

THE AMERICAN ARCHITECT

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PAINTINGS IN THE REREDOS OF ST. ANDREW'S CHAPEL, CHICAGO

CHANCELS, THEIR ARRANGEMENT AND FURNITURE

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

By ROGER SPELMAN

BEING PART IV OF A SERIES OF SEVEN ARTICLES

THE early Christians were taunted with having a religion which allowed no altars; and Origen admitted this to be so, when, in his reply to Celsus, he said, "The heart of every Christian is an altar."

Strictly speaking the word "altar" means "A base or pedestal used for supplication and sacrifice"; but actually, of course, the first Christian altars were the movable wooden tables about which the faithful gath-

ered to "break bread," secretly in private houses. This usage of seating all the communicants about the table was common in the first century and possibly after; and we have early paintings showing such a scene in the Catacombs. As the Church gathered numbers, such an arrangement was bound to prove impossible and various practices were introduced similar to our present usage.

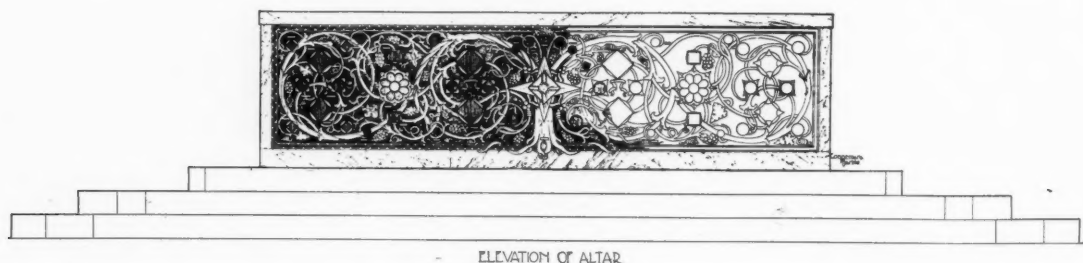
When persecution ceased and the Church, emerging from the Catacombs, had public

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places of worship, it was no longer necessary or desirable to have movable altars, and naturally more costly and permanent materials gradually took the place of wood. Tradition says that early in the second century Pope Evaristas forbade the use of wooden altars, and again in the fourth century Pope Sylvester issued an edict against them. But movable wooden tables were used as altars certainly as late as 250 and probably much later. Indeed, from a passage from William of Malmesbury altars of wood were apparently used in England as late as the middle of the eleventh century. From a capitulary of Charlemagne forbidding the celebrating of mass except on stone altars

Tyre, even celebrated mass on the hands of his Deacon. Theodore, Bishop of Canterbury, says that mass may be said out of doors without an altar, or even a portable altar, if the chalice is held in the hands. It is now the usage to celebrate on a stone altar; but if it be of wood or other material, there must be a stone in the middle of the altar, of the portable variety. Even now the Greek church "allows altars of wood, stone or metal to be used."

It is doubtful whether portable altars were allowed before the eighth century. They were used, however, before the Christian era, one from Gaza dating about 200 B. C., being of limestone, 6 inches square,



ELEVATION OF ALTAR

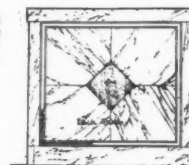


TOP OF ALTAR

DETAIL OF ALTAR, CHAPEL OF THE INTERCESSION

BERTRAM GROSVENOR GOODHUE, ARCHITECT

ALTAR FOR THE CHAPEL OF THE INTERCESSION
135th STREET & BROADWAY
NEW YORK CITY
BERTRAM GROSVENOR GOODHUE
ARCHITECT
2 WEST 47th STREET
NEW YORK CITY



ELEVATION OF END

consecrated by a Bishop, wooden altars were apparently in use in his day. There are but few traces of them later than the ninth century.

These wooden tables were covered with stuffs, metal, and gold and jewelled inlays. The frequent reference to altars of gold from the fifth to the eighth centuries probably referred to these latter, though there may have been altars that were literally of gold, as Herodotus says the great altars of Babylon were.

Mass was allowed to be said on gold, silver or wooden altars. Theodore, Bishop of

and having cut in the top five cups instead of the five crosses. They became very common in the eleventh and twelfth centuries and were used on journeys, in private chapels or in heretical countries. "They were small slabs of polished hard stone large enough for chalice and paten."

