narrative in the Book of Genesis. The inscriptions as translated by Brugsch show that 1,700 years before the Christian era the Nile for seven consecutive years did not overflow, and famine, pestilence and misery followed. "We know," says the writer, "that the date of the seven years of fruitlessness mentioned in Genesis was 1700 B. C., and thus what has been looked upon as a fancy has through these hieroglyphics become a matter of history. The failure of the Nile to overflow, the withering of the vegetation, the lands devoid of crops, famine and the consequent scourges are all depicted in the pictures which the student has been able to decipher."

CURRENT NEWS SECTION

SOCIETIES

SOCIETY OF ARCHITECTS, BROOKLYN.

The monthly dinner and meeting of the Society of Architects was held October 30 at the Imperial. The principal topic of discussion was the combining of the building and tenement house departments. The following motion was adopted:

"The Society believes that it will be to the best interests of the public that the building and tenement house departments be combined, and that the head of the new department be a civil engineer, an architect or a builder of at least ten years' experience."

The secretary was directed to communicate with the head of the Tenement House Department, notifying him that the Society had appointed two members to act with him in revising the tenement-house law, provided any changes are contemplated.

The president reported that a committee had had a satisfactory interview with Commissioner Butler, and that a number of the recommendations made were adopted.

The organization is endeavoring to interest Manhattan architects in the work done by it. To accomplish this a number of Manhattan architects are to be invited to attend the November dinner and meeting of the Society, and it is hoped that a society will be organized in Manhattan.

WASHINGTON ARCHITECTURAL CLUB.

At a meeting of the Washington Architectural Club, held October 29, M. George Wagner of Paris was the speaker of the evening, taking for his subject artificial Caen stone. M. Wagner delivered his address in French and Mr. W. D. Windom repeated it in English to the satisfaction of his hearers. M. Wagner stated that the stone in question is used for interior decorations and is very effective. Its advantages are its durability and adaptability for molding.

The clubrooms were hung with an exhibition of drawings made by Washington architects. They represent in color many of the handsome buildings at the Jamestown Exposition and various public buildings in this city. Mr. B. S. Stewart was elected to membership in the club.

ST. LOUIS ARCHITECTURAL CLUB.

The St. Louis Architectural Club entertained most of its members October 26 at the opening meeting of the season in its headquarters in the Dolph Building, at Seventh and Locust Streets. The Club will hold regular meetings on the second and fourth Saturday nights of each month. No important business was taken up, but the Club will arrange for educational work during the winter months, and expects to remove to new quarters in another section of the city in the spring.

INDUSTRIAL INFORMATION

An anti-corrosive, metal-preserving compound called "Voltax," made by the Electric Cable Co., of New York, was used to

coat the surface of the flagpole which surmounts the Singer Building. This pole is of hollow steel tubing. Its lower thirty feet are inserted into a steel pocket that extends from the forty-third floor to the top of the tower, leaving sixty feet or two-thirds of its total length to extend into the air. This upper sixty feet tapers from 9 3/4 inches to 5 5/8 inches and is in four pieces, which telescope over one another for about 20 inches, and besides being shrunk on are tapped and bolted. The top of the pole is closed by a ball-bearing truck mounted on a cast-iron reducing coupling, into which the king-pin is screwed. This truck contains 2-inch by 4 3/4-inch bronze sheaves and revolves about the king-pin so as to prevent the flag from being wrapped about the mast. The weight of the pole is over three tons. On account of the danger of damage in transit and while being hoisted into place it was decided to defer the putting on of any preservative coating until the flag-staff was in its permanent position, over six hundred feet above the street. At such a height and in so exposed a situation the wind pressure is great and any corrosion of the metal must be carefully guarded against. The steeple climber, E. Capelle, who was found to undertake the work, applied the "Voltax" in five diluted coatings instead of using it at its ordinary consistency.

The First Annual Cement Show is to be held at the Coliseum in Chicago on December 17 to 21 next. It is to be under the auspices of the Cement Products Exhibition Company, an Illinois corporation, incorporated for the purpose of holding annual expositions of cement products. The management is in the hands of Mr. L. L. Fest, New Southern Hotel, Michigan Avenue and Thirteenth Street, Chicago, and the leading cement manufacturing interests of the Middle West are behind the movement. The exhibits will include cement, concrete mixers, machines for making concrete blocks, bricks, pipe, posts and tiles, coloring mixtures, reinforcing metal, testing machinery and, in fact, everything connected with this great and growing industry.

BUILDING NEWS

(The editors greatly desire to receive information from the smaller and outlying towns as well as from the larger cities.)

AKRON, O.—It is said that the Board of Education is receiving estimates on constructing a two-story brick and steel school on Pontage Path to cost \$50,000.

ALEXANDRIA, LA.—The Iron Mountain and Texas & Pacific Railroads, it is said, will erect a union passenger station in this city at an estimated cost of \$70,000.

Bids will be received until December 23, by the supervising architect, James Knox Taylor, Washington, D. C., for the construction (complete) of the United States Postoffice.

ARDMORE, ARK.—The trustees of the Hargrave College, it is reported, are con-

sidering the erection of a dormitory at a cost of \$50,000.

ASHLAND, WIS.—It is reported that John V. Farwell & Co., of Chicago, Ill., contemplate erecting in the spring a three-story flat building to cost about \$60,000.

ASTORIA, L. I., N. Y.—It is said that plans have been filed for an edifice which is to be erected for the First Methodist Episcopal Church at a cost of about \$55,000 at Temple and Crescent Streets.

ATCHISON, KAN.—Nathan T. Veath, Superintendent of City Schools, reports that it is proposed to erect a high school to cost, including site, \$75,000. Architect not yet selected.

ATLANTIC CITY, N. J.—Geo. E. Savage, of Philadelphia, is said to be preparing plans for a one-story church for the Tabernacle M. E. congregation, Atlantic City, to cost \$30,000.

BALTIMORE, Md.—Reports state that a site has been secured on Charles Street and University Parkway on which it is proposed erecting a cathedral for the Episcopal Church of Maryland.

Reports state that application was made at the office of Building Inspector Preston for permits for the erection of the new hospital buildings for the Hebrew Hospital, at Monument Street and Hopkins Avenue, to cost approximately \$150,000. The plans of the architect, Louis Levi, are for three buildings—a ward building, to cost \$45,000; a laundry and boiler room, to cost \$25,000, and an administration building, to cost \$80,000. All the buildings will be of brick, stone and reinforced concrete. The ward building will be four stories and 111x37 feet with three-story wings. The administration building will be four stories and an attic, 40x80 feet; the laundry and boiler room, 32x63 feet, and two stories high.

