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SOUTH CHURCH, NEW YORK CITY

CHANCELS, THEIR ARRANGEMENT AND FURNITURE

WITH ILLUSTRATIONS FROM THE CHURCHES OF THE NEW YORK OFFICE OF CRAM, GOODHUE & FERGUSON*

BY ROGER SPELMAN

BEING PART I OF A SERIES OF THREE ARTICLES

IS it that we are at the beginning of a great Art revival as well as a religious one?—that we are really beginning to appreciate the fitness of things, and to want all things done decently and in order? and does this explain that careful attention to detail which the church demands today? For this demand is a popular one, coming from both laity and clergy,—not

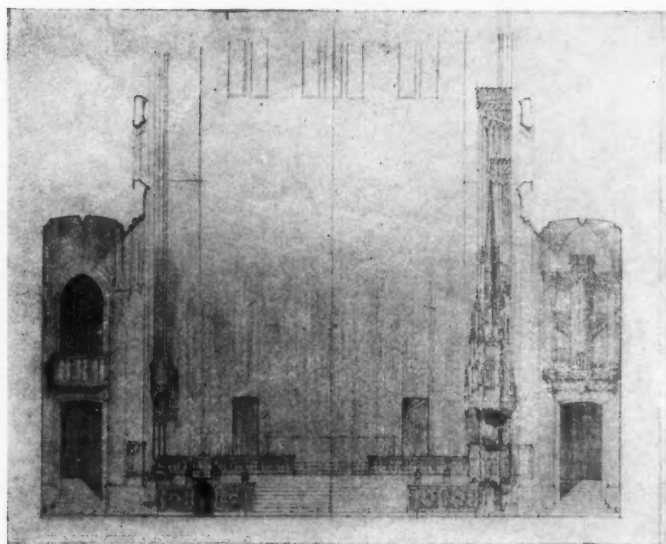
one for which the profession is responsible. It is noticeable both in the church building and in its furnishings; but nowhere is the awakening reflected more strongly than in the chancel. The day is past when a small cramped niche at the end of the church will serve.

While perhaps only churches using liturgies can, properly speaking, be said to

*These articles are of special interest just now as the firm of Cram, Goodhue & Ferguson has dissolved partnership. There is always a question as to how much each partner of a firm is responsible for a given piece of work. The profession can readily distinguish Mr. Goodhue's work from that

of Mr. Cram. For the last ten years practically all of the work done in the New York office has been entirely Mr. Goodhue's; while that designed in Boston has been Mr. Cram's. For the work illustrated in these articles Mr. Goodhue is alone responsible.

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SECTION THROUGH NAVE, LOOKING TOWARDS CHANCEL,
ST. THOMAS'S CHURCH, NEW YORK

have chancels, the word has come to mean that portion of any church reserved for the clergy, including the choir. The choir has become so important that the name has, in popular language, largely taken the place of the word chancel, the church being divided merely into nave and choir, even in small churches as well as in large ones. The word "cancelli" means a screen and referred particularly to that "screen in the ancient basilica which separated the *bema*¹, or raised tribunal, from the rest of the building. The use of the name in ecclesiastical buildings is thus natural, for the altar stood in the place occupied by the *bema* in the apse of the basilica. From the screen the term was early transferred to the space "*inter cancellos*." It is only in this sense that the early Church had chancels, for they had no choir, their cancelli being equivalent to our altar rails, —not to our chancel screens.

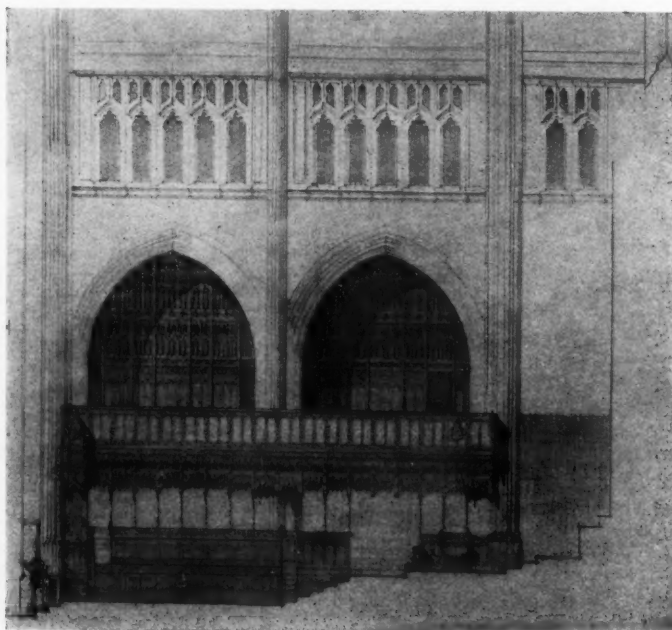
The chancel originally con-

¹So called from the platform from which the Athenian orators addressed the people.

sisted of a semicircular domed apse about the width of the nave. But there grew up in England a tradition of square-ended chancels so firmly fixed, that, with very few exceptions, it has determined the form of the end of all English and American churches.

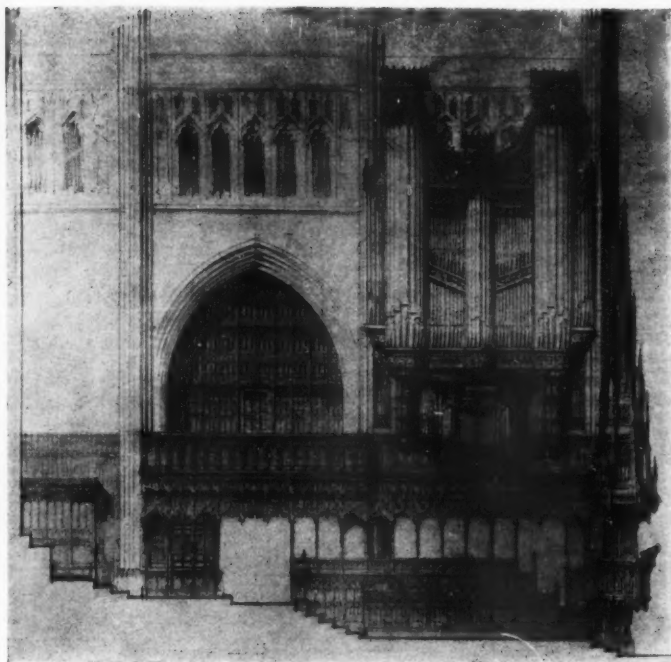
The chancel in the basilicas was merely a sanctuary, the clergy occupying the raised seats of the *bema*. The elaboration of the ritual soon forced the deepening of this apse and the development of the choir. Originally where there was a choir this was merely placed in the nave, also screened off, though separate from the chancel. The choir accommodated not merely the singers but also

the clergy (when not officiating at the altar) and members of the minor orders. Here too was sung the additional daily service or "choir offices." Practically all the great churches of the early Middle Ages were monastic and in



ELEVATION OF CHANCEL, LOOKING SOUTH, ST. THOMAS'S CHURCH,
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ELEVATION OF CHANCEL, LOOKING NORTH, ST. THOMAS'S CHURCH,
NEW YORK

these the choir was really the private chapel of the monks, totally shut in, decorated and made as convenient and comfortable as the time suggested. The development of the choir offices and ensuing requirements brought about the planning of the long choirs peculiar to England.

Though foreign to our use today, it is interesting to note some of the variants from the English arrangement. Many German churches had two distinct and fully equipped chancels, one at either end. The Cathedral of Albi in France also has this arrangement. In Spain the development was to the West as in England it had been to the East. This produced the choir with grilles connected with the altar by a passage enclosed with breast high railings. Though this gave a curious appearance, and in many ways disfigured the church, it adds to the mystery and possibly to the solemnity of the service. It is, however, to the long English choirs that we today look for guidance and inspiration.

The Reformation almost abolished the use of the chancel, as a chancel, and turned the choir into a small church. It is from this revolution, as well as from the Puritan

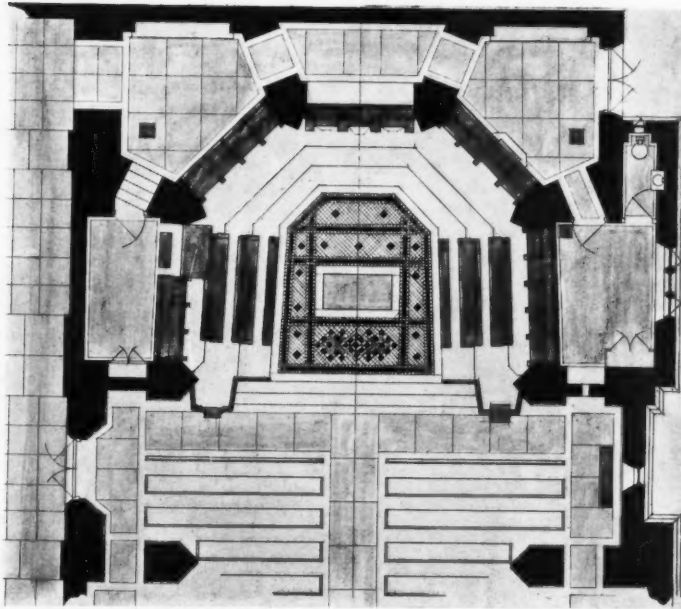
period that we must trace the meagre and cramped chancels that disfigure practically all of our early churches. But the beauty and utility of the old order is again being appreciated, and the newer churches have chancels, which, in size, rank well with the early examples, though they still only approach their splendid furnishings.

It is, of course, impossible to lay down any rule as to the proper relative size of nave and chancel, as this can only be decided by the needs of the individual cases. Very roughly speaking, the chancel should be from one-third to two-fifths the length of the nave, never being less than two bays. The services held in a cathedral necessitate a great chancel and we find the chancel of Baltimore six

bays deep while the nave is only seven bays and the crossing. Because of the restricted site St. Thomas's is unfortunately short being only two and one-half bays. That of the Chapel of the Intercession is more adequate, being four bays, while the nave is seven. For a very small church Mt. Kisco chancel is admirably proportioned, being three bays to the nave four;—or thirty-seven feet to the nave of fifty-eight feet. (*See page 71*).

From the earliest times it has been customary to mark the transition from the nave to the chancel by a change of level. Whether this is following the precedent of the raised basilican apse, to enable the clergy to be heard, or to give a better view to the congregation, there can be no question of its desirability. The difference should not be great, however, a change from five to fifteen inches being ample for almost all cases, for "the church is not a theatre, and it is not necessary or even advisable that the action in the chancel should be displayed with great prominence."

The change was also marked by a parapet or screen. The rood screen has, by some authorities, been thought to have come



CHANCEL OF SOUTH CHURCH (DUTCH REFORMED), 85TH STREET AND PARK AVENUE, NEW YORK

down directly from the low cancelli which divided the apse of the tribunal from the basilica. The screen varied from an open colonnade to a stone wall with a solid door in the middle, which was closed during part of the ceremony.

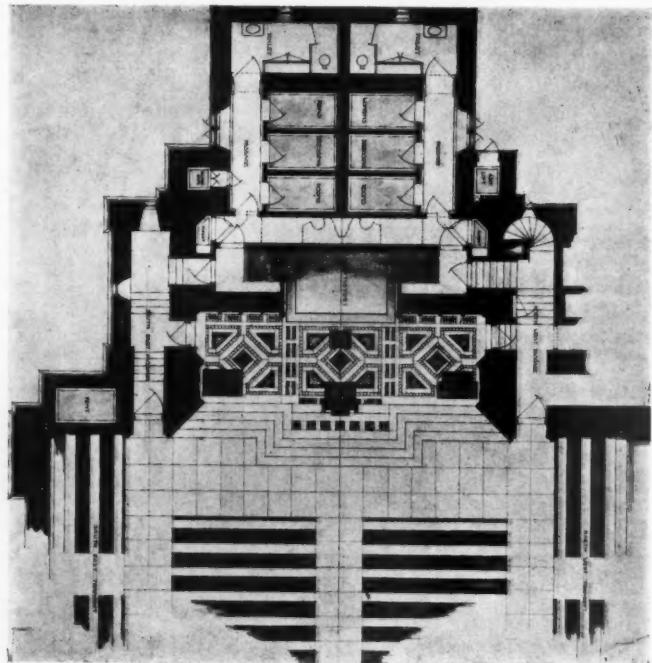
There has always been felt a necessity for shutting off the sanctuary,—of housing about the "Holy Mysteries"; and to this feeling can be traced not only the screen, but also the narrow chancel arch of the early Saxon Church, sometimes only six feet wide while the chancel itself was more than twice that width. As time passed, these arches were continually widened until they finally became the width of the chancel; and then disappeared altogether. This is the tendency of the churches today, especially where there are large choirs. The "triumphal" arch is only faintly marked at St. Thomas's Church; and is altogether lacking at the Chapel of the Intercession. Where the church is of necessity

short, this throwing of chancel and nave together undoubtedly adds to the apparent length of the building; but it makes an added demand for something to mark the division; and this is satisfied by splendid and richly wrought screens, of wood or stone, or by a large rood suspended or a beam, as at Grace Church, Chicago.

The step from the nave to the chancel should be at the screen gates; and, if there are more than one step, it is best that they should project into the nave rather than be recessed into the choir. These should be wide and low, say five inches high, never more than six inches. It is well to leave a space of at least the width of the centre aisle between the chancel steps

and the nave seats to accommodate the "stations" at the Sunday procession.

A sense of space, of openness, is most



FIRST BAPTIST CHURCH, PITTSBURGH, PA.

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desirable in the choir, and should be insisted upon even if the large number of choristers, so eagerly sought after today, has to be reduced. (It is almost certainly best not to have a surpliced choir in small churches.) The passageway between the stall ends should not be less than twenty-four inches, and where this is in front of the "returned" stalls it must be wider. The distance between the book-rests should be as wide as possible, a rough guide being to determine this by using the length of the altar as a minimum. In large churches it is desirable to have a cantor's or choir lectern place here as in Baltimore Cathedral. The stalls themselves should be placed on a wooden platform raised slightly above the choir floor. The floor under the stalls should be of boards, not blocks, in order to give resonance. The first and second rank need not be elevated, but the third, or last row, should be raised two or three steps; so as to give free play to the men's voices, and likewise add to the architectural composition of the choir.