Throughout the huge dioceses of Mediæval England there were great numbers of unconsecrated altars, the side altars of small parish churches, those in manor houses, etc., it being impossible for the Bishops to reach all their parishes often enough to consecrate them. For use on

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these the Bishops consecrated great numbers of portable altars. Besides this they were probably used on the high altar on special feasts for greater reverence. "These were usually made of valuable stone or set in precious metal and jewelled, and at Glastonbury was an ancient super altar so richly garnished that it went by the name of 'the great sapphire of Glasconberye.'"

Pope Felix (267-264) decreed that "mass should be celebrated upon the tombs of the martyres," possibly because of the reading of Revelations 6-9, "I saw under the altars the souls of them that were slain for the word of God." These practices developed into the mediæval rule that no altar could be consecrated unless it contained a relic or relics. The later multiplication of altars may have been due to this edict; or, perhaps more, to the celebrating of mass by each priest. In primitive times there was but one altar in each church.

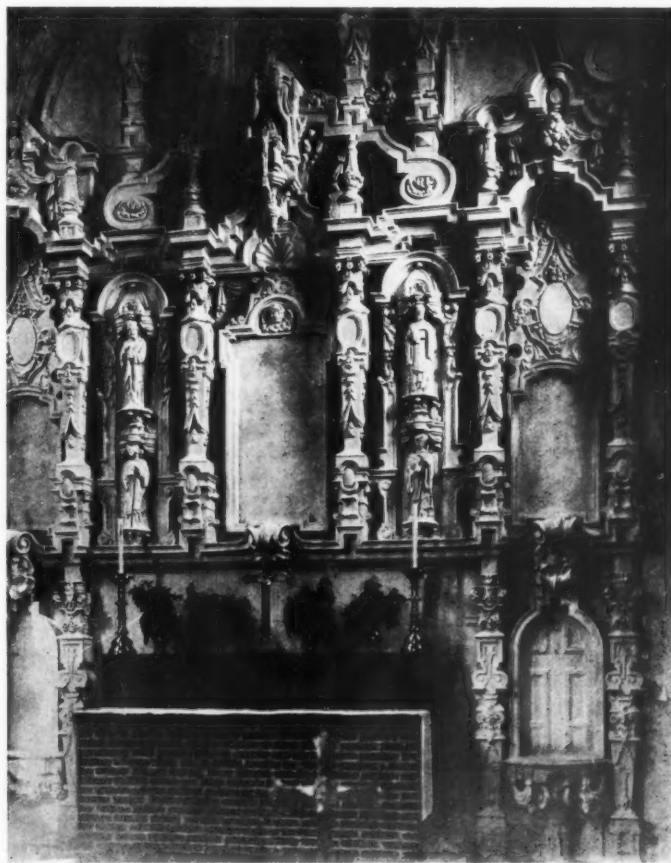
An interesting list of such relics placed in an altar is that of the one dedicated to St. John Baptist in Christchurch, Hants, in 1214. The relics "included parts of the vesture and robe of our Lord; parts of the vestments of the blessed Virgin; bones of St. John the Baptist and Sts. Peter and Paul; some of the blood of St. Stephen, bones of Sts. Laurence, Blasius, Victor, Vincent, Alban, Hippolytus, Polycarp, Urban, Chrysogonus, and Holy Innocents; bones of the martyrs and confessors, Martin, Julian, Simplicius, and Joseph of Arimathea; some of the oil of St. Nicholas, monk of Rome; and bones of the virgin saints, Agnes, Alice, Lucy, Julianna, Perpetua, Margaret, Agatha, Beatrice and Martha."

There are frequent references to stone altars in the fourth century. In the council of Epaone (517), it was decreed that none but stone pilared altars should be consecrated with chrism. Though stone took the place of wood,

the altar was still conceived of as a holy table, and was supported on one, two, four, five or six columns or shafts, most of the Greek altars having but one. These open altars lasted up to the fifteenth century, when the sarcophagus or solid type was introduced.

The altars were usually cubical in mass, not long and narrow as at present. They were extremely simple, and all ornamental accessories were placed around and separate from the actual altar, for the table was thought too holy to carry anything but the "mystic oblation" itself. It was not until the Middle Ages that ornaments of various kinds were placed on the mensa.