BEAVER FALLS, PA.—It is said that the Methodist Episcopal congregation will build a church. Cost, \$50,000. No architect announced.

BERKELEY, CAL.—A permit has been issued for the Berkeley National Bank, an eight-story structure, which is to be erected at Center Street and Shattuck Avenue, at a cost of \$140,000.

BLOOMINGTON, IND.—Nat. U. Hill, L. Van Buskirk and W. H. Adams, directors of the Phi Cappa Psi Association, it is reported, will receive bids for the construction of a new home or fraternity building on the college campus.

BROOKLYN, N. Y.—Plans are being prepared, according to report, by Architect D'Oench & Yost, 289 Fourth Avenue, Borough of Manhattan, for an addition to the jail for the Borough of Brooklyn. Cost, \$350,000.

Press reports state that Architect Raymond F. Almirall, New York City, will prepare plans for a four-story library building for the Brooklyn Public Library at a cost of \$3,000,000.

BUFFALO, N. Y.—The Board of Governors of the Homeopathic Hospital are said to have decided to erect a new hospital at Linwood and Lafayette Avenues, to cost \$100,000.

BURLINGTON, VT.—Members of the First Baptist Church are reported to be raising \$40,000 with which it is proposed erecting a new edifice.

CHARLESTON, ILL.—J. H. Marshall, Trustee State Normal School, reports that W. Carbys Zimmerman, State Architect, Chicago, is preparing plans for the erection of a dormitory at Charleston for the State Normal School, to cost about \$100,000.

CHATTANOOGA, TENN.—It is stated that work will begin in a few days on the post-office addition, which is to cost \$110,000. The addition will consist of a two-story wing.

CHEROKEE, IA.—Architect H. F. Liebbe, Capitol Building, Des Moines, is reported to be preparing plans for the erection of an addition to the State Institute to be built by the State Board of Control, Des Moines. Cost, \$50,000.

CHICAGO, ILL.—The members of Sheridan Park Methodist Church, it is stated, intend erecting an edifice at Wilson Avenue and Sheridan Park, estimated to cost \$75,000.

It is reported that the Lithuanian-Americans of Chicago have secured a site at Forty-sixth Street and Western Avenue, on which it is proposed erecting a hospital costing about \$500,000. Joseph J. Elias is President of the Board of Control of the Trustees.

Edward Benson, architect, 1779 North Clark Street, is reported to be preparing sketches for a fifty-four-flat building near Park Boulevard. The structure will have three stories, 165x200 feet, and will be built of press brick with gravel roof, structural, architectural and ornamental iron, oak finish and floors, marble, mosaic and tile, consoles, mantels, gas and electric fixtures. Cost, \$125,000.

Architect A. Sandegren, 164 Dearborn Street, has completed plans for a three-story apartment house, 131x167 feet, to be built for F. A. & A. W. Anderson, at the southwest corner of Indiana Avenue and Forty-fifth Street. It will contain eighteen apartments and will cost \$75,000. It will have front of pressed brick with stone trimmings, composition roof, steam heat, electric light, tile and marble work and the latest improvements and appliances.

Architects Marshall & Fox, 164 Dearborn Street, it is said, are at work on plans for a four-story warehouse, covering 240x109 feet, to be built for A. C. McClurg & Co., at the southeast corner of Ohio and Ontario Streets. It will be of reinforced-concrete construction with exterior of brick. It will cost \$150,000. Plans will call for electric light, elevators, etc.

CHILLICOTHE, O.—It is reported that plans are on foot looking towards the erection of a \$100,000 court house to be erected for Livingston County. Further particulars may be obtained by addressing F. K. Thompson, chairman.

CHIPPEWA FALLS, WIS.—Plans are being prepared, according to report, by Architects Claude & Starck, Madison, for the erection of a sanitarium to cost \$300,000. Dr. Clark Gapen, of Madison, is at the head of the project.

CINCINNATI, O.—Edward H. Dornette has finished plans for a three-story and basement addition, 150x200 feet, to the Eighteenth District School Building, Camp

Washington, for the Board of Education. Cost, \$125,000. Bids will be received by the Board in about thirty days.

Plans are being prepared by Edward H. Dornette, Pickering Building, for a three-story and basement press brick school building, 140x270 feet, at Linn Street and Armory Avenue, for the Board of Education, William Grautman, clerk. The building will contain twenty-seven class rooms, kindergarten, manual training and domestic science department, gymnasium and auditorium. Cost, \$200,000. Bids will be received by the Board about April 1.

The congregation of the Bene Israel of Avondale is said to be planning the erection of a synagogue costing about \$200,000. Simon Greenbaum, president of the congregation.

It is said that plans are being prepared for the Hamilton county court-house and jail to be built at a cost of \$250,000.

It is reported that new bids will soon be received by Architect Harry Hake, Union Trust Building, for a bank and office building to be erected for the Provident Savings Bank and Trust Company. Estimated cost, \$300,000.

COEUR D'ALENE, IDAHO.—It is reported that plans have been completed for a \$50,000 edifice to be erected for the members of the Roman Catholic Church. Rev. Father Purrell, Pastor.

COLUMBIA, MO.—Reports announce that the State University is having plans prepared by Cope & Stewartson, Security Building, St. Louis, Mo., for the erection of an agricultural building; two stories and basement, 70x245 feet; brick and stone. Cost, \$150,000.

CONWAY, ARK.—Architect C. L. Thompson, Arkansas Building, Little Rock, is said to be preparing plans for a school building at Conway for the State Department of Education. Estimated cost, \$65,000.

COOPERSVILLE, MICH.—It is stated that competitive plans are being received for a school to cost about \$25,000.

CRESTLINE, O.—The committee appointed to investigate the matter of rebuilding the court house have reported favorably, and the proposition to rebuild it at the cost of \$80,000 will be submitted to the voters.

DALLAS, TEX.—Hella Temple, Ancient Arabic Order of the Mystic Shrine, it is stated, will erect a temple and auditorium here to cost about \$150,000. John G. Hunter, Commerce and Lamar Streets, is the chairman of commissioners in charge of organizing the stock company to prepare plans.

DECATUR, ILL.—The members of St. Patrick R. C. Church, it is reported, are planning the erection of a \$100,000 edifice.

DES MOINES, IA.—It is reported that the council voted to adopt plans of Proudfoot & Bird, architects, for the proposed city hall. Cost, \$350,000.