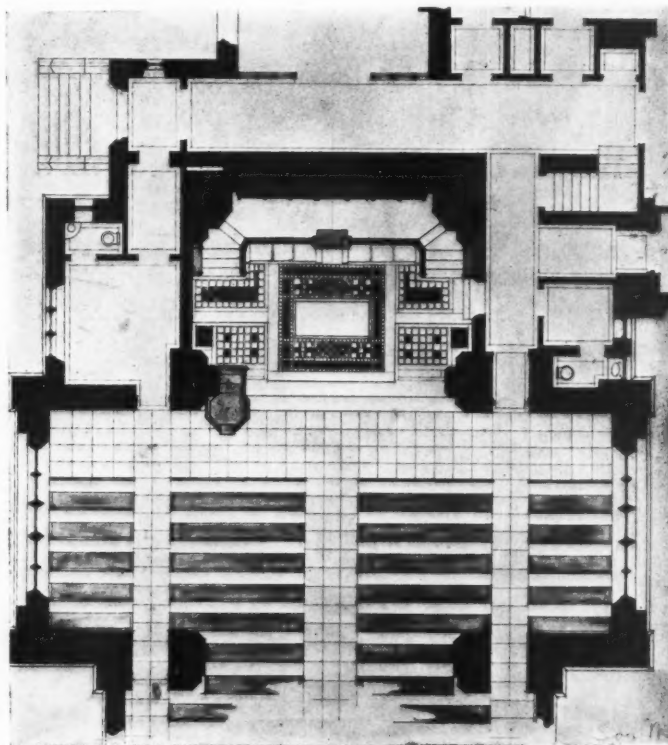
Though unusual in this country the "returned" stalls, shown for example on the plan of Baltimore Cathedral, have many advantages. The priest saying the office and the congregation face in the same direction, and when he addresses them from his stall he has merely to turn round. This arrangement gives more efficient control of the choir boys and also helps to mark the difference between clergy and the singers.

In order to afford room not only for the communicants, but also for the convenient passage of the clergy to and from the sacristies, a minimum width of four feet should be left between the sanctuary step and the end of the choir stalls. If possible this should be much increased.

Although the position of the pulpit is not a fixed point it is customary in parish churches to place it at the Gospel, or north

side of the church. Practically all the illustrations, however, show it on the south side. For if the pulpit is placed close to the wall or pillar, this gives much more freedom of gesture to the preacher. In any case it is best to have it stand out a little from the wall, rather than be placed against or part way under the arch.

Side or parclose screens separating the chancel from adjoining chapels or ambu-



TYPICAL PRESBYTERIAN CHANCEL, SAGE MEMORIAL CHURCH.
FAR ROCKAWAY, N. Y.

latories are almost a necessity and form a canopy for the stalls. These are shown in the sketch for the St. Thomas's chancel fittings, and in the chancel of the South Church.

The dimensions of the stalls, book rests, etc., of the chancel will be considered later when the individual pieces of chancel furniture are discussed in detail.

The sanctuary is the Christian "Holy of Holies" for which all that has gone before was a preparation, and toward whose altar all in the church converges. Here is con-



CATHEDRAL OF THE INCARNATION, BALTIMORE, MD.

centrated the most splendid decoration that the church can afford in order to mark its sacred character. It is also marked by a further elevation of at least one step. Large churches may have two or more, though these should not come together, for to kneel at the top of a flight of steps is most trying to the communicant. Note the arrangement on the Chapel of the Intercession plan (*page 73*) where there is a space of 5 feet, 5 inches between the kneeling

step and those from the choir. Too many steps, however, instead of enhancing the dignity of the sanctuary only dwarf its proportions: and in small churches they reduce the size of the floor.

The sanctuary is further separated from the choir by an altar rail; or, better still, a communicant's kneeler. This rail should be set back from the edge of the step at least fourteen inches in order that the communicants may have a sufficient space to kneel. They should kneel on the same level as that on which the ministering priest stands. In large churches, as at the Chapel of the Intercession, doors should be provided at each end of the communicants' space to allow for the return through the chancel aisles of those who have communicated, instead of crowding those about to do so.

The revival of the ritual which accompanies the eucharistic office necessitates ample space about the altar and a careful placing of the sedilia, piscina and credence. In the churches of the Middle Ages, the sedilia, or seats for the officiating ministers, was commonly built into and formed a part of either the wall, or screen, on the epistle or south side of the sanctuary. The credence and piscina were frequently joined to its eastern end, as at the Chapel of the Intercession.

The credence may be a separate niche, or may take the form of a table to be placed on the epistle side of the sanctuary as at Mt. Kisco. In parish churches the throne for the Bishop should be portable, as it is to be erected only when he is to be present and removed after his departure. It is a modern American custom, in Episcopal churches, to supply a fixed chair for the bishop on the gospel side of the sanctuary opposite the sedilia. Stools or benches are

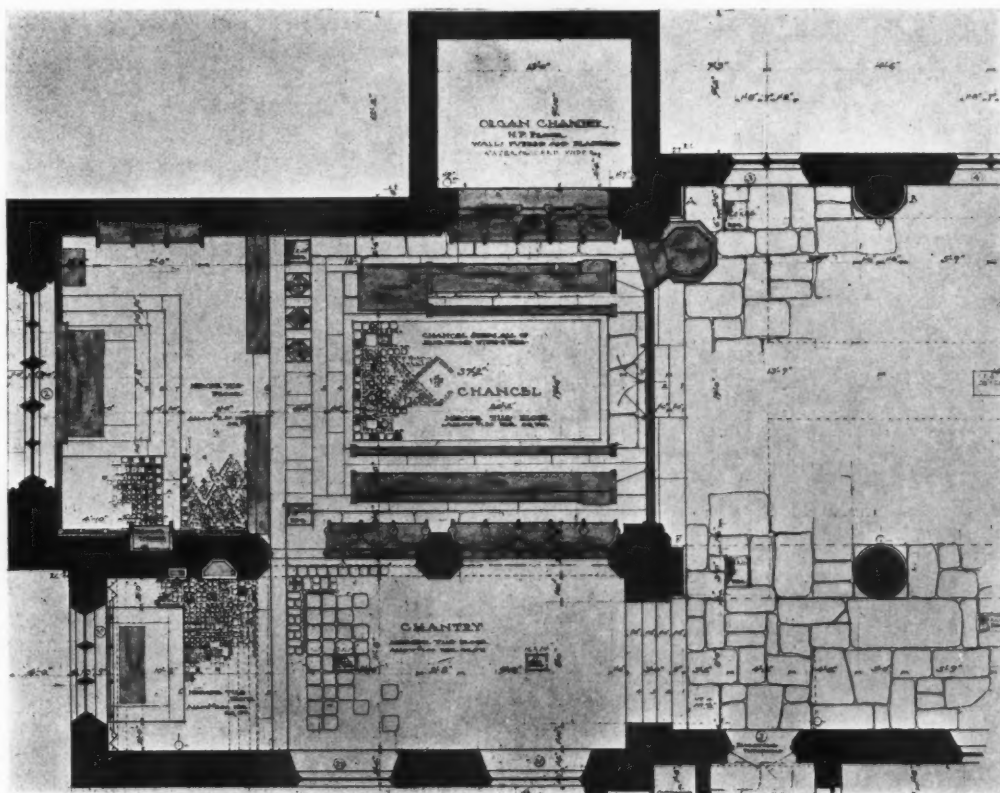
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likewise required for the extra copemen who assist at matins or vespers on great feasts.

It is hardly wise to take up the discussion of the vexed question as to whether the altar should be elevated two or three steps. Quoting Sir Roger de Coverly "There is much to be said on both sides." For many reasons it is better to place the altar eighteen inches from the east wall. The foot space on which the altar rests should

they need not be as wide on the sides as in front. Carrying the last step across to receive the bishop's chair is not uncommon. This arrangement is used at Mt. Kisco. There should be at least six feet between the last or subdeacon's step and the communicants' rail or kneeler.

The minimum depth of the sanctuary for even a very small church would be ten feet from the communicants' rail to the east wall. Of this six feet would be



CHANCEL OF A SMALL PARISH CHURCH, ST. MARK'S, MT. KISCO, N. Y.

extend from sixteen inches to two feet on each side wherever this is possible, while in front it should be from three to four feet wide (though two feet may be used as an absolute minimum and thirty inches is a very convenient width). The other two steps should be from twenty to twenty-five inches wide in order to give convenient standing room for the assistants. These steps may extend directly across the sanctuary, though it is perhaps better practice to return them at the ends, in which case

taken up by the altar and foot pace—supposing there be no other altar steps—four feet between foot pace and communicants' kneeler, which may, or may not, be elevated one step above the nave floor. If a communicants' rail be used it should be elevated one step, leaving at least a clear foot between it and the edge of the step. A generous opening should be left between the two rails or kneelers. This may have a cord or gate to close it.

The minimum width for the chancel

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is roughly seventeen feet. The principal altar in a church should not be less than seven feet long with an extension of the foot pace one foot on each side, with at least four feet between it and the side walls of the chancel. These dimensions naturally do not include a choir.

* * * *

Referring specifically to the illustrations: Baltimore Cathedral is still in a tentative state, but the plan shows an ideal cathedral chancel planned for all the elaborate ritual that such a church calls for. The organ in this case will be placed on one side only, even higher up than at St. Thomas's.

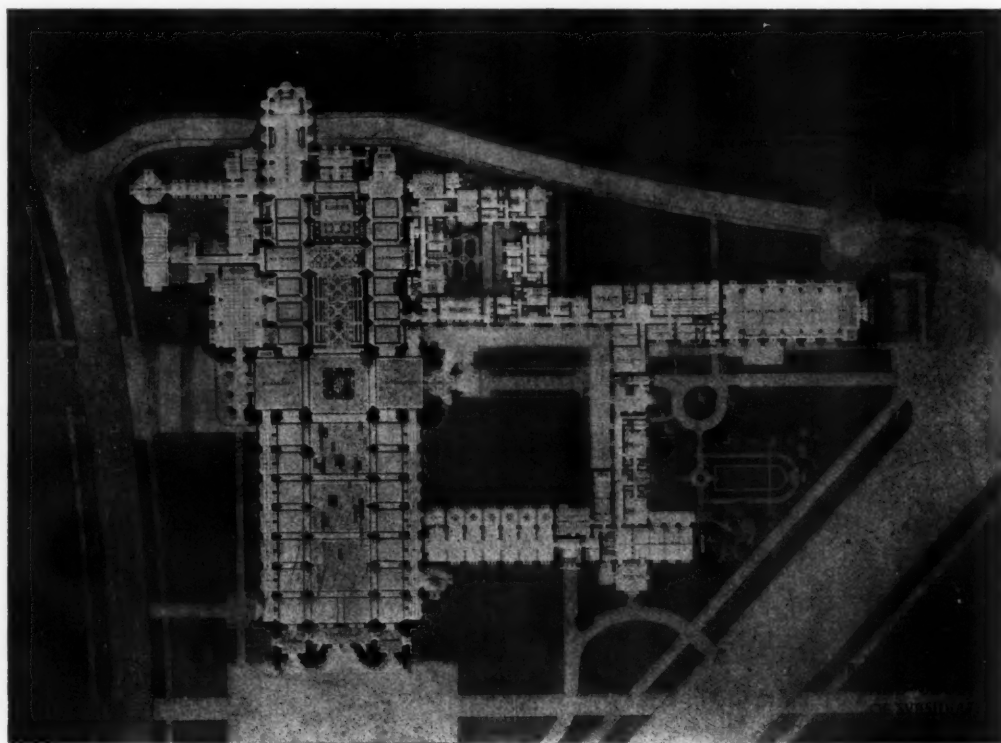
In its splendid furnishings St. Thomas's chancel will more nearly approach a great European church than any other in America; for much thought and money have been lavished on this building.

The pulpit with its great pinnacle suggests that of Strasbourg which rises "higher than the Church." The stalls are richly canopied,—while above them the

great organ case towers up into the vault. Dominating all, the reredos rises straight from floor to roof, a mass of splendid color and delicate carving. Through the tracery of the upper part the reflected light glows from richly colored windows.

So far only the organ cases are built, and the great organ now seems out of proportion. When, however, the reredos is in place, this will recede into its proper relation. Such a case, repeated on both sides of the chancel, would exclude, or at least oppress, everything else in the chancel; used singly, it is very effective—in fact dramatic. But the organ had to be divided to find accommodation for its great bulk, and it occupies the galleries on each side of the chancel. To keep the composition simple, as well as to emphasize the effect of the great case, all the other chancel openings are filled with screens, rich in texture though very quiet in effect.

The galleries, formed over the stall canopies, are sufficiently ample for either a choir or orchestra of stringed instruments, such as is so frequently used on the Con-



GROUND PLAN, CATHEDRAL OF THE INCARNATION, BALTIMORE, MD.