Frequently the mensa was hollowed out, dished like a platter, with small holes at the corners to facilitate drainage. In one such altar still preserved, the depression measured six centimeters.



REREDOS, PRO-CATHEDAL, HAVANA, CUBA



FIGURES IN REREDOS OF TRINITY CHAPEL,
BUFFALO, N. Y.

With the triumph of the Church, a change had come in its way of looking at the altar and the sacrifice. The holy table was now given the utmost prominence and shown the most profound respect. The holy sacrifice was now felt to be a mystery so awful that it must be screened by veils even from the eyes of the faithful. In the Greek Church grew up that "fear and dread" of the "awful" and "terrible" sacrifice upon which Chrysostom insists—the priest's feeling of unworthiness—which was expressed by the shutting of the people entirely from the sacrifice, by the iconostasis or solid screen. In the Latin Church, however, it has always been the sacrifice of the priest and the people; and the veils, which shut off the celebration, gradually disappeared; so that to-day the altar stands open to all. At one time, however, they enclosed it on all sides.

It was perhaps partly to carry these veils, but more to give dignity to the altar that the baldachin or ciborium came into use. This had long been a symbol of honor universally placed above the seats of rulers. The ciborium served to support the cross, to carry suspended lights and votive crowns, gold and jewelled, and other offerings. Besides this it was of great architectural advantage, marking the altar as the great

central point of the church, for the altars of the basilicas were so small as to need something of the kind to give them dignity and in order to have them dominate their setting.

The *Caeromoniale Episcoporum* (1-1213) calls "for a canopy or baldacchino to be supported over the altar of sufficient size to cover both altar and predella." They were sometimes hung from the roof by chains so that they could be raised and lowered like the canopies of the later Gothic period. Sometimes they were supported from the wall or reredos; but usually they were carried on four stone columns. With the lengthening of the altars in the Gothic period, they passed out of use; but the veils still remained, at least on each side of the altar, supported by four or six posts, while at the back was almost invariably a hanging (dossal) or later a retable. A good example of these riddle posts are those for St. Andrew's Chapel, Chicago. Often the angels carried instruments of the Passion instead of candles.

In the early Church, we saw that the clergy were seated around the apse so that the prelate had a view both of his clergy and the people beyond the altar. The people in turn could see the clergy. Just such an arrangement is that of South