DETROIT, MICH.—Sealed proposals will be received at the office of the Supervising Architect, James Knox Taylor, Washington, D. C., until 3 o'clock P. M. on the 17th day of December, 1907, and then opened, for the construction complete (except lifts), of the extension to the U. S. Post Office and Court-house, at Detroit, in accordance with the drawings and specifications, copies of which may be had at the

office of the Supervising Architect or at the office of the custodian at Detroit, Mich., at the discretion of the supervising architect. James Knox Taylor, supervising architect.

Bids will be received until December 17 by the supervising architect, James Knox Taylor, Washington, D. C., for the extension to the United States post-office and court house.

DUQUOIN, ILL.—It is reported that a large Catholic church is to be erected at Willisville. Rev. E. Senese is pastor.

EBENSBURG, PA.—Boyd & Hall are preparing plans for the addition which the county commissioners intend erecting to the jail at Ebensburg, to cost \$50,000.

ENID, OKLA.—The Denver, Enid & Gulf R. R. (R. J. Parker, General Superintendent Central Grand Division, Newton, Kan.), it is reported, will erect a depot here at a cost of about \$50,000.

FAR ROCKAWAY, L. I., N. Y.—Messrs. Cram, Goodhue & Ferguson, New York, have completed plans for the Sage Memorial Church to be erected at Far Rockaway, for the First Presbyterians.

FORT SMITH, ARK.—A. Klingensmith, 521 Gar. Avenue, is reported to have prepared plans for a \$50,000 school to be erected here, contract for which will soon be let.

FT. WORTH, TEX.—The Ft. Worth Stock Yards Co., according to reports, will erect a \$150,000 coliseum.

GALION, O.—It is reported that plans have been prepared for an edifice to be erected for the German Reformed Congregation. Address Joseph King. Cost, \$30,000.

GALVESTON, TEX.—It is said that work will soon begin on the proposed Government immigrant landing station at Galveston, to cost about \$200,000, of which \$70,000 is now available. Sleeping accommodations for about 500 will be provided. Foundation, it is understood, will be of concrete and piling. It will also be necessary to do some dredging and build wharves, enabling steamers to pass up and berth for the landing; E. B. Holman, inspector in charge of the Galveston station.

GARY, IND.—The Gary Presbyterian Church, according to report, has secured a site upon which to erect a new church. Bids will be received by the trustees as soon as plans are completed.

Architect Charles E. Kendrick, Minnesota Block, has prepared plans for a three-story clubhouse, 50x117 feet, for the Gary Commercial Club, Captain H. S. Norton, president. Cost, \$50,000.

GENEVA, N. Y.—Plans and specifications have been prepared by Architect A. C. Nash, 27 E. Second Street, this city, for a city hall to be built at Geneva. Plans call for a three-story building to be built of brick and stone, with steam heat, electric light and all modern improvements. The cost will be about \$100,000.

GLENDAL, N. Y.—A four-story brick school, 154x166 feet, will be erected by the city, according to report on Myrtle Avenue between Washington Avenue and Ridgewood Place, Glendale, for which Architect C. B. J. Snyder has prepared plans. The cost is placed at \$315,000.

GREEN BAY, WIS.—Designs submitted by C. E. Bell, Bank of Commerce Building, Minneapolis, Minn., for the courthouse to

be erected by Brown County at a cost of about \$250,000 were adopted by the Building Committee of the County Board.

GREENFIELD, MASS.—Plans drawn by W. J. Howes, Holyoke, Mass., for a library building for the town have been accepted. Henry F. Nash is member of the building committee.

HARRISBURG, ARK.—Specifications have been drawn and arrangements made to begin work at once on the new Methodist church at Pleasant Valley. S. A. Bettis was elected treasurer and R. M. Bedwell, president of the building committee.

HAZLETON, PA.—It is said that Geo. W. Beard & Co., of Philadelphia, have secured the contract to erect an addition to the State Hospital at Hazleton at a cost of about \$60,000.

HOLLAND, MICH.—Plans are being prepared, it is said, for the erection of a city hall to cost \$50,000.

HOUSTON, MISS.—The Board of Supervisors of Chickasaw County, it is stated, has ordered an issue of \$65,000 bonds to erect a court-house and will consider plans at its November meeting.

HOUSTON, TEX.—D. H. Burnham & Co., Chicago, Ill., represented in Houston by W. S. Stevens, will revise plans for proposed office building for the estate of T. H. Scanlan, making the structure fifteen stories high instead of eleven stories as originally intended. Building will be 85x101 feet; three stories of Texas granite, balance of brick and terra-cotta; steel frame construction; staircase of marble and metal; marble flooring; two electric elevators; hot and cold water; electric lights; fans; steam heat, etc.

INDIANAPOLIS, IND.—Architects Foltz & Parker, 28-31 Union Trust Building, have about completed plans for a four-story building for the Young Men's Christian Association. W. H. Goddard, secretary. Estimated cost, \$250,000.

JACKSONVILLE, FLA.—The building commission of the Masonic fraternity of Florida, Elmer E. Haskell, chairman, will open bids December 10 for furnishing materials and performing labor for building Masonic temple and office building according to plans and specifications by L. M. Weathers Company, Memphis, Tenn. Blank forms of bids, specifications and blue-prints on file at office of secretary of committee, George L. Drew, 106 Main Street, Jacksonville. Certified check \$1,000, payable to chairman. Surety company bond for \$40,000, to be executed within thirty days after being notified. Bids must be without interlineations of changes. Bids will be received on several forms of construction, as named in specifications. Bidder must furnish information regarding buildings of fireproof construction erected by him, cost of same, location, etc.; usual rights reserved.

JOHNSTOWN, PA.—The directors of the Johnstown Trust Company have accepted preliminary sketches for an eight-story fireproof bank and office building to cost about \$150,000.

KANSAS CITY, KAN.—It is stated that W. W. Rose has prepared plans for a three-story Masonic temple for the Masonic Order, care Judge Holt and Dr. J. Lutz. Estimated cost is \$100,000.

KANSAS CITY, MO.—Albert Owens,

Dwight Building, according to report, is preparing plans for an office building to be erected on Walnut and Tenth Streets, to cost \$50,000.

It is said that the First Presbyterian congregation has had plans prepared by Wilder & Wight, First National Bank Building, for erection of edifice; 75x98 feet; brick, stone and terra-cotta.

It is said that plans are being prepared by Architect Rudolph Markgraf, 203 New Shuckert building, for a hotel to be erected for the W. W. Goodwin Securities Company, at a cost of \$75,000.