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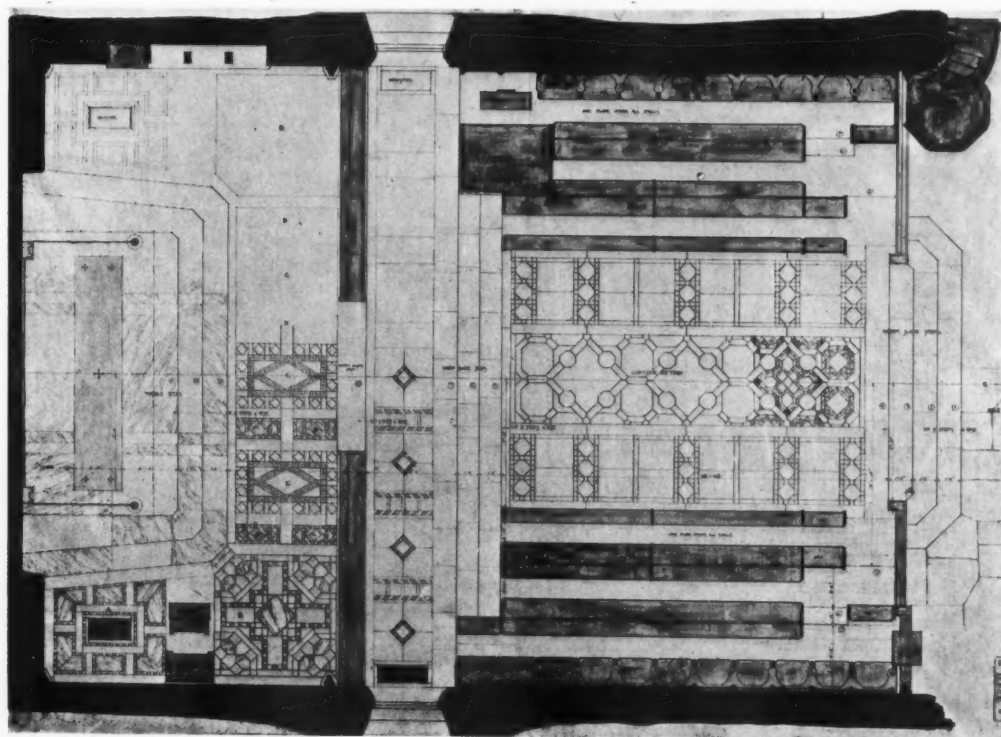
tinent. These gallery fronts tend to narrow the chancel and to emphasize its length by giving a much needed strong horizontal line.

Because of the great height of the church—it is ninety feet from floor to vault—more steps have been used in this chancel than any other of this architect's churches; and the results amply justify their use.

The chancel of the Chapel of the Intercession is one of the most ample and best

gallery," a feature designed for the use of women singers when it is desired to have them supplement the regular choir.

The altar is most interesting. A spreading vine of bronze, holding in its branches relics which the vicar has collected from the most sacred shrines of the church, forms the front. There are no gradines—the ornaments standing directly on the mensa. The whole is crowned by a dossal of a specially made fabric set in a Gothic



CHANCEL ARRANGEMENT, CHAPEL OF THE INTERCESSION, NEW YORK

arranged to be found in any American parish church. And there are many unique features.

The lectern is supported by a slight projection of the cap stone on the Gospel side of the stone parapet between nave and choir. This is of the double type, of wrought iron, with sconces for tapers. The wall stalls on either side are canopied and have hinged seats with moulded misericordes beneath, after the fashion of the Middle Ages. Above the stalls on the Gospel side rises the splendid organ cases filling two bays; while opposite is the "nuns'

frame, richly gilded, from the top of which projects the tester covering both priest and altar. The sides of the altar are enclosed by riddels harmonizing with the dossal and attached to riddel posts surmounted by gilded angels bearing tapers. The remaining portions of the east wall are hung with a contrasting fabric. Above all, and recessed back from the dossal, rises the great east window reflecting its soft lights on the richly decorated roof.

Aside from its quiet dignity, St. Johns, West Hartford, is interesting for its "Nuns' Gallery" over the stalls opening into the

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chancel from the Ladies' Room upstairs. It forms an echo note to the organ opposite and shows how much Mr. Goodhue departs from a dry formalism and still preserves an atmosphere of reverence.

Grace Church Chapel, Chicago; St. Andrew's Chapel, Chicago; and Trinity Chapel, Buffalo, are quite notable examples of what can be done in a very small space.

Grace Church Chapel is only about twelve feet wide, inside the nave piers, by forty feet long (the chancel is fourteen feet deep), yet the effect is quite splendid, with no note of triviality.

St. Andrew's Chapel is eighteen feet wide by thirty-two feet long, the chancel being eight feet deep. It is wonderfully quiet; and, in spite of the splendor of its reredos, with its gleaming gold and color, seems to have already acquired something of the atmosphere of the Old World shrines, where the air is laden with the prayers of many generations.

It is difficult to imagine a more inartistic architectural composition than that presented by most of our sectarian churches. A church has the strongest possible sense of direction, the congregation all facing front, the aisles, the lines of walls and roof—all leading frequently to what,—a little desk, a narrow platform and a blank wall. Even where there is no ritual something more than a mere pulpit is needed: not only to give dignity and to emphasize the spiritual leadership of the minister—but especially is this something needed for a strong architectural termination. The successful solving of this problem may mean the difference between the atmosphere of a church and that of a lecture hall.

Where there is no objection to frankly treating the communion table as an altar, the problem can be solved rather satisfactorily as at South Church, though here the traditional French form of the end helps to give a "churchly" impression. This is

a choir rather than a chancel, with stalls, pulpit and lectern.

In the First Baptist Church of Pittsburgh (*see page 68*), Mr. Goodhue has reached a particularly happy solution of a particularly difficult problem. From the front book-rests to the back of the baptistry is 30 feet, 3 inches, a fully adequate depth for a chancel of a church of this size. While it will probably not be claimed that the sacrament of baptism is more important than that of communion, the Baptist congregation feels that baptism is a feature of their service that should be given all due prominence. In this case the communion table occupies its usual place in the centre of the chancel, though placed well forward,¹ while at the back is the baptistry; which, when not in use, is screened by hangings. Just in front of this are placed the chairs for the pastor and visiting clergy, while on each side are stalls for the elders. The pulpit, and a secondary organ console, an unfortunate necessity, are placed each side of the chancel.

To obviate anything that might detract from the solemnity of the service, the baptistry is so arranged that those about to be baptized cannot be seen by the congregation either when entering or leaving the water.² The screen which accomplishes this takes the elder's stalls and also supports the choir gallery. Above this rises the splendid organ; its case, as well as the whole front of the choir gallery, being a mass of subdued gold and color. The seven lamps suspended in front of the organ case add to the effect. Except where a great reredos has been possible, the result is probably a church interior as dignified and impressive as it is possible to conceive.

¹The plan is correct, the photograph showing a temporary arrangement.

²Note the standing room just back of the screen for the elder who helps those who have just been baptized out of the pool.

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A FALSE CONCEPTION OF MONOPOLY

THE active antagonism of the Federal government toward "monopolies," with the resultant general discussion of the subject, finds an amusing sequence in the recent failure of the South Carolina Senate to enact a bill defining proper qualifications for the practice of architecture in the state, on the grounds that a monopoly would result. If the South Carolina legislators have always been influenced by such irrefutable logic and inspired with such altruistic feelings toward the citizens, we presume that the profession of medicine is not permitted to be monopolized in that state by persons who have given legal evidence of their ability, but is open to the free competition that existed in those primitive days when the patent medicine vendor prescribed for every physical ill, and the village blacksmith extended his vocation into the realms of dentistry.

The bill intended to provide, we understand, that any person practicing architecture in the state must be so skilled in design and construction that he might be entrusted with such work without undue risk to the public from accident, disease or

fire, and before entering upon his duties must have a certificate of proficiency from a state board of examiners.

When building construction and superintendence were much less complex than they are today, when the possibilities of loss to the owner were minimized by the smaller expenditures then generally involved, and simpler relations prevailed between labor and capital, when the responsibility of the owner to the public was not crystallized into law, there was far less reason for regulating the practice of architecture, but to neglect to do so under present conditions is approaching perilously near to plain neglect of duty.

Apparently the failure of the South Carolina senators to enact the proposed progressive legislation was due to a lack of full knowledge regarding the architect's function. It would seem that a more general understanding of the responsibilities accepted by the architect, and of the qualifications which should therefore be required before admitting him to practice, might be made the object of greater attention by organizations and individual members of the profession, with the prospect of most beneficial results accruing to all.

FACTORY LAW TO CHECK DEPRECIATION OF PROPERTY VALUES

MUNICIPALITIES and property owners who have watched with apprehension the encroachment of factories upon residential and shopping districts may find a suggestion toward the solution of their problems in the "occupancy clause" of the New York factory law which went into effect on February 1st. This ordinance, limiting the number of workers in each factory according to its facilities of exit, will, in the reported opinion of Mr. Robert Grier Cooke, President of the Fifth Avenue Association, compel such an extensive reduction in the working force that many owners will find the occupation of their present premises unprofitable and will therefore seek new quarters. A general exodus of factories from the Fifth Avenue district is predicted as a result.

Although the ordinance was presumably intended first of all as a precaution against

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danger from fire and panic, an additional service to the community may be rendered by its probable secondary results. The noonday and evening throngs of garment workers which now congest the broad thoroughfare of the nation's most renowned shopping center have contributed to notable depreciation of adjacent property values. Many prominent business houses have been forced to move up-town where their customers may, as yet, shop in a more congenial environment. As a result, many of the vacated properties have ceased, for the time being, to produce satisfactory revenue and consequently have declined in value.

ROMAN CITY IN ENGLAND UNEARTHED

ARCHITECTS and archæologists are greatly interested in the old Roman city of Uriconium, which is being uncovered in Shropshire soil. The excavation has already yielded results of extraordinary interest, and, it is believed, will greatly add to the knowledge of Britain's occupation by the Romans.

Uriconium was situated at the junction of the principal Roman roads, one from London, in the southeast; another passing from Church Stretton through the legendary borders of Caerleon, in South Wales. There were also other roads leading from it to Chester, Wales.

The most important discoveries yet made in connection with the excavation work are, according to a recent report, as follows:

The circuit of the city measured about three miles, and enclosed an area of 170 acres—that is, about twenty acres larger than Pompeii.

About half the public baths and the basilica, or town hall, of the city have been uncovered, the latter an imposing building, the nave of which is floored with tiles in herringbone fashion, and the aisles with geometrical patterns in mosaic. It is about the same length as the basilica at Pompeii, but slightly narrower.

Part of the cemetery has also been

It is as desirable as it is inevitable that the manufacturing facilities of a prosperous city shall expand, but the manner and direction of growth should be so controlled that it will not be a detriment to any portion of the city. If the whole solution of this problem lies in the enforcement of stringent factory fire laws, well and good, but more uniformly desirable results are likely to be gained by dividing the city into zones somewhat as suggested by the Heights of Buildings Advisory Committee, whereby certain classes of factories would be segregated and shopping and residential districts be free from the present constant menace to property values.

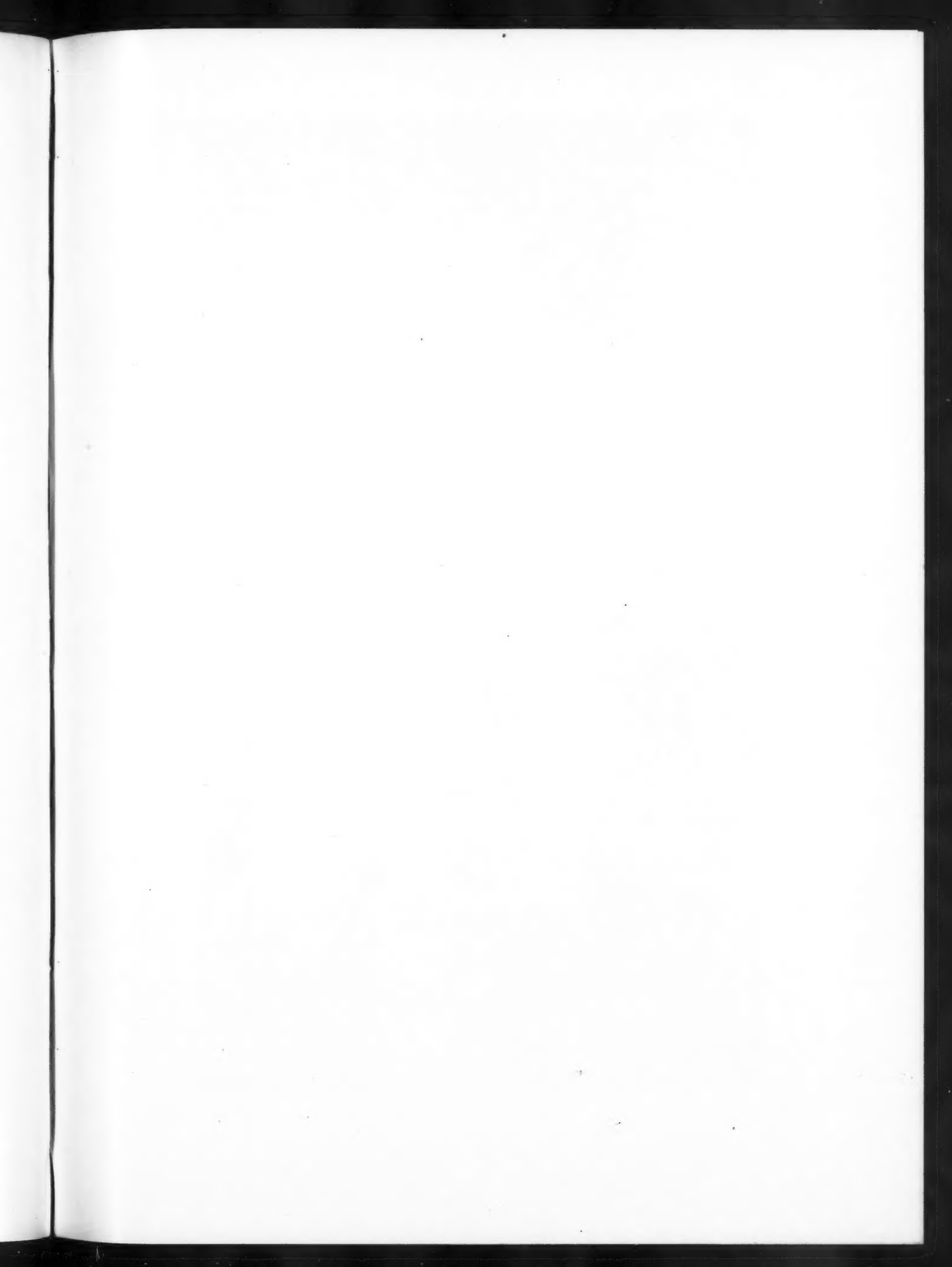
dug out, and some interesting tombstones and other objects found; also four houses, evidently large shops with porticoes on the street and dwelling rooms at the back.