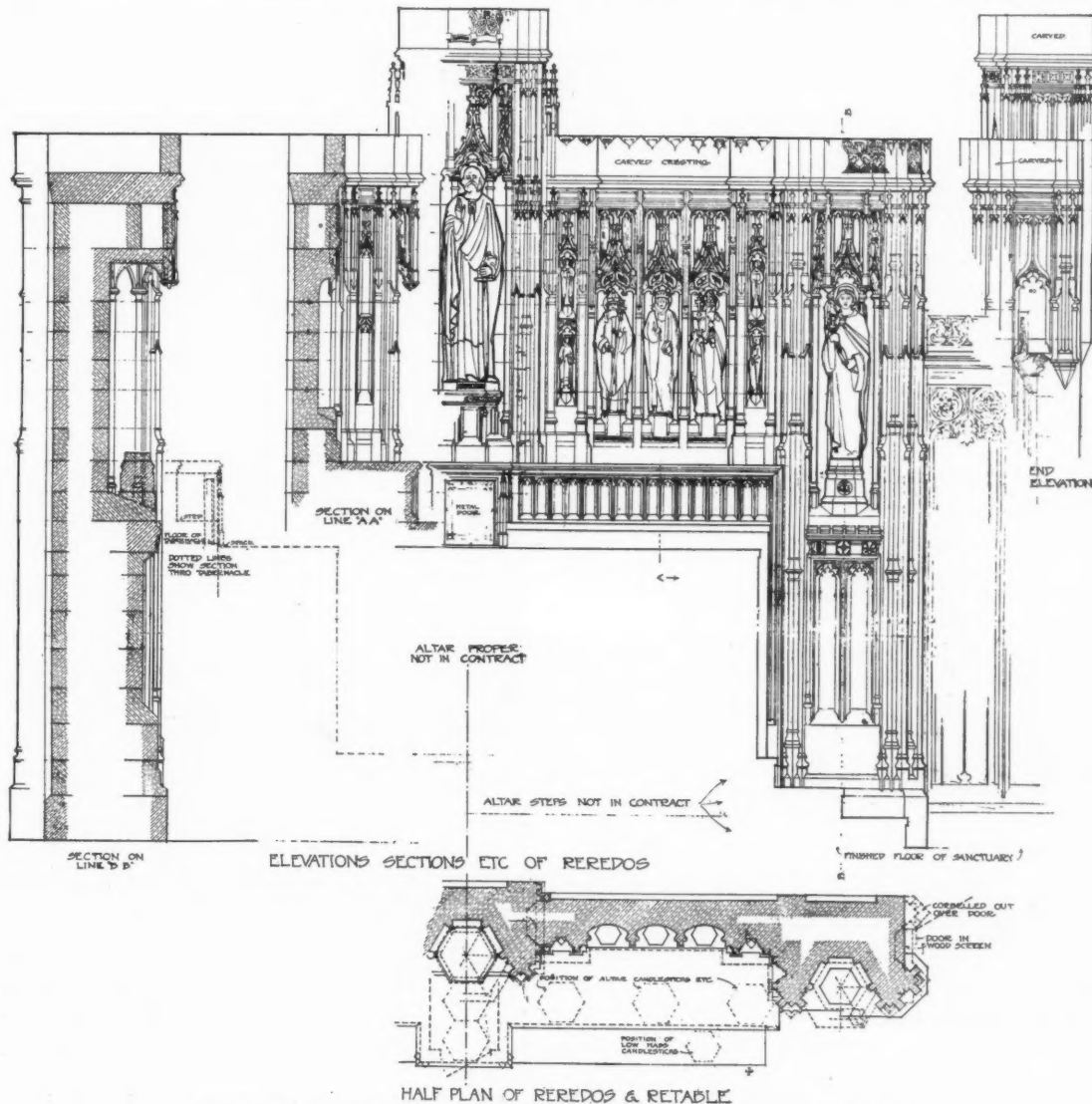


FIGURES IN REREDOS OF TRINITY CHAPEL,
BUFFALO, N. Y.

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Church, with its simple block altar, an illustration of which was shown in an earlier paper. When serving mass the celebrant faced the people from behind the altar. There could be, consequently, no retabes on the altars of the primitive church. These only appear when the seats of the clergy

Gradually the cross and candlesticks appear on the altar—and finally reliquaries in addition. That this last was protested against is shown by such legends as that told by Benau 1st, Abbot of Cluny, of the miracle working image of St. Gauburge. When this was placed on the altar the



REREDOS, ST. PAUL'S ROMAN CATHOLIC CHURCH, BROOKLYN, N. Y.

CRAM, GOODHUE & FERGUSON (New York Office), ARCHITECTS

were moved from the apse to the choir west of the sanctuary. The celebrant was now between the people and the altar and there was no objection to erecting a screen at the back of it.

miracles immediately ceased, the reason, as explained by St. Gauburge in a vision to one of the suppliants being that the altar should be reserved solely for the Divine Mysteries. Upon the consequent removal

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of the relics from the altar the miracles instantly recommenced.

This tendency, however, grew until on all festivals the treasure of the church was heaped and crowded upon the altar for the admiration of the faithful. Edmund Bishop quotes delightfully from an old authority. "To say the truth," he writes, "this altar is not happily conceived; it is so low and overburdened that it is no easy matter to descry the officiating priest. But it is certain that that there is not an altar in the kingdom more richly decorated and whereon there is a greater quantity of reliquaries and vases and candlesticks and branches and lamps and other such things, some of silver, some of silver gilt, some even of gold. Indeed, nothing is wanting to complete its magnificence; and besides it has ingenious and clever sacristans who are continually inventing new modes of adorning it." And Bishop adds, "We have reached the zenith; after this decline alone is possible." While an extreme case, this was by no means the exception. Why, then, should we be amazed at present-day vulgarities when toward the latter part of the period to which we turn for inspiration for all that is best in ecclesiastical art, such monstrous taste was prevalent?