Architect H. Felt is reported to be preparing plans for the Jackson Avenue Christian Church, to be erected on Seventeenth Street and Jackson Avenue at a cost of \$35,000.

Plans have been prepared, it is said, by Architect James Oliver Hogg, for the new Bradley-Alderson Building, to be erected in Rosedale on Hill Street, to cost \$60,000.

KNOXVILLE, TENN.—Central Young Men's Christian Association will have plans prepared by Barber, Klutz & Graf for an annex to present building; E. H. Scharringhaus, chairman building committee.

William Caswell is having preliminary plans prepared for the erection of a hotel; four stories; about 75 rooms; private baths. Mr. Caswell is negotiating with Charlton Karnes, owner of Watauga Building, a 125-room structure adjoining, relative to bridging the alley and connecting the two buildings, making a 200-room hotel, 300x125 feet.

Knoxville Auditorium Co., incorporated with \$75,000 capital stock, is having plans prepared for erection of proposed auditorium and hippodrome; 300x80 feet; arcade, 50x92 feet; main entrance, 50x92 feet. Work on structure will begin within 30 days, and a similar building to rink will be erected adjoining rink building. The "Old Homestead" will be remodeled as hotel. C. B. Atkin is president, Charles McNabb vice-president, and William G. Brownlow secretary-treasurer. Buildings will be erected by the Auditorium Hotel Co. and leased by the Hippodrome Amusement Co.

LA GRANGE, ILL.—J. C. Llewellyn, 1518 First National Bank Building, Chicago, is reported to be preparing plans for the erection of a bank and office building for the La Grange Trust & Savings Bank, to cost about \$50,000.

LA JUNTA, COL.—The citizens of La Junta are reported to be planning the erection of a \$50,000 Y. M. C. A. building.

LAKE CHARLES, LA.—It is stated that Baptist congregation will erect edifice 62x106 feet; gray pressed brick; plans prepared by I. C. Carter. Construction work has begun under the supervision of the architect and management of W. H. Robinson.

LANCASTER, PA.—Seymour & Paul A. Davis, 1600 Chestnut Street, Philadelphia, have prepared revised plans for the several buildings to be erected at the Thaddeus Stevens Orphan Home near Lancaster.

LAPEER, MICH.—It is said that the Board of Supervisors is considering the erection of a court house in Lapeer County at a cost of \$100,000.

LEAD, S. D.—Plans are being prepared, according to report, for a site for the erec-

tion of a public library by the Lead Commercial Club. Cost, \$90,000.

LEWISTON, IDA.—Proprietor Dennis Holland, of the Hotel de France, it is said, has purchased a plot of land adjoining his hotel and will build a three-story addition on the site.

LEWISTON, MONT.—Plans for the bank building for the Empire Bank Trust Company are reported to have been prepared by Architect N. C. Gauntt, North Yakima, Washington. Estimated cost, \$100,000.

LEXINGTON, KY.—The School Board, it is stated, is arranging to erect a new school and make improvements to other buildings at a total cost of \$55,000.

LITTLE ROCK, ARK.—Gibb & Sands, of Little Rock, it is reported, have completed plans for the five-story dormitory which is to be erected at the Philander-Smith Methodist College.

LLANERCH, PA.—Plans and detailed specifications have been prepared by Henry L. Reinhold, Jr., architect, for a large residence to be erected at Llanerch. It will be of colonial design and an exterior of stone and will have interior finish of hardwood throughout, three stories high, and measuring 20x50 feet.

LONG ISLAND CITY, N. Y.—On Temple Street, southwest corner Crescent Street, Long Island City, the First Methodist Episcopal Church, it is said, will erect a one-story brick church and Sunday school, 64 x130 feet, to cost \$55,000. F. Y. Parsons is architect.

LOS ANGELES, CAL.—Press reports announce that a new structure will be erected on Washington Street and Van Ness Avenue for the Church of Messiah. Rev. Stanley Ross, pastor. Work on the church building will be begun immediately. The lot has a frontage of 140 feet on Washington Street and 160 feet on Van Ness Avenue, and it is the plan to erect a group of buildings for church purposes, to be composed of the church building proper, parish house and parsonage, to form a court in the center, the parish building and church to be connected by cloisters. The building will be in the perpendicular Gothic, the tower to bear a strong resemblance to that of the famous Canterbury Cathedral. The buildings will be of brick throughout. The tower will be 112 feet high and later will contain a chime of bells. The whole building is expected to cost about \$125,000. Work will soon be commenced on the chapel, which will form the parish house when the structure is completed. The chapel will cost about \$25,000 and will be a complete building in itself. It will have a seating capacity of 500 and will augment the church work. In the building will be kitchen and dining hall, social and clubrooms and a gymnasium and other facilities to make it a social center in the neighborhood.

LYNN, MASS.—Wheeler & Betton are reported to be preparing plans for an addition to the Episcopal Church of the Incarnation. Address Rev. W. I. Merse, pastor, 20 Kings Beach.

MACON, GA.—The Grand Lodge of Masons, according to report, will erect a new temple in this city to cost about \$100,000.

MADISON, WIS.—It is stated that the university regents have plans for the proposed dormitory building, to cost \$200,000, and

will receive bids about December 1. Arthur Peabody, architect.

MANKATO, MINN.—The Board of Control at St. Paul, it is stated, has rejected all bids recently received for erecting the State Normal School at Mankato, as they exceeded the appropriation, which is \$65,000.

MARION, IND.—Bids will be received by J. Knox Taylor, supervising architect, Treasury Department, Washington, D. C., for the construction and completion, plumbing, piping, heating apparatus, wiring, etc., of a Federal building in this city.

MEMPHIS, TENN.—It is reported that the Weber Concrete Co., Randolph Building, will soon erect a six or eight-story building, to cost \$150,000.

MERIDEN, CONN.—Press reports state that Morton F. Plant will erect at his own expense and donate to the town of Groton a large stone building to be used as a public building.

MILWAUKEE, WIS.—The County Board is reported to be considering the erection of a juvenile court building and a detention home, to cost \$60,000.

Architects Van Ryn & DeGelleke are reported to be preparing plans for the new Normal School to cost about \$200,000.

New bids will be advertised for by the Board of Public Works for the erection of the proposed Eleventh District school building. Leenhouts & Guthrie, architects, 106 Wisconsin Street. Cost, \$90,000.

Ferry & Clas, architects, it is said, are preparing plans for the proposed \$200,000 addition to the Milwaukee public library and museum building on Eighth Street and Grand Avenue. It will be 32x107, three-story, stone facing and brick construction. Henry L. Ward, director.