There has also been uncovered a temple measuring about ninety-five by fifty-five feet, the entrance of which was under a portico of six columns.

The excavators are now uncovering a large building with a portico on the street of 115 feet. This building has already been traced back 200 feet. It contained many rooms, some with rough mosaic pavements and others with cement floors. Four rooms had hypocausts, or hot-air heating apparatus. In the courtyard was a large well, built of massive blocks of stone.

A large amount of pottery, much of it Samian ware, was imported into this country from France and Germany. The coins found numbered about 700 and range from the Republican period—that is, before 23 B. C., to the Emperor Theodosius I (338-392 A.D.). There are a large number of coins of the last half of the fourth century.

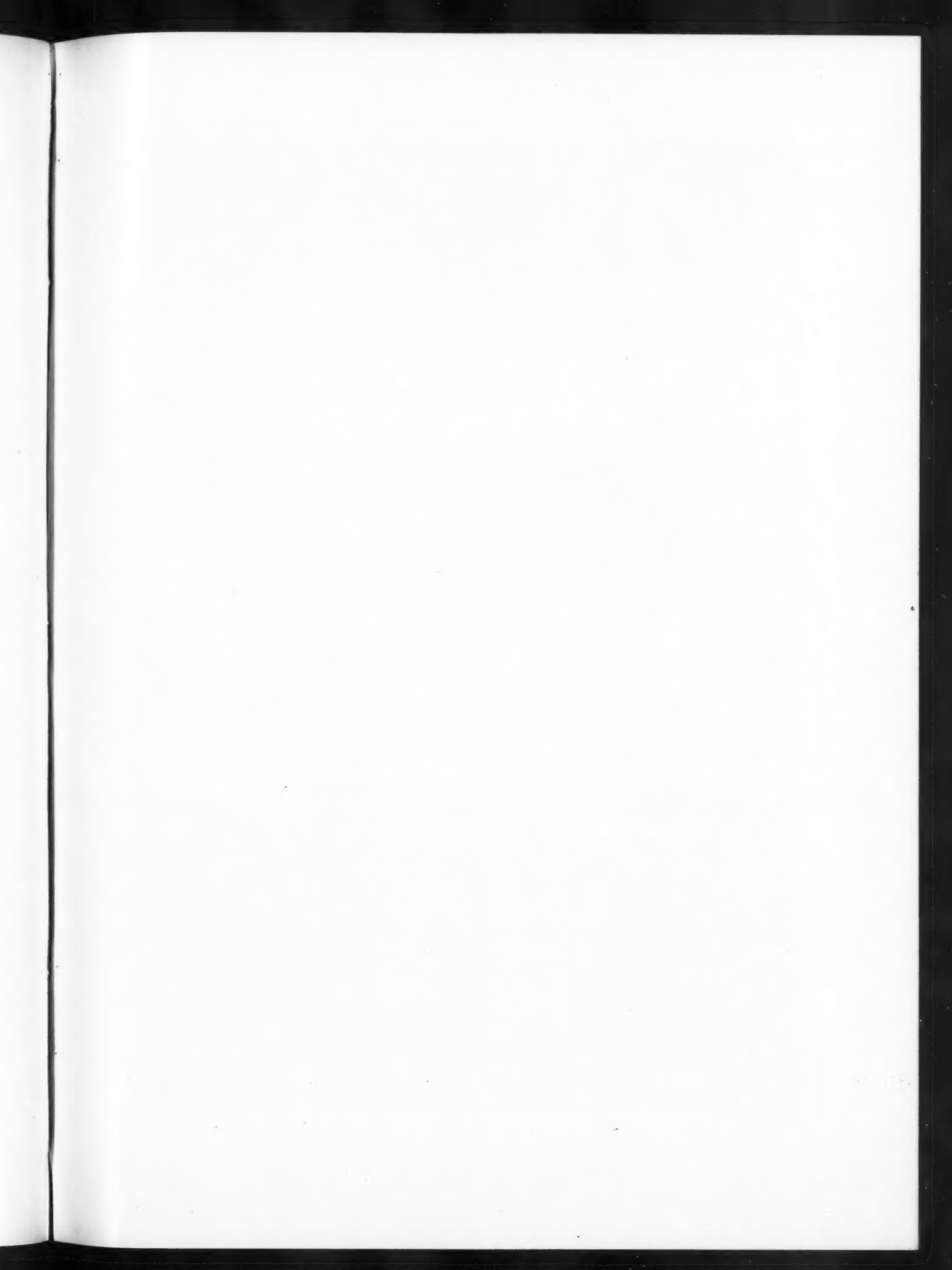
That the site was occupied soon after the Claudian invasion in 43 A. D. is shown by two tombstones of soldiers of the XIV Legion. This legion came over with Claudius and finally left Britain in 70 A. D. The absence of certain symbols on both tombstones point to a date rather before than after the year 50 A. D.





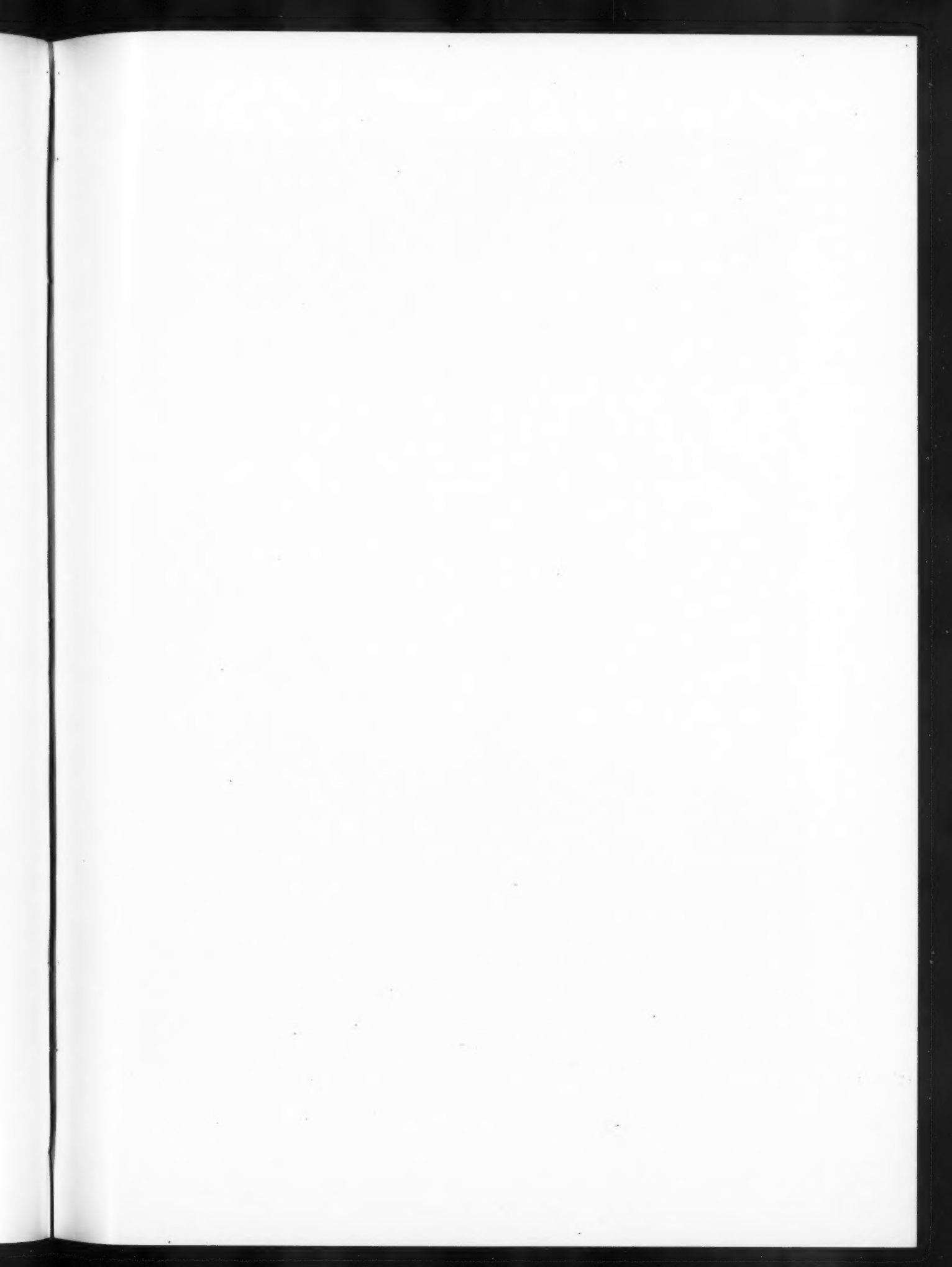
REPRODUCTION OF THE ARCHITECTS' DRAWING, RENDERED IN COLOR,
CHANCEL, ST. THOMAS'S CHURCH, NEW YORK

MESSRS. CRAM, GOODHUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS





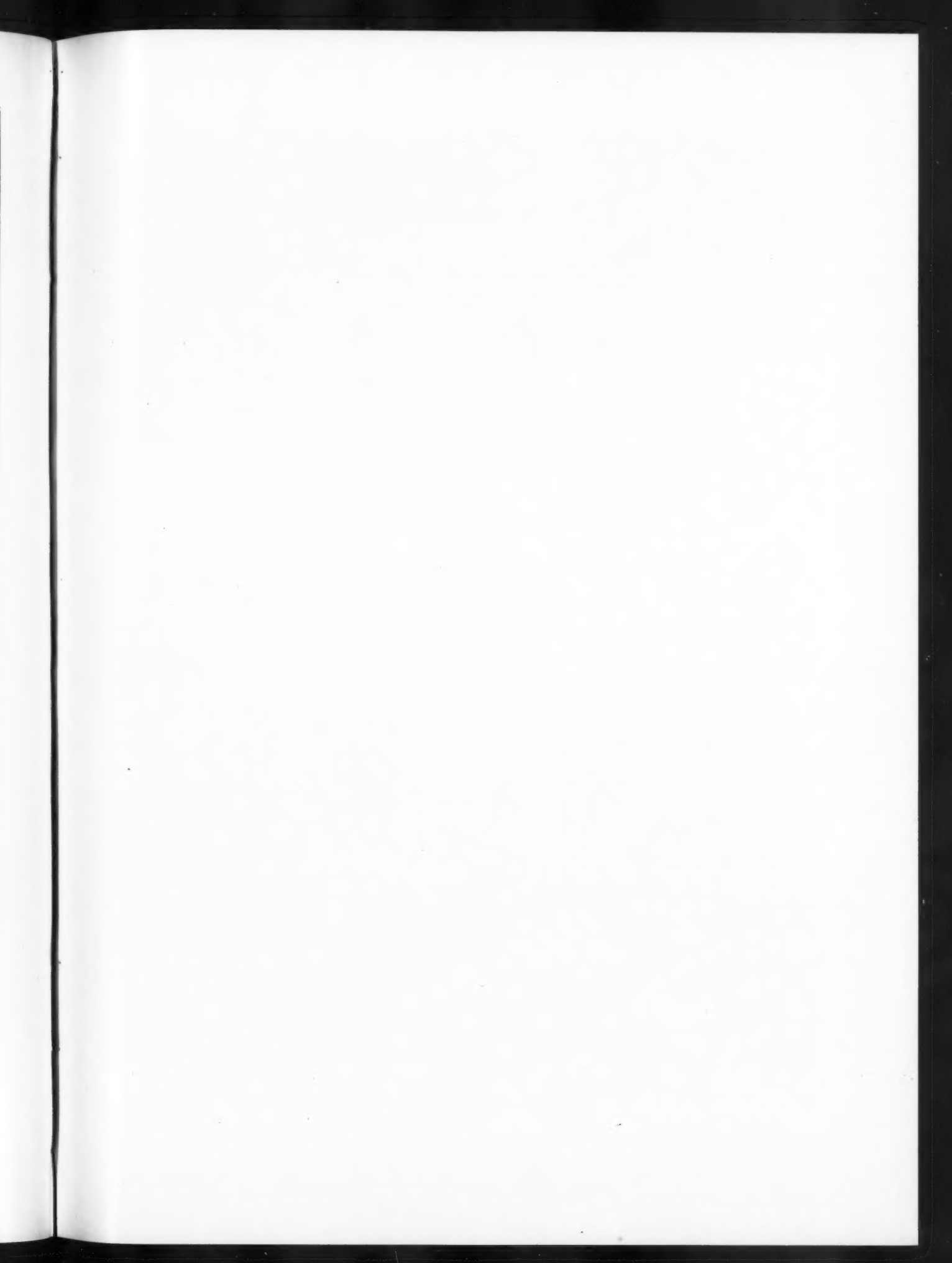
CHANCEL, ST. THOMAS'S CHURCH, NEW YORK
MESSRS. CRAM, GOODHUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS





CHANCEL, CHAPEL OF THE INTERCESSION, (EPISCOPAL) TRINITY PARISH, NEW YORK

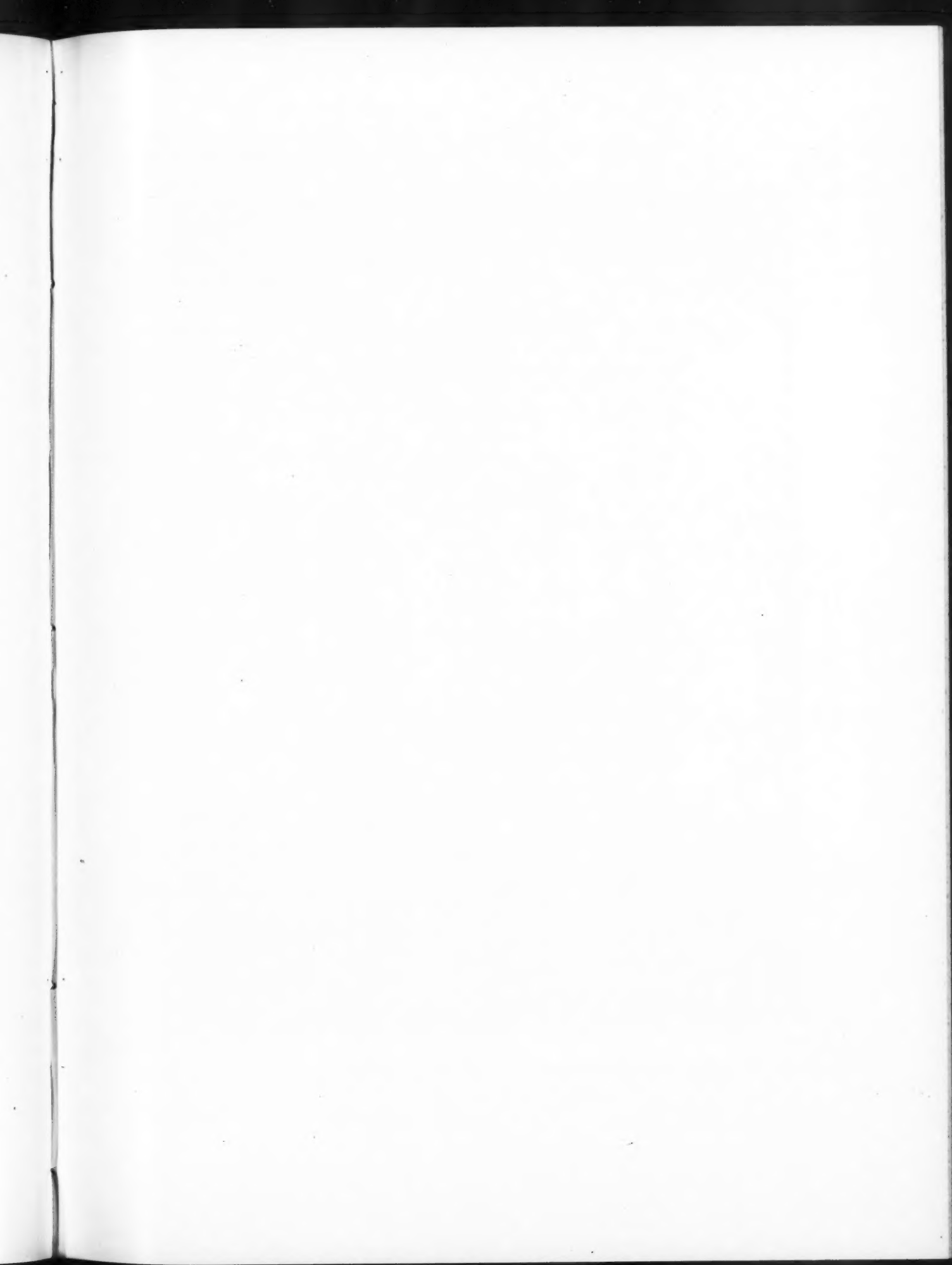
MESSRS. CRAM, GOODHUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS

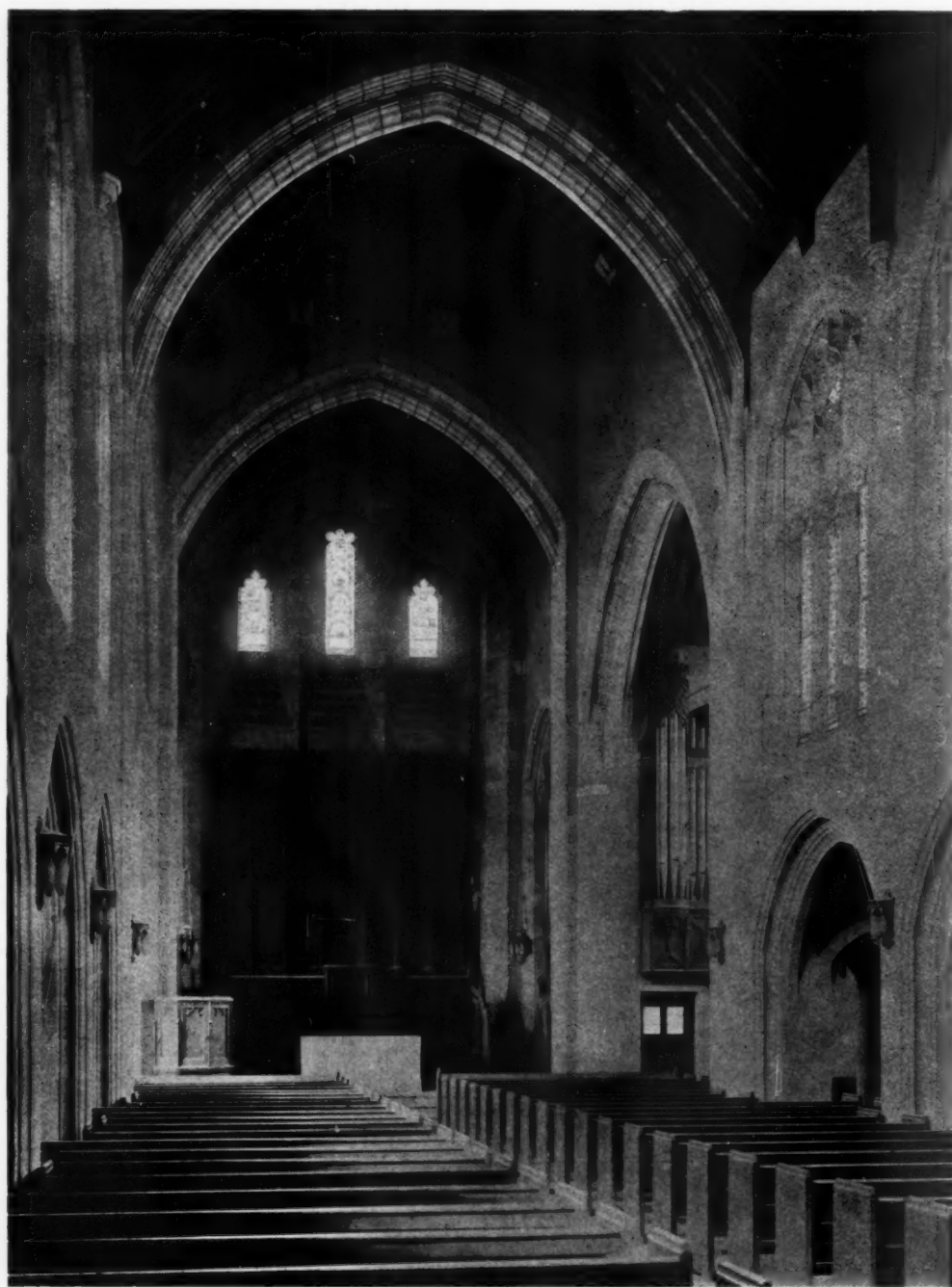




CHANCEL, TRINITY CHAPEL OF TRINITY CHURCH, (EPISCOPAL) BUFFALO, N. Y.

MESSRS. CRAM, GOODHUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS





SAGE MEMORIAL CHURCH, (PRESBYTERIAN) FAR ROCKAWAY, N. Y.

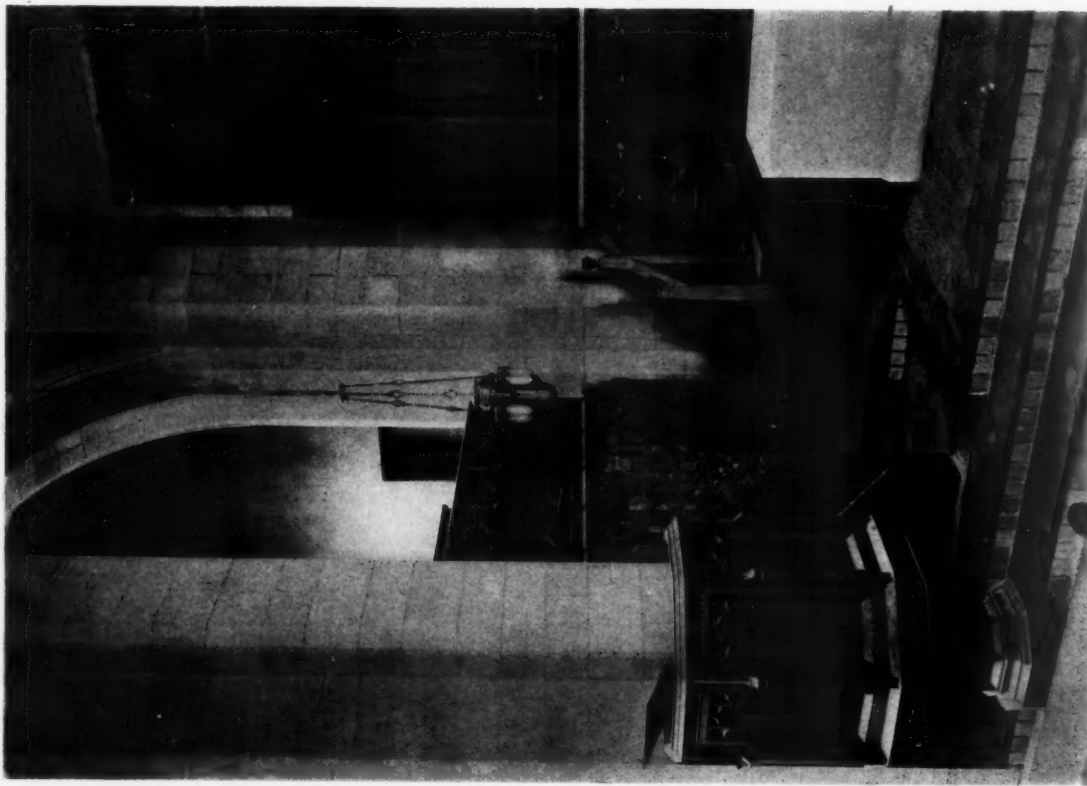
MESSRS. CRAM, GOODHUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS





ST. PAUL'S CHURCH, (EPISCOPAL) DULUTH, MINN.