The auditorium board has rejected all bids for the completion of the auditorium building, and new bids will be taken.

MINERAL WELLS, TEX.—It is said that Sidney Webb, Bellevue, Tex., will erect a pavilion (at the Crazy Well); to be fireproof, 100x200 feet, and cost \$55,000.

Reports state that a hotel will be erected by Messrs. Baker & O'Neil, at a cost of \$400,000.

MINOT, N. D.—The Lodge of Elks, it is stated, intends erecting a \$60,000 building here.

NASHVILLE, TENN.—It is stated that the Elks are planning the erection of a five-story lodge building to cost about \$100,000.

NEW HAVEN, CONN.—Plans are being perfected, according to report, for a new sea-shore hotel to be erected at Savin Rock on a new pier to be erected by a syndicate of New York and Brooklyn capitalists. It is said that the building will be of wood construction and cost about \$100,000. Col. George D. Russell, of Norwalk, Conn., is reported to have charge of the matter.

Reports state that the plans for the proposed new building in Allingtown for the New Haven County Home will be completed in about two weeks. The structure will be three stories high, of brick, and will accommodate about 200 children. There is an appropriation of \$100,000 for the building.

NEW YORK, N. Y.—It is reported that Sommerfeld & Steckler, 19 Union Square, have been commissioned to prepare plans for three high-class apartment houses to be situated at the southeast corner of Am-

sterdam Avenue and 158th Street, and the east side of 158th Street, 100 feet east of Amsterdam Avenue, for Mr. J. Katzman, 622 West 137th Street. Light brick terra-cotta and limestone fronts, marble, tile and mosaic work, steam heat, electric lighting, hardwood finish. No sub-contracts have yet been issued.

It is announced that plans for the Lotus Club, a seven-story building to be erected at 110 West Fifty-seventh Street, have been filed. Probable cost, \$350,000. Donn Barber, 24 East Twenty-third Street, is the architect.

Plans have been filed for a three-story residence to be erected for M. Schinasi at Riverside Drive and 170th Street, to cost \$118,000.

Press reports state that plans are soon to be prepared by Architects Heins & LaFarge, No. 30 East Twenty-first Street, for the construction of a fireproof school building for deaconesses to be situated on Cathedral Heights, on property of the Cathedral of St. John the Divine, above Morningside Park. No figures have yet been taken or contracts let. Rev. Dr. Huntington, Chairman Building Committee, 804 Broadway, can inform.

Philip Braender, builder, No. 143 West 125th street, is reported to be making arrangements for the erection of another store and loft building to cover a plot at the southwest corner of Broadway and Fourth Street now occupied by five and six-story buildings. It is said that no plans have yet been prepared or architect selected.

It is rumored that the Title Guarantee & Trust Co. will soon start building an apartment house in 149th Street, west of Third Avenue.

Plans have been filed for the erection of a five-story brick and stone dwelling at Fifth Avenue and Seventy-sixth Street for Mrs. J. J. Wysong. Cost, \$80,000.

David Spiro, 656 Broadway, will soon have work started on a large new business building (lofts) which he will erect at 19 West Twenty-first Street from plans and specifications by Architect R. D. Kohn, 170 Fifth Avenue. It will be a twelve-story building, measuring 96x105 feet, and will cost about \$350,000. Plans provide for a brick, stone and iron structure, composition roof, steam heat, electric light, elevator, tile and mosaic work, etc.

NORFOLK, VA.—It is reported that East & Hobbs are planning the erection of a \$65,000 apartment house.

OAKLAND, CAL.—Olivier & Foulkes, of Oakland, it is reported, have completed plans for a seven-story concrete and brick building which is to be erected for doctors and dentists at Jackson and Thirteenth Streets, at a cost of about \$300,000.

OSSINING, N. Y.—Wilson Potter, of New York City, it is said, has completed plans for a high school building for the Board of Education, Ossining, N. Y.

OTTAWA, CANADA.—Reports state that the City Council has approved the Major Hill Park site for the new Grand Trunk Hotel. The cost of the hotel and station will be \$2,500,000.

PENSACOLA, FLA.—The Florida Life Insurance Company will erect a nine-story office building to cost about \$125,000.

PHILADELPHIA, PA.—Cope & Stewardson,

architects, 320 Walnut Street, according to reports, will invite estimates in a few days on the new building for the College of Physicians, at Twenty-second and Ludlow Streets. The structure will cost about \$300,000. They are also said to be preparing plans for an extension to the veterinary college of the University of Pennsylvania at Thirty-ninth and Spruce Streets.

The directors of the Academy of Science, it is stated, have engaged Wilson, Harris & Richards, Drexel Building, to prepare plans for a three-story 50x130 feet white marble addition, which it is proposed erecting at a cost of about \$125,000.

James H. Windrim, Commonwealth Trust Building, is reported to have completed plans for a gymnasium 124x118 feet to be erected at Girard College. The building is to be of steel, brick, granite and marble, one story high.

John Wanamaker is reported to have awarded to the Thompson-Starrett Co., New York, N. Y., the contract for the brick and steel work on the second half of the department store on Chestnut and Thirteenth Streets. The building when completed is to be a twelve-story structure.

It is stated that a twenty-story office building will soon be erected at the corner of Broad and Cherry Streets, at a cost of \$3,000,000. The proposed structure will occupy two lots owned by the Hugh Craig estate. The entire property has a frontage of 137 feet on Broad and Carlisle Streets and a depth of 180 feet on Cherry Street.

A three-story addition is being planned by Wilson, Harris & Richards, architects, Drexel Building, Philadelphia, for the Academy of Natural Sciences. The addition will occupy a lot 50x300 feet on Nineteenth Street. Estimated cost, \$125,000. The architectural design and the material for construction have not yet been fully decided upon.

The Lutheran Hospital is reported organized, with Rev. S. D. Daugherty, president, and Dr. Luther C. Peters, secretary, for the purpose of erecting a hospital.

Press reports announce that a building to cost about \$1,000,000 will be erected on Park Boulevard, facing Fairmount Reservoir. It will consist of three wings and will be occupied by the Academy of Fine Arts, the School of Industrial Art and the Department of Architecture of the University of Pennsylvania. P. A. B. Widener, Land Title Building, Philadelphia, is interested.

The Columbia Turn Verein, who recently purchased the property at Twenty-eighth and Cabot Streets, has had plans prepared, according to report, by Carl P. Berger, architect, for a new clubhouse to be erected on the site. Designs show a two-story building, measuring 20x65 feet. It will be built of brick and stone and will have steam heat, electric light and all modern improvements and appliances.

It is said that plans and specifications are being prepared by Watson & Huckle, architects, for an addition to the building of the Germantown National Bank at Germantown Avenue and School Lane. The addition will be two stories high, measuring 30x100 feet. It will be built of stone and iron, fireproof, and the interior will be handsomely finished and decorated and provided with all modern appliances.

The Philadelphia Turngemeinde is reported to be planning the erection of a new clubhouse. It is proposed to raise between \$150,000 and \$200,000 for this purpose.

It is said that plans are being prepared by Architects Bolton & Son, Witherspoon Building, for the erection of a church for the First Presbyterian congregation. Rev. W. L. Mudge, pastor. Cost, \$60,000.

Press reports state that William H. Wanmaker has purchased a tract of land near Montgomery and Highland Avenues, Merion, from W. H. Wilson & Co. As soon as an architect is selected plans will be prepared for the erection of a large suburban residence.

PHOENIX, ARIZ.—Bids will be received by J. W. Dorris, Chairman of the Committee, up to 9 A. M., November 20, 1907, for the erection of a Y. M. C. A. building at Phoenix. Plans may be examined by contractors at the office of J. W. Dorris and at the office of Trost & Creighton, architects, Room 412 Fleming Block. All bids must be accompanied by a certified check of \$1,000, made payable to the chairman of the building committee. The committee reserves the right to reject any or all bids.

PITTSBURGH, PA.—Architect D. A. Crone, house building, Pittsburgh, Pa., it is reported, has plans for a synagogue for the Gates of Wisdom Jewish congregation. Cost, \$40,000.

The improving of the Municipal Hospital, at a cost of about \$150,000, is reported under consideration.

Herbert L. May, Fifth Avenue and Market Street, according to report, proposes to erect a ten-story building on Fifth Avenue, near Smithfield Street, to cost approximately \$500,000. It is said that no architect has as yet been selected.

The members of the American Republican Club, it is stated, are planning the erection of a new clubhouse on Grant Boulevard, at a cost of about \$175,000, exclusive of site.

J. H. Craig, it is reported, intends erecting a twelve-story brick business building on Burchfield Street.

It is said that plans have been formulated to enlarge the Municipal Hospital to make it a real hospital building. Cost, \$150,000. Address Director of Charities Shaw, City Hall, Pittsburg.

PLAINFIELD, N. J.—Reports state that plans by Architects Hill & Stout, of New York, have been accepted by Rutgers College, Plainfield, for a new engineering building to be erected for the college. New York builders will figure. The new building will be constructed of brick and stone, with steam heat, electric light, hardwood finish and floors and the latest appliances in all lines. Cost, \$60,000.

POUGHKEEPSIE, N. Y.—Jackson & Rosenkrantz, of Brooklyn, are reported to have been commissioned to prepare plans and obtain estimates for a new Y. M. C. A. building, to cost \$100,000, to be erected on Market Street.

QUINCY, ILL.—The Schlitz Brewing Company, of Milwaukee, it is stated, has purchased a site on Oak Street and will build a forty-room hotel at once.

RALEIGH, N. C.—Reports state that plans are being prepared for the erection of a hospital by the Apostolate Society of the Roman Catholic Church. Cost, \$50,000.

RICHMOND, VA.—Grounds and buildings

committee has accepted plans by Charles K. Bryant for the erection of an armory for the Richmond Light Infantry Blues to cost about \$150,000. Plans have been forwarded to Council.

ROCHESTER, N. Y.—The D. B. N. Club, a fraternal organization of the Ninth and Fifteenth Wards, according to report, has purchased a plot of land at the southeast corner of Lyell Avenue and Child Street and will erect a clubhouse there. Plans are now in the hands of the house committee.

SAGINAW, MICH.—W. S. Linton, John L. Jackson and E. L. Hardwick are reported appointed as trustees for the auditorium which is to be erected at a cost of about \$100,000.

ST. AUGUSTINE, FLA.—It is said that St. Joseph's Convent will erect an annex at a cost of between \$35,000 and \$40,000. Address Right Rev. Bishop Kenny, care of St. Joseph's Convent.

ST. JOSEPH, MO.—It is reported that the members of the First Christian Congregation are planning the erection of an edifice at Tenth and Edmond Streets, to cost \$75,000.

ST. LOUIS, MO.—The Christian Orphans' Home, according to report, will erect a building at a cost of \$100,000.

The Lithburn Realty Company, it is reported, has had plans prepared by Architects Mauran, Russell & Garden, Chemical Building, for the erection of an eighteen-story store and office building, 80x127 feet. Estimated cost, \$700,000.

Reports state that the Sussex Realty Company will erect a five-story store and office building, 40x100 feet, to cost \$50,000. Architects Milligan & Wray, Chemical Building, prepared plans.

J. B. Legg, Missouri Trust Building, it is said, will prepare plans for a storage warehouse; six stories, 74x102 feet. Cost, \$100,000.

George H. Kennerly, Benoist Building, is preparing plans for a three-story apartment building for Claude Vrooman, 8 1-2 North Eighth Street. Brick, Carthage stone and terra cotta, hard plaster, architectural, ornamental and structural iron and steel will be used for construction. Cost, \$200,000.

Architects Eames & Young, Chestnut and Seventh Streets, are reported to be preparing plans for an industrial trades school building for David Ranken. Estimated cost, \$300,000. Previously mentioned.

ST. PAUL, MINN.—The erection of a new wing at the City and County Hospital (Dr. A. B. Decker, Superintendent), to cost about \$120,000, is reported under consideration. Clarence H. Johnston, Manhattan Building, is the architect.

Cass Gilbert, Endicott Building, is reported to be preparing plans for a three-story pressed brick and cut stone, fireproof Mechanic Arts High School Building, to be built at Central Avenue and Robert Street. It will be 100x200 feet and work begun early in the spring. Cost, \$200,000.

The State board of control is reported to be considering the erection of an addition to the city hospital to cost \$120,000.

Plans are being prepared by Architect Clarence H. Johnson, 712 Manhattan Building, for the erection of a three-story addition to the city and county hospital. Cost, \$120,000.

ST. STEPHENS, ALA.—John R. Markley, of Markley & Miller, of Chicago, Ill., is reported to be interested in a company which proposes constructing a cement plant in St. Stephens. Probable cost, \$2,000,000.

SALT LAKE CITY, UTAH.—Reports state that plans have been completed by William Carroll for the erection of an apartment building at a cost of \$65,000 for W. W. Hall.