MESSRS. CRAM, GOODHUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS

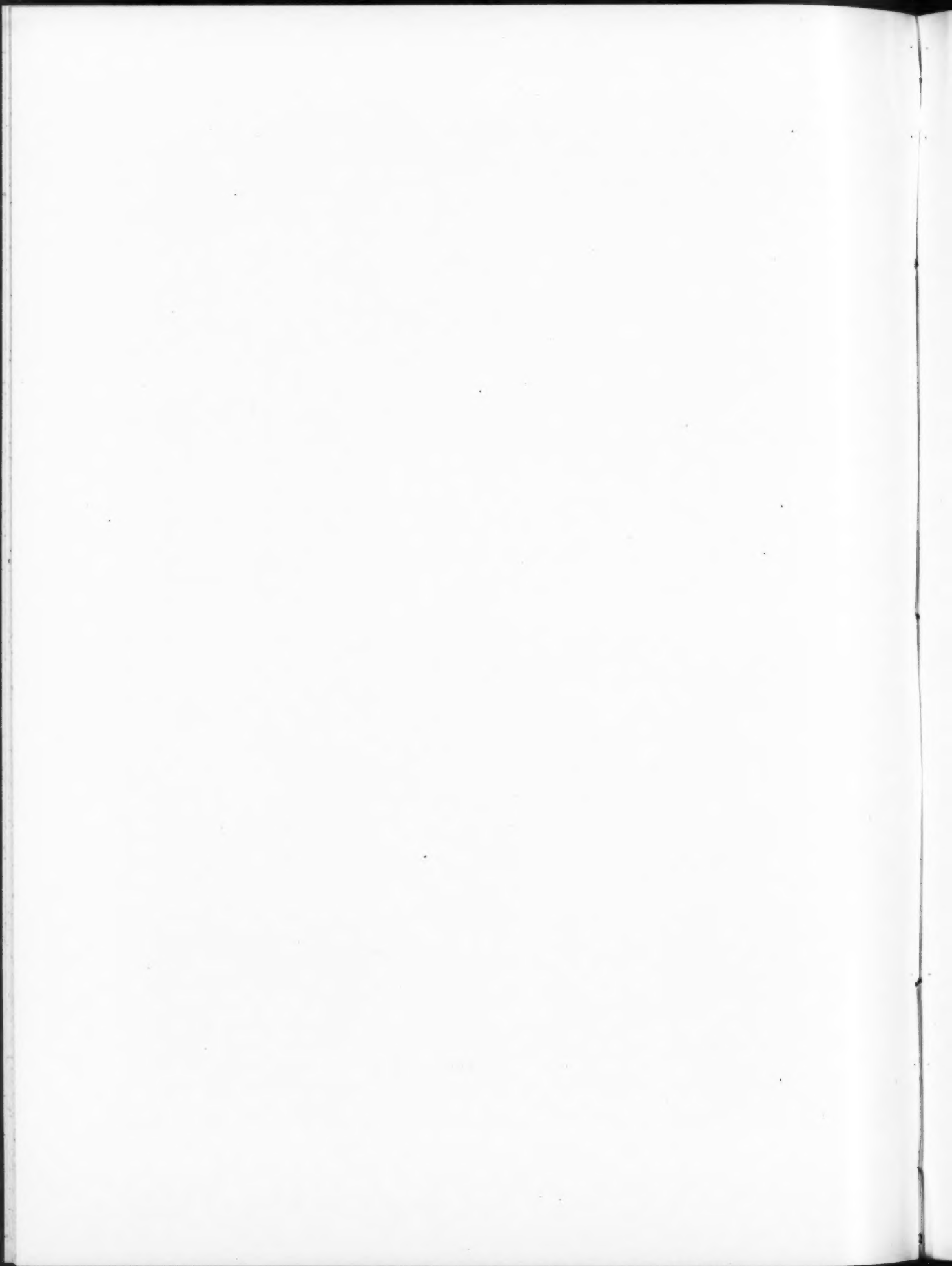


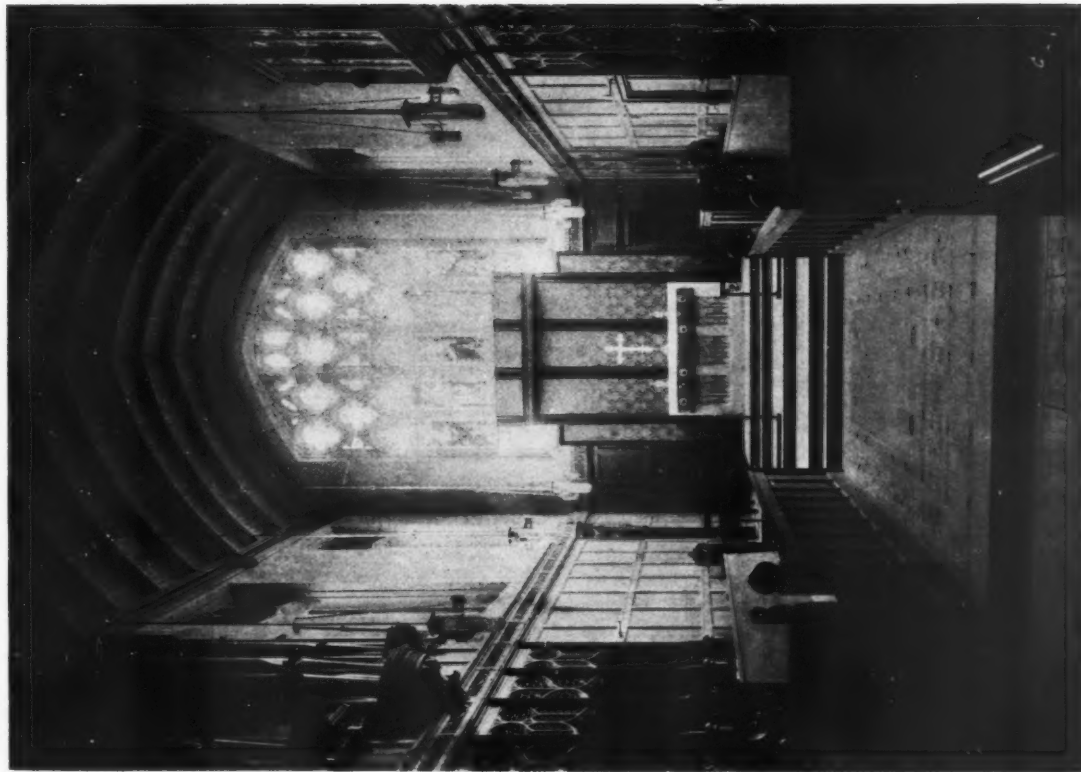
SAGE MEMORIAL CHURCH, (PRESBYTERIAN) FAR ROCKAWAY, N. Y.



FIRST BAPTIST CHURCH, PITTSBURGH, PA.

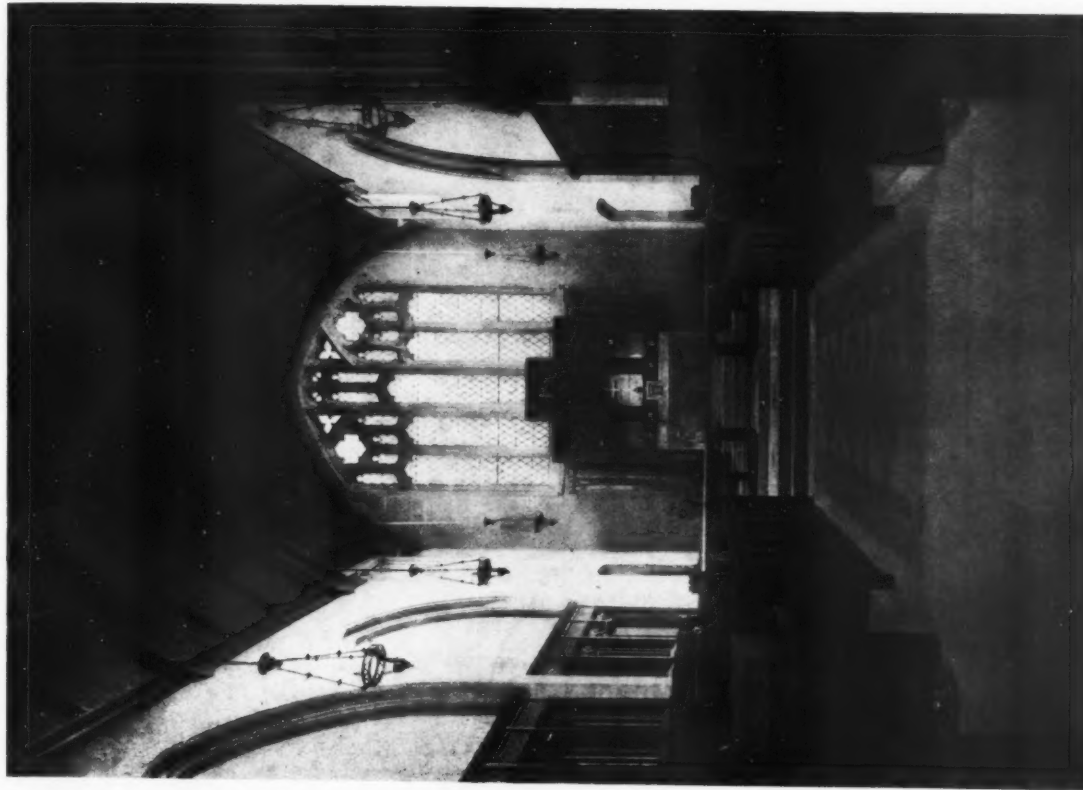
MESSRS. CRAM, GOODHUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS





ST. JOHN'S CHURCH, (EPISCOPAL) WEST HARTFORD, CONN.

MESSES. CRAM, GOODHUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS

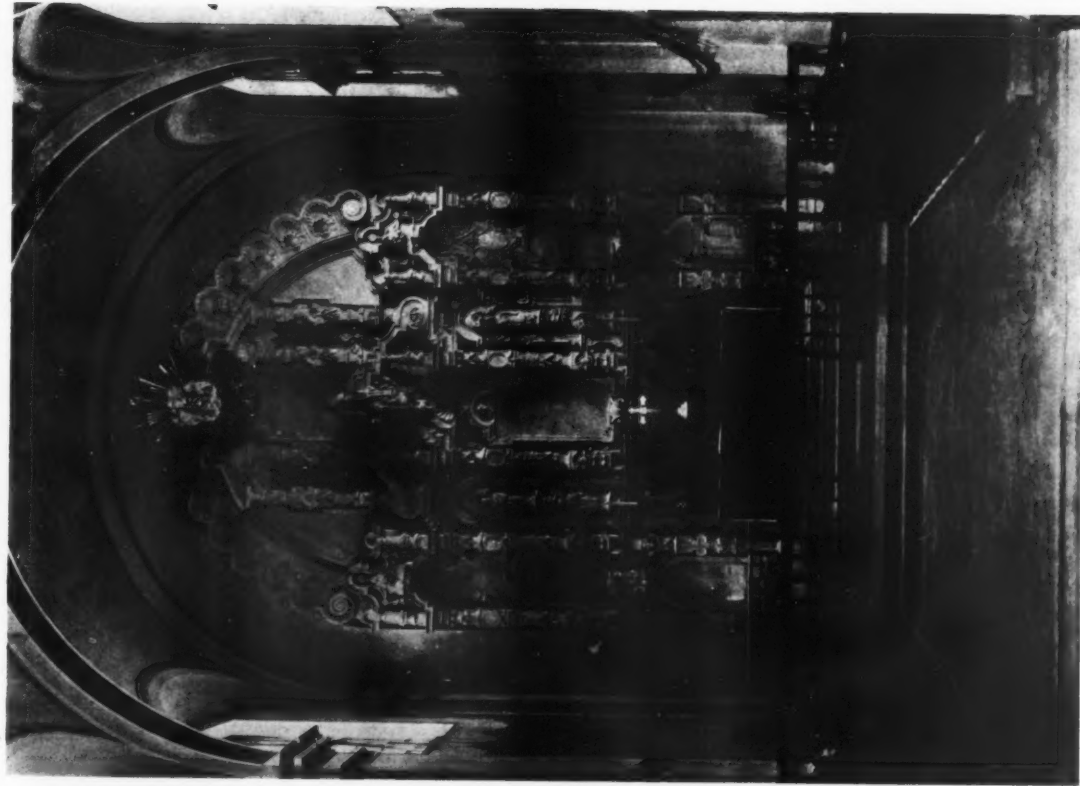


CHRIST CHURCH, (EPISCOPAL) WEST HAVEN, CONN.



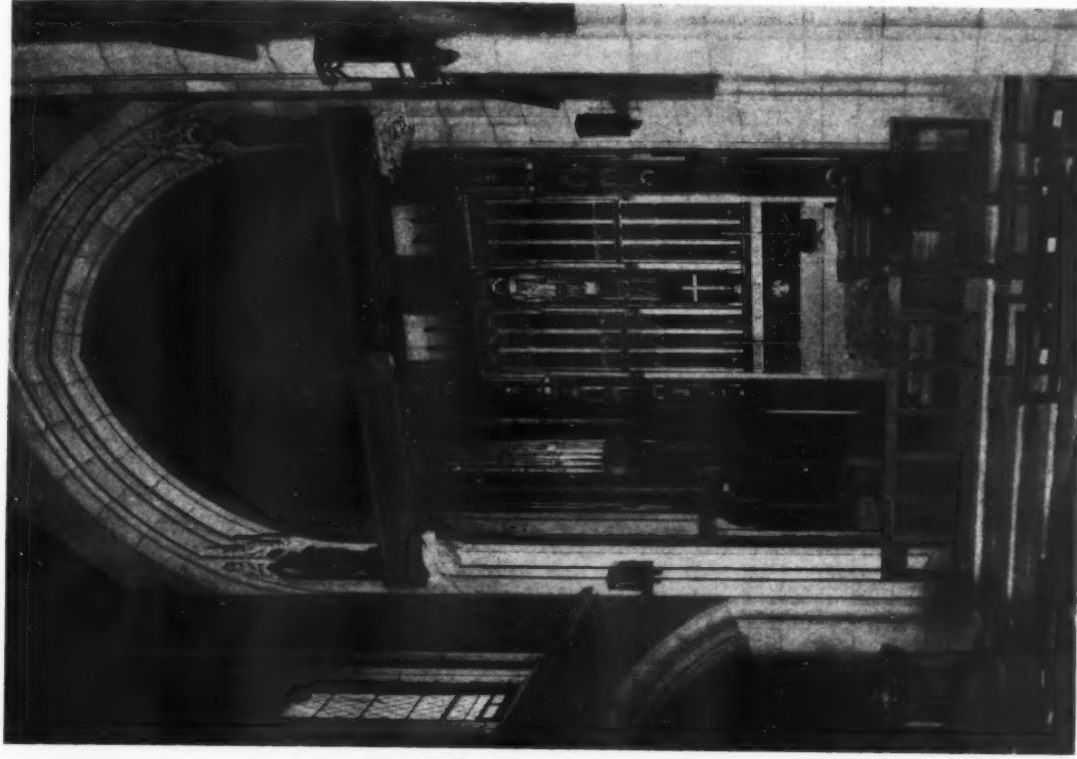
SOUTH CHURCH, (DUTCH REFORMED) NEW YORK

MESSRS. CRAM, GOODHUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS



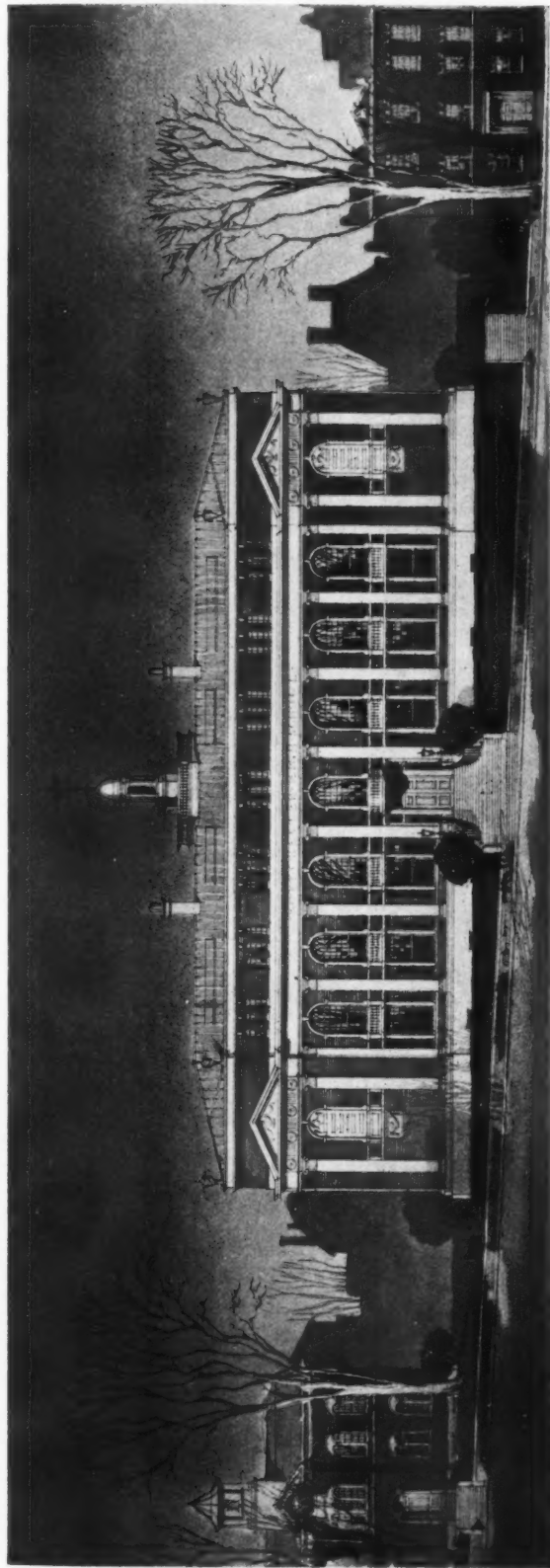
IGLESIA DE LA SANTISIMA TRINIDAD (EPISCOPAL PRO-
CATHEDRAL), HAVANA, CUBA

MESSRS. CRAM, GOODRUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS



HIBBARD MEMORIAL CHAPEL, GRACE CHURCH,
(EPISCOPAL) CHICAGO, ILL.

MESSRS. CRAM, GOODRUE & FERGUSON (NEW YORK OFFICE), ARCHITECTS



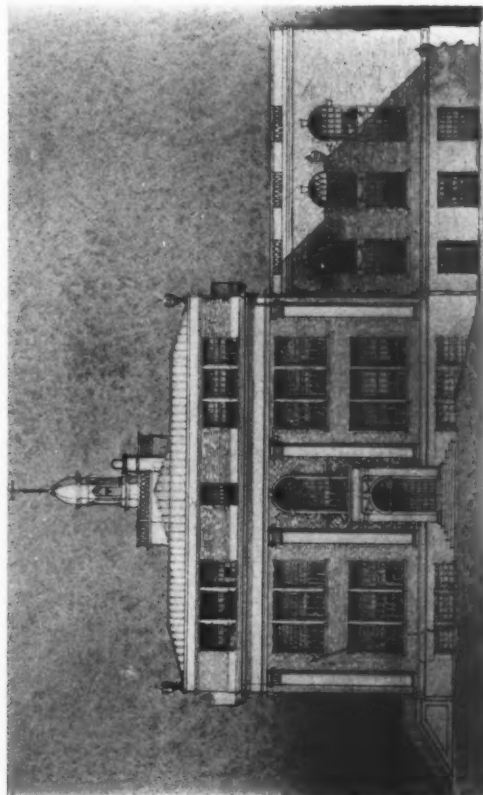
FRONT ELEVATION

HIGH SCHOOL, PORT CHESTER, N. Y.

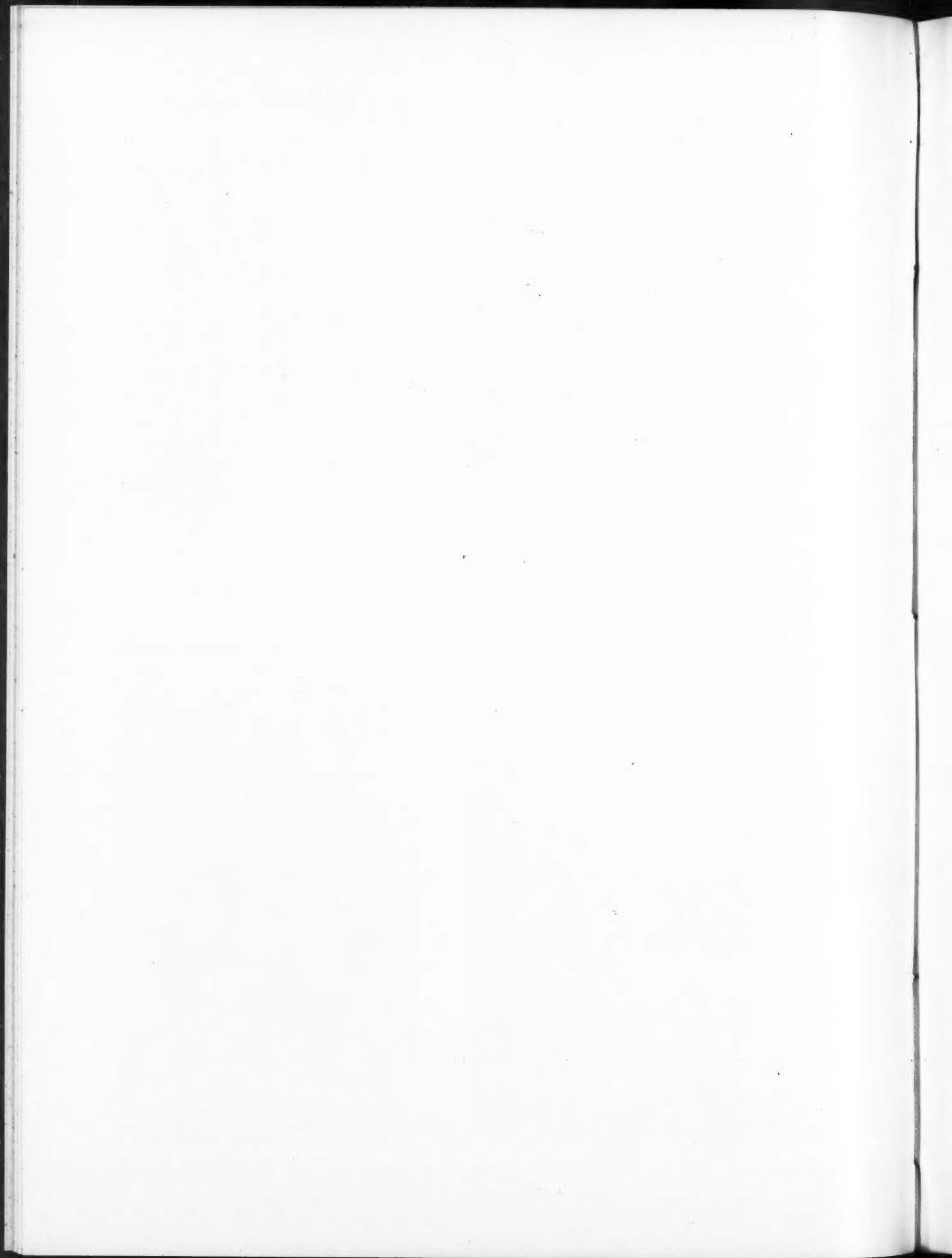
WINNING COMPETITIVE DESIGN

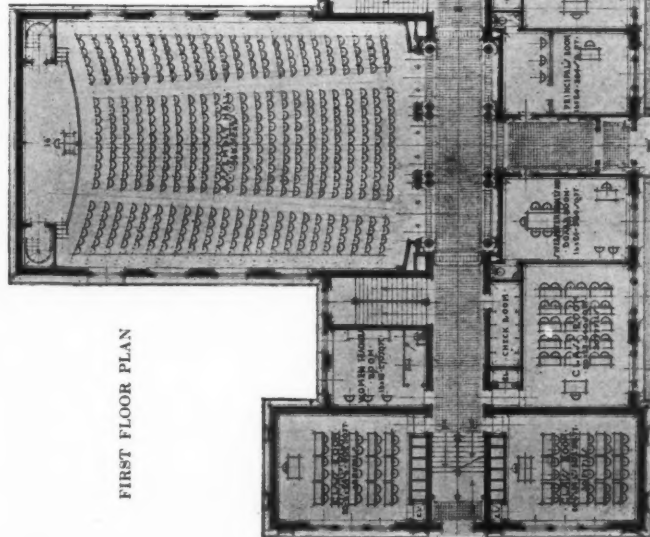
MESSRS. HEWITT & BOTTOMLEY, ARCHITECTS

The desire of the architects to achieve a symmetrical facade, in keeping with the Georgian style imposed by neighboring buildings, was logical even on a sloping street front. It happened that on the side of the lot toward the lower street level there was a solid rock formation, which would have added greatly to expense in excavation had the floor levels been dropped on that side and the terrace been removed. All class rooms and the study hall are lighted from windows at ceiling height, with the light falling over left shoulders of the pupils. The average proportion of window opening to the floor area is thirty-four per cent., and to the opposite wall of the room, fifty-three per cent.



EAST ELEVATION





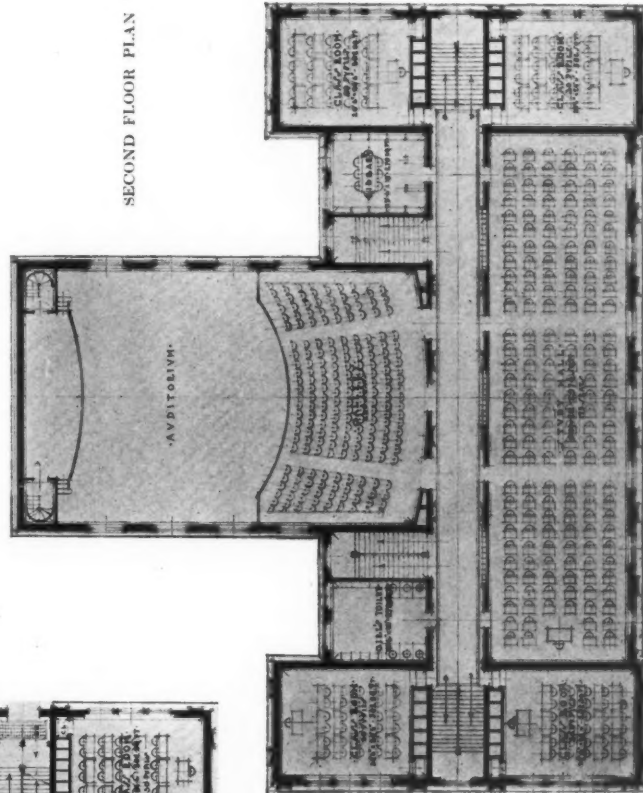
FIRST FLOOR PLAN

The entrances at each end of the building, for boys and girls respectively, are located at grade level, intermediate between locker rooms in the basement and class rooms in the first story, thus avoiding exterior steps. Emergency exits are provided from the auditorium and from the gymnasium in the basement level. All class room doors are located within ten feet of a stairway.

The study hall accommodates 175 pupils all under supervision from one point.

The assembly hall, with gallery, is intended to seat about 800.

The construction is fireproof throughout. The floors are of reinforced concrete slab construction supported by steel beams.



SECOND FLOOR PLAN

HIGH SCHOOL, PORT CHESTER, N. Y.

WINNING COMPETITIVE DESIGN
MESSRS. HEWITT & BOTTOMLEY, ARCHITECTS

CURRENT NEWS AND COMMENT

SAN FRANCISCO CHAPTER A.I.A. MINUTES OF JANUARY, 1914, MEETING

The regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held on Thursday evening, January 15th, 1914. The following amendments to the Constitution and By-Laws were read and, in accordance with the present By-Laws, the Secretary was directed to forward copies to the members for a letter ballot. Article VI, Section I of the Constitution was altered to read:

Section I. The Constitution may be added to, altered or amended, upon a two-thirds vote of the members voting, of all Institute and Chapter members in good standing; provided, that at least twenty days' previous notice of proposed change shall have been sent by the Secretary to each Institute and Chapter member, who is qualified to vote. Vote to be obtained by letter ballot.

Article XI, Section I in the By-Laws was altered to read as follows:

Section I. These By-Laws may be added to, altered or amended at any regular meeting of this organization, provided that the proposed amendment shall have been submitted and read at a previous regular meeting or special meeting called for that purpose, and also a copy thereof in printed or written form delivered or mailed to each member at least twenty days prior to the date of proposed final action thereon. A two-thirds vote of all members voting shall be necessary to final adoption. Vote to be obtained by letter ballot.

The other amendments discussed were referred to a Special Committee on Revision of Constitution and By-Laws as follows: Messrs. William Mooser, Edgar A. Mathews, and Sylvain Schnaittacher.

The Secretary was directed to communicate with the New York and Philadelphia Chapters as to the operation of the Chapters with reference to Junior Membership.

The Chair announced with regret that since the last meeting, the Chapter had lost from its membership through death

Ernest Martin Hoen of Sacramento, and F. H. Martens of San Francisco. The Secretary was directed to send suitable letters of condolence and sympathy, expressing to their families the regret of the Chapter at the demise of these members.

BILL TO REGULATE THE PRACTICE OF ARCHITECTURE FAILS OF PASSAGE IN SOUTH CAROLINA LEGISLATURE

The South Carolina State Senate on January 27th opposed, to a point that prevented its passage, a bill defining the qualifications for the practice of architecture in that state, and providing for the licensing and examination of architects. In the debate it was freely stated that the bill would, in effect, create a monopoly in the practice of architecture.

The clause to which particular objection was taken was the one reading as follows: "Any person practicing architecture in this state without a license shall be guilty of a misdemeanor and subject to a fine of one hundred dollars for each and every day so practicing, and shall not be entitled to recover compensation for his or her services."

BOSTON'S NEW CITY PLANNING BOARD

Four members of the new city planning commission, which was provided for under an ordinance recently passed by the city council, have been appointed by Mayor Fitzgerald. These appointees are Ralph Adams Cram, President of the Boston Society of Architects; William C. Ewing, engineer, and also chairman of the Chamber of Commerce City Planning Committee; Henry Abrahams, of the Boston Central Labor Union, and John Jackson Walsh, an attorney.

Under the ordinance the fifth member of this board must be a woman, and the mayor, it is stated, has not yet decided on his selection to fill the place still vacant.

PERSONAL

Mr. Ernest J. Kump, architect, of Fresno, Cal., with an office in the Rowell Building, desires manufacturers' literature and samples to place on file in his office.

THE AMERICAN ARCHITECT

FOR FIRE PROOF SCHOOLS

MORE THAN FIFTY-FIVE SCHOOL FIRES REPORTED
IN INDIANA SINCE MAY—OHIO CODE CITED

There have been more than fifty-five schoolhouse fires in Indiana since the establishment of the office of state fire marshal last May, according to a press dispatch from Indianapolis. Inasmuch as this report includes only seven months of the last year, W. E. Longley, fire marshal, believes the number of fires in Indiana schoolhouses within a year's time will reach one hundred.