SAN ANGELO, TEX.—It is reported that the proposed Federal Building will soon be erected in this city. An appropriation of \$100,000 is reported available for the building.

SAN FRANCISCO, CAL.—Building Superintendent Barnett is reported to have recommended to the supervisors the erection of a seven-story city hall to replace the destroyed structure.

SCRANTON, PA.—It is said that plans are being prepared by Architect R. W. Snyder for a new church to be erected on Vine Street, at a cost of \$35,000.

SEATTLE, WASH.—The University of Washington is reported to have taken out a permit for the erection of a fireproof chemistry building, two-story and basement, to cost \$220,000, and also for a one-story engineering building, to cost \$90,000. Howard & Galloway, architects.

Plans are being prepared, according to report, for a hospital to be built at Seventeenth and Jefferson Streets, by the Sisters of Providence. Cost, \$800,000.

Reports state that the School Board has decided to build three school houses. There will be a twelve-room building, to cost \$40,000; an eight-room building, to cost \$25,000, and a third building of about the same cost as the second.

It is reported that the members of the Methodist Episcopal Church South are planning the erection of a \$75,000 edifice.

The Kenney Presbyterian Home has taken out a permit for the erection of a three-story brick and terra cotta building at 7100 Fauntleroy Avenue, to cost \$90,000.

The Sisters of Providence, according to reports, will erect a hospital at Seventeenth Avenue and Jefferson Street, at a cost, including site, of about \$800,000.

Architect J. F. Everett, Walker Building, is reported to be preparing plans for remodeling the building at First Avenue and Madison Street, owned by F. K. Struve, to cost \$100,000.

SILSBEE, TEXAS.—It is reported that plans are being prepared for the erection of a hotel by the Gulf, Colorado & Santa Fe Railway Company at a cost of \$70,000.

SOUTH RIVER, N. J.—Estimates were filed this week at the office of Henry D. Dagit, architect, of this city, for the general contract for a large new church to be built at South River for the Roman Catholic parish of St. Mary's. Designs show a one-story building, measuring 50x120 feet, to be built of brick and stone and to be handsomely finished and decorated.

SPRINGFIELD, N. Y.—It is reported that the plans of E. E. Joralemon, 228 Second Street, Niagara Falls, for the new school have been accepted. The estimated cost is \$75,000.

TACOMA, WASH.—The F. S. Harmon Co., it is said, will erect an eight-story brick building, to cost about \$150,000, on Pacific Avenue near Twenty-first Street. It will be of mill construction with fireproof walls.

The Ancient Order of Vikings, according to report, is planning the erection of a building to cost about \$100,000.

TERRE HAUTE, IND.—It is reported that all bids received October 30 for the erecting of a jail have been rejected, as they exceeded the amount available, which is \$75,000. The County Council, according to later reports, has appropriated an additional \$50,000, making \$125,000 available.

TOLEDO, O.—Plans are being prepared by Architect W. B. Hunt, according to report, for a ten-story apartment building to be erected on Bancroft and Horton Streets. Cost, \$75,000.

We are advised that Gen. C. M. Spitzer, owner of the Spitzer Building, has commissioned Architects Bacon & Huber, Spitzer Building, to prepare sketches for a physicians' office building which will be erected on Madison Street. It will be about four stories high, modern, with elevators, and cost \$65,000. **M**

William B. Hunt, Spitzer Building, is preparing plans for a ten-story apartment building which will be erected on Collingwood Avenue early next summer by the Belvedere Building Company, care the Belvedere, Toledo, O. It will be of brick, slow burning, and modern. It has not yet been decided whether solid construction or steel will be used. **M**

The Lake Shore and Michigan Central division of the New York Central lines will erect a million dollar passenger station at this place, according to official advices received here from D. C. Moon, general manager. Construction is to start next summer. Details as to size, construction, etc., have not yet been announced. **M**

We are advised that Architect Sidney Afel, Ohio Building, has started plans for a new Jewish synagogue which is to be erected on Woodruff Avenue by the B'Nai Israel congregation, the Rev. Jacob Silverman, pastor. It will be 60x120 feet in dimensions, built of paving brick with pressed brick wainscoting, cathedral glass, have a seating capacity of 1,000, and cost \$50,000. **M**

TOPEKA, KAN.—Sealed proposals will be received by the State Board of Control at their office in the city of Topeka until 2

o'clock P.M., Saturday, November 30, 1907, for the furnishing of all labor and materials necessary for the erection and construction of a new custodial building at the school for feeble-minded youth at Winfield, Kan. All of the foregoing to be executed in strict accord with the plans, details and specifications prepared for the same by John F. Stanton, State architect. Copies of the plans and specifications can be seen on file at the office of the Board of Control, Topeka, Kan., at the office of the superintendent of the institution, and at the office of the State architect, at the Capitol Building, Topeka. All bids or proposals shall be made to the Board of Control and shall be accompanied by a certified check on some responsible bank for 5 per cent. of the amount bid, payable to the Board of Control, and the same shall be forfeited to the State in case the successful bidder fails for five days to enter into a contract and furnish the required bonds, as prescribed by law, after the awarding of the contract.

UNIVERSITY, ALA.—Frank Lockwood, architect, Adams Street, Montgomery, Ala., is reported to be contemplating plans for the State University for a fireproof geological and biological building, combined power plant and engineering building and academic building; also for the enlargement of chemical laboratory. Estimated cost, \$400,000. G. H. Jones is Registrar. Previously reported.

VANCOUVER, B. C.—It is reported that D. Spencer, Ltd., of this city, have taken out a permit for the erection of a new store and arcade at a cost of \$240,000.

It is reported that Macdonald, Snyder & Wilson, of Victoria, B. C., have secured the general contract for the proposed Courthouse here. Contract was about \$400,000.

WALDOBORO, ME.—Sealed proposals will be received at the office of the Supervising Architect, James Knox Taylor, Washington, D. C., until 3 o'clock P.M. on the 5th day of December, 1907, and then opened, for the construction (except plumbing, electric wiring and conduits) of the extension to the United States Postoffice and Custom House, Waldoboro, in accordance with the drawings and specification, copies of which

may be had at the office of the Supervising Architect or at the office of the custodian at Waldoboro, Me., at the discretion of the Supervising Architect.

WASHINGTON, D. C.—Elliott Woods, Superintendent United States Capitol Building and Grounds, will receive bids until November 27 for steel framing for roof of office building for United States Senate. Plans and specifications can be obtained on deposit of certified check of \$25.

Marsh & Peter, 530 Thirteenth Street, N. W., are preparing plans for a school of sixteen classrooms and an assembly hall, to be erected at Mt. Pleasant, to cost about \$100,000. Bids will probably be called for in January by the District Commissioners.

It is reported that plans are being prepared by Architects Hornblower & Marshall, 1516 H Street, Northwest, for the erection of a residence at the corner of T Street and Connecticut Avenue, Northwest. Cost, \$100,000.

It is reported that the architects for the proposed new Imanuel Baptist Church Sunday-school house and church. Messrs. Stone and Averell, are engaged in the preparation of the detailed drawings for the first building, and announce that they expect to have same ready for the building committee within a very short time. Promptly upon the acceptance of the plans, contracts for the work will be given out and the building pushed to completion with all possible speed.

WATERVILLE, MINN.—The President of the Board of Education writes that an architect has not yet been selected for the new high school, for which the citizens recently voted to issue \$30,000 bonds.

YOUNGSTOWN, O.—Owsley & Boucherle are reported to have completed plans for a four-story Court-house to be built for the Mahoning County Commissioners. J. A. Cooper, Clerk, to cost \$900,000. Bids will be received after November 10.

It is reported that Architect Albert Kahn, 1,117 Union Trust Building, Detroit, Mich., has prepared plans for a granite bank building, 45x140 feet, to be constructed on Federal street for the First National Bank. Estimated cost, \$200,000.

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PROPOSALS.

Treasury Department, Office of the Supervising Architect, Washington, D. C., November 5, 1907.—Sealed proposals will be received at this office until 3 o'clock P.M. on the 26th day of November, 1907, and then opened, for the elevator equipment for the U. S. Post Office, Court House and Custom House, Providence, Rhode Island, in accordance with drawings and specification, copies of which may be had at the discretion of the Supervising Architect, on application at this office, or at that of the Architects, Messrs Clarke &

Howe, 72 Weybosset Street, Providence, R. I. Application must be accompanied by a certified check for \$50, drawn to the order of the Treasurer of the United States, the proceeds of which will be held at this office until the return of the drawings and specifications.—James Knox Taylor, Supervising Architect. (1663-1664)

Treasury Department, Office of the Supervising Architect, Washington, D. C., November 11, 1907.—Sealed proposals will be received at this office until 3 o'clock P.M. on the 2nd day of January, 1908, and then opened, for the construction of an extension to and the remodeling, etc., of the U. S. Post Office at South Bend, Ind., in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Custodian at South Bend, Ind., at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1664-1665)

Treasury Department, Office of the Supervising Architect, Washington, D. C., November 8, 1907.—Sealed proposals will be received at this office until 3 o'clock P.M. on the 19th day of December, 1907, and then opened, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. Post Office and Court House at Ocala, Florida, in accordance with drawings and specification, copies of which may be had at this office or at the office of the Custodian of site at Ocala, Florida, at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1664-1665)

Treasury Department, Office of the Supervising Architect, Washington, D. C., November 7, 1907.—Sealed proposals will be received at this office until 3 o'clock P.M. on the 30th day of December, 1907, and then opened, for the construction of an extension, etc. (including plumbing, gas piping, heating apparatus, electric conduits and wiring), to the U. S. Post Office at Lancaster, Pennsylvania, in accordance with drawings and specifications, copies of which may be had at this office or at the office of the Custodian at Lancaster, Pennsylvania, at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1664-1665)

COMPETITION

Competitive plans and specifications will be received at the office of George F. Horton, County Engineer, Houston, Texas, up to noon, November 5, 1907, for \$500,000 fireproof Court-house for Harris County, Texas. First prize, acceptance of plans; second prize, \$1,000; third prize, \$500.

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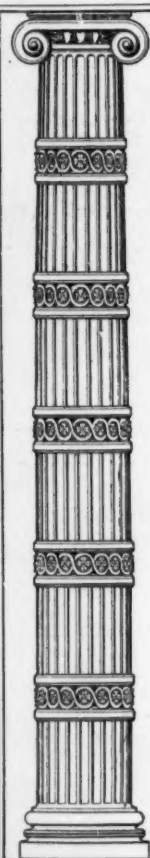


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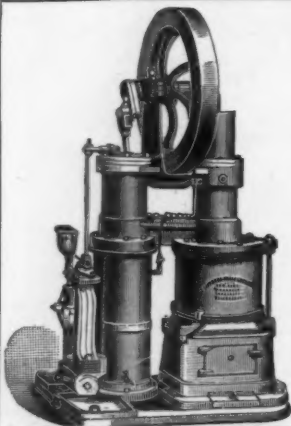
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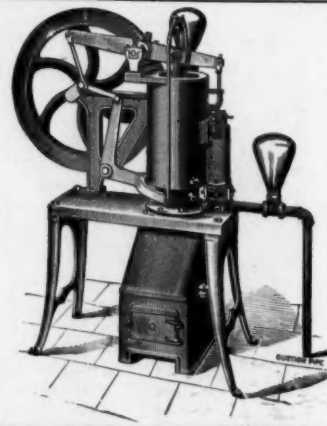
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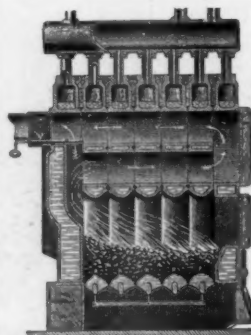
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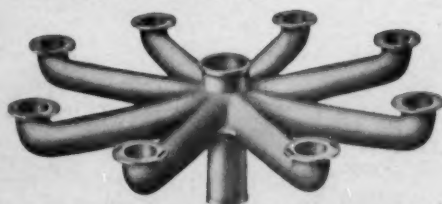
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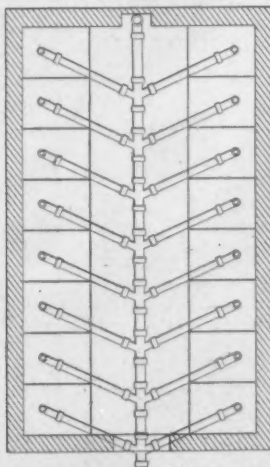
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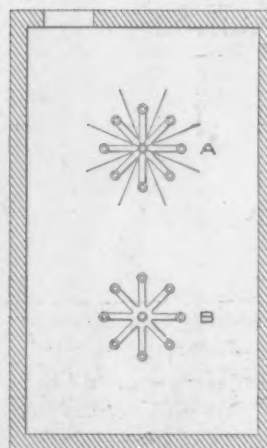
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