"In the construction of school buildings," Mr. Longley said, "plans for fire prevention should be more carefully considered than in almost any other building. More than a half-million school children gather in the public schools five days out of the week, 250,000 of them in buildings of more than one room. In very few of these buildings have proper provisions been made for the protection of life against fire."

There are at present 9,020 school buildings in the state. Of that number, 4,620 are made of brick, 4,272 are of frame construction, ninety-five are of stone, thirty-one of concrete and two are of logs. The hazards from fire in frame buildings are believed to be very dangerous.

Because of the many schoolhouse fires in the state each year, Mr. Longley is urging that particular precautions be taken by cities and townships in the construction of such buildings. The safe location of all exits and stairways is especially urged, while every safeguard against fire from heating plants is advised.

In making his recommendations for safe schoolhouse construction Mr. Longley is being guided by the Ohio building code, adopted soon after the Collinwood disaster in Ohio, in which the lives of more than one hundred and sixty school children were lost. This code not only creates definite standards for building construction, but provides for a statewide system of inspection as well.

Among other requirements, the Ohio building code definitely names the space to be occupied by buildings for the various grades, and fixes a maximum height for each. It provides for fire provisions and fire stops, for the purpose of preventing the

spread of fire from one part of the building to another.

All heating plants, by the Ohio code, must be placed in a fireproof heater room, and no boilers carrying more than thirty-five pounds of pressure are permitted within the walls of a school building. The spacing of desks, the requirements for safe electric wiring and the location of heater pipes near exits are all provided for in the code.

Because in many of the tragedies from burning schoolhouses it has been definitely shown that even the simplest precautions would have been sufficient to save many lives, Mr. Longley is anxious to impress upon every Indiana community the need for securing safety in schoolhouse construction.

SUGGESTIONS AS TO ORGANIZATION OF ART COMMISSIONS

REPORT OF COMMITTEE APPOINTED AT CONFERENCE
IN NEW YORK IN 1913

A pamphlet, being the report of a committee appointed at a conference of members of art commissions, held in New York City last May, has been issued by the Art Commission of the City of New York. It deals with the formation of art commissions, both city and state, the suggestions contained being based on the experience of a number of cities. It answers in the fullest way every pertinent inquiry on the part of those proposing to organize commissions in places where they do not now exist and to further the establishment of such commissions.

Two forms of statutes are presented in this pamphlet, applicable to large and small cities. There is also included a form for the organization of state art commissions, together with many practical suggestions, based on experience as to correct methods of administration.

The demand all over the country for information that would facilitate the organization of commissions that would have charge of the artistic development of communities and states has led to the publication of this admirable report.

Copies may be had by application to the Art Commission, City Hall, New York City.



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BRIDGEPORT, CONN.

THE AMERICAN ARCHITECT

FOUNDATION OF ST. PAUL'S CATHEDRAL

The architectural and engineering press of Great Britain has been discussing at some length, measures designed to insure the stability of the foundation of St. Paul's Cathedral. Existing conditions are said to be a menace to this important structure, and unless some means are speedily provided there is danger of collapse, at least in part, of the under-structure of the building.

It is stated that investigation has shown that the sand and gravel on which the cathedral foundation stands has, by reason of drainage induced by adjoining building operations, become dry and unstable. Until recently the gravel on which St. Paul's is poised has been, it is claimed, bound together by the natural moisture filtering through from the surface, and therefore contributing to the stability of the edifice.

The plan proposed is to re-water the sub-soil and therefore set up a new cohesive action. A vast container would have to be constructed below the surface, and those proposing this scheme suggest a clay flooring with a concrete enclosure. By this method, it is believed the whole of the cathedral site would become isolated, and into the concrete container could be directed sufficient water to insure the necessary moisture for cohesion.

PLAN TO CONTROL BILLBOARDS IN NEW YORK

It is reported that a campaign will soon be begun by the Board of Aldermen of New York City and the New York State Legislature, to control the erection and placing of billboards and electric signs, which have escaped municipal regulation and taxation thus far because of decisions in their favor by the Court of Appeals.

The plan proposed, it is stated, is to introduce ordinances which will compel those constructing billboards to have regard to the fire hazard they involve as exposures to adjoining buildings.

THE AMERICAN ACADEMY IN ROME

It is announced in press dispatches that the Rockefeller Foundation, control-

ling the funds set aside for philanthropic and other uses, has announced the appropriation of \$10,000 a year for ten years as a contribution toward the fund for the support of the American Academy in Rome.

A VALUABLE CONTRIBUTION TO THE LITERATURE OF TOWN PLANNING

As a result of the interest which has been manifested in recent years in housing reform and progressive city planning, the American Academy of Political and Social Science, which has its headquarters in Philadelphia, has recently issued a symposium on "Housing and Town Planning."

The work incidental to the collecting and editing of the various articles which constitute this volume, has been in the hands of Dr. Carol Aronovici, general secretary of the Suburban Planning Association of Philadelphia.

SPRING EXHIBITION, NATIONAL ACADEMY OF DESIGN

The Spring Exhibition of the National Academy of Design will be opened in the Fine-Arts Building, 215 West 57th Street, New York City, on Saturday, March 21st, continuing until Sunday, April 26th, 1914.

WILLIAM CURLETT, ARCHITECT, DEAD

William Curlett, F.A.I.A., of San Francisco, Cal., died at his residence at Menlo Park on January 21st, after an illness of many months. Mr. Curlett has served as a member of the California State Board of Architecture since its formation, and was prominently identified with architectural and social organizations on the Pacific Coast.

PERSONAL

The partnership heretofore existing between Mr. Matthew O'Brien and Mr. Carl Werner, architects, San Francisco, Cal., has been dissolved by mutual consent. Mr. O'Brien will practice at 621 Foxcroft Building, and Mr. Werner at 952 Phelan Building. Mr. Werner desires manufacturers' samples and catalogues.



Grand Central Terminal, N. Y. C. R.R., New York City

N. Y. Central and Pennsylvania Terminals

What Keeps Them Dry?

THE famous New York Central and Pennsylvania Terminals in New York City cover vast areas of subterranean construction.

These terminals are probably the two mightiest in the world.

To protect these great underground structures from dampness and water, the engineers in both cases used coal tar pitch in staggering quantities—many millions of pounds. The basement walls and huge floors are lined with a continuous and unbroken seal of coal tar pitch, as are also the tunnel walls.

Practically every great structure is waterproofed with this material because such waterproofing is standard, and if the work is properly done by

reliable contractors, it will remain as long as the building stands.

Coal tar pitch undergoes no physical or chemical change in damp or wet soil, and never loses its waterproofing qualities.

Protection against water is vital in these terminals and the engineers would willingly have paid any price to get the best. The selection of this material, therefore, emphasizes the fact that the greatest railroad engineers of the country are satisfied that coal tar pitch waterproofing is unsurpassed.

It is also significant that a very large part of the purchases was Barrett's Specification Pitch and Barrett's Specification Tarred Felt, the best grades of pitch and felt made.

To anybody interested in waterproofing, we should be very glad indeed to supply further information on request.



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THE AMERICAN ARCHITECT

The partnership heretofore existing under the name of J. & M. Kennedy, architects, Wilmington, Del., has been dissolved, by reason of the death of Mr. M. Kennedy. Mr. John J. Kennedy will continue in practice.

Messrs. Price & McLanahan, architects, Philadelphia, Pa., have removed their offices to the new Bellevue Court Building, 1418 Walnut Street.

INDUSTRIAL INFORMATION

CASEMENT WINDOWS

The increasing use of casement windows in houses both city and country, and also in several recently designed commercial buildings has led to inquiries concerning certain existing types of this form of window. In so far as it relates to a specific type, architects will find interesting information in an illustrated pamphlet issued by International Casement Co., Inc., Jamestown, N. Y. This catalogue, measuring ten by fourteen inches, appears to have been carefully prepared and with a view to imparting to architects a comprehensive idea of the various types of windows manufactured.

A feature that will be helpful is the reproduction of elevation, section and ground plan of different forms, drawn in detail to full, or half full, size.

Artistic interest is given this catalogue by the publication of photographs of English houses, some dating from the Tudor period, wherein the casement window is introduced. This affords an opportunity to study the artistic application of casements and marks a trade catalogue of unusual suggestive value.

FILTERS

Catalogue No. 8, issued by the Lynn-Superior Co., 3248 Spring Grove Avenue, Cincinnati, O., not only illustrates and describes the line of filters made by this company, but also discusses at some length the various methods of filtration in present use for the purification of water supply.

The filters more particularly referred to in the catalogue are a "Granule" type, including steel and cast iron quartz coagulant and non-coagulant types. Any discussion as to the necessity for a pure and ample water supply is unnecessary, but it is interesting to learn of methods that have been perfected to accomplish these desired ends. This information is to be found in the catalogue referred to, which may be had on application.

HEATING AND VENTILATING ENGINES

In the preface of an illustrated catalogue issued by the New York Blower Co., of Chicago, Ill., it is stated that it has been the purpose to describe the fans and heaters manufactured by this company, and have this description accompanied by cuts and tables giving capacity, space requirements, weights and comparative prices, in a manner thought to be helpful to architects and engineers. Trade literature prepared along these lines is always helpful. The catalogue may be had on application.

A RE-INFORCED CONCRETE SYSTEM

The Turner Mushroom System of reinforced concrete construction is illustrated and described, with particular reference to its use in commercial buildings and bridges, in Bulletin No. 12, issued by C. A. P. Turner, whose main office is in Minneapolis, Minn.

The various advantages claimed for this form of construction are set forth at some length in the pamphlet referred to, which may be had upon application. Illustrations of a number of buildings and bridges either completed or in process of construction, are included in the pamphlet.

"DOORWAYS"

"Doorways," the "house organ" of Richards-Wilcox Manufacturing Co., Aurora, Ill., for January, illustrates and describes various forms of hangers for "any door that slides," all of which are made by this company. This concern also manufactures door guides and weather strips. "Doorways" may be had by architects regularly upon request.

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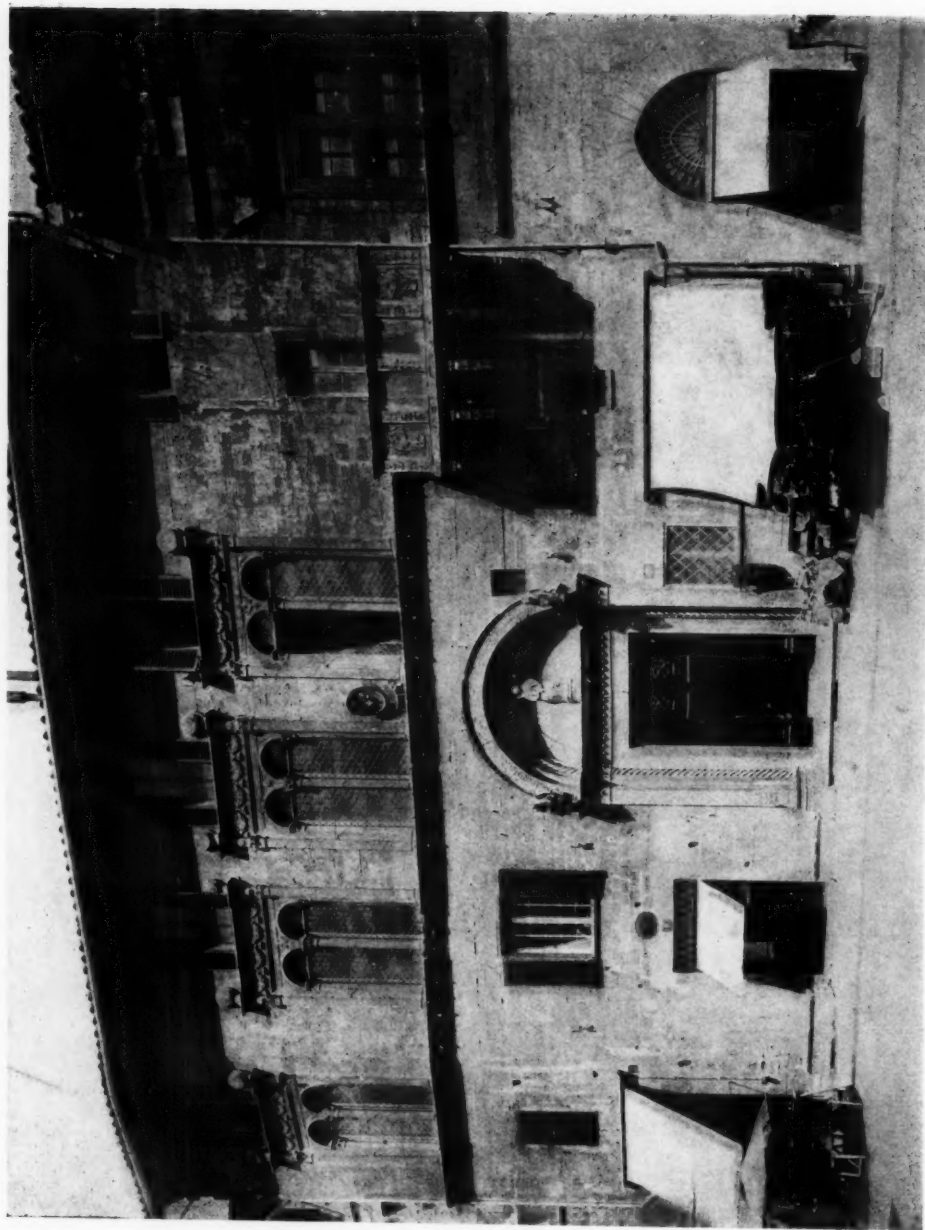
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FACADE OF A PALACE IN PERUGIA, BUILT 1472