The growing veneration for the relics of the saints in the ninth century strongly influenced the design of the Christian altar. It was no longer thought sufficient that these be placed beneath the altar, but they must be elevated and made conspicuous so that they could be approached more easily by the faithful. It was still thought a sacrilege to divide the bodies of saints, and as a result the shrine was usually as large as, or larger than, the table itself. They were placed just back of and at right angles to the altar, one end frequently resting on the mensa. The relics were housed in shrines so precious that it was soon thought wise to raise them above the people, leaving a passage beneath. The shrine was further glorified by having over it the baldachin that had previously stood over the altar. Some sort of screen was felt necessary to cover the opening left between the altar and casket, and this screen also usually supported the end of the shrine.* Usually the

screen stood clear of the table; but many rested directly upon the mensa.

Only the table was consecrated and while on that no image whatever was allowed in the presence of the Eucharist, as long as the early tradition was followed, the screen or retable was not consecrated and was



ALTAR, CHRIST CHURCH, WEST HAVEN, CONN.

freely adorned with carved and painted scenes and with gold and jewels.

The ever-increasing hosts of pilgrims soon made it desirable to move the shrines back, and free, from the altar, thus allowing an unobstructed passage all about them; but the retables remained where they had been.

As the taste for luxury displayed itself in the interior decoration of churches, the retables became more and more elaborate. Already very rich in the thirteenth century, though their lines were simple and severe, they soon began to increase in height and dominate the altar by presenting a "scaffolding" of ornament and figures often of large

*Viollet le Duc's admirable article on "altars" in his "Dictionnaire d'Architecture," gives drawings of various Medieval altars

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size, or a succession of subjects covering a vast field. Italy, Spain and England from the fourteenth century onward set the fashion for elaborate reredoses enriched with bas reliefs, niches, turrets, etc. The period culminated in such gorgeous examples as the reredoses of Winchester and St. Albans, Seville and the other great Spanish churches.

Of this type the new St. Thomas's reredos will be the greatest modern example. Rising clear from floor to vault, a mass of carving emphasized with rich though subdued gold and color, it will make the altar the focus of the entire church. The great reredos at Fall River and that in the pro-Cathedral at Havana with their paintings and niches, sumptuous richness everywhere, are good examples of the extreme late Spanish type called "Churrigueresco." The reredos at Havana, the whole of which was shown earlier, is not yet finished, has not received its painting or its gold and color which will be subdued but strong in true Spanish

style. Even in its unfinished state it is very convincing.

It has always been customary to drape the altar—for the sacrifice offered there, was an "unbloody one." The practice was not universal, however, at least in France, for occasionally references are made there to undraped altars. An example is that of Angers where the altars were bare, not covered with anything at all when not in use. Just before mass, altar cloths similar to those used on a dining table were placed on them. There was no frontal. Such a custom partially explains why some altars were so richly carved and decorated while others of the same period were severely plain. But "the rubrics of the Roman missal plainly order the altar to be covered with a frontal of the color of the vestments of the mass"—and "in the Church of England the frontal has always been required by law."

Even in the surroundings of the altar in the Gothic period there was a restraint in the use of the precious metals that lack of means alone cannot account for. They may have felt that gold and silver excited cupidity more than they moved the soul; but certainly they strove to honor the altar more by beauty of workmanship and perfection of handicraft than by richness of material. Though nothing approached the richness of the sanctuary, art in all things was placed above cost.

It is hardly worth while to consider the Rococo period; but the curious effect of the Reformation in England should be noticed.

The name "altar" was written in the "Communion Office" of 1549 and in the first prayer book of Edward VI. But early in this reign orders were given that all "altars" should be destroyed and that movable wooden tables should take their place. After the Reformation and during the Puritan period these tables occupied the old altar position; but during the celebration they were turned north and south. Many examples of the extension table or "telescope" altar remain, as that at Powich, Worcester, which measured nine feet three inches and which could be drawn out to a length of sixteen feet. "When used it was brought out into the church and fixed on trestles and the communicants would sit



PELICAN IN PIETY FROM CRESTING, CHAPEL OF THE INTERCESSION

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around it." Beautifully carved as many of these were, with their great melon legs, one cannot but feel how unsuitable they were for their purpose.

It is difficult to lay down any fixed rules for the size of altars. Generally they are too short and too high. G. G. Scott's rule that the length should be one third the width of the chancel is fairly good; though, unless the sanctuary be very wide, it will usually look better if a little longer than this.

The long altars of the late Gothic period certainly had a dignity that the earlier examples did not possess. The Arundel altar was 12' 6"—that in the chapel of the Palace of the Pope's at Avignon 14' 6", while that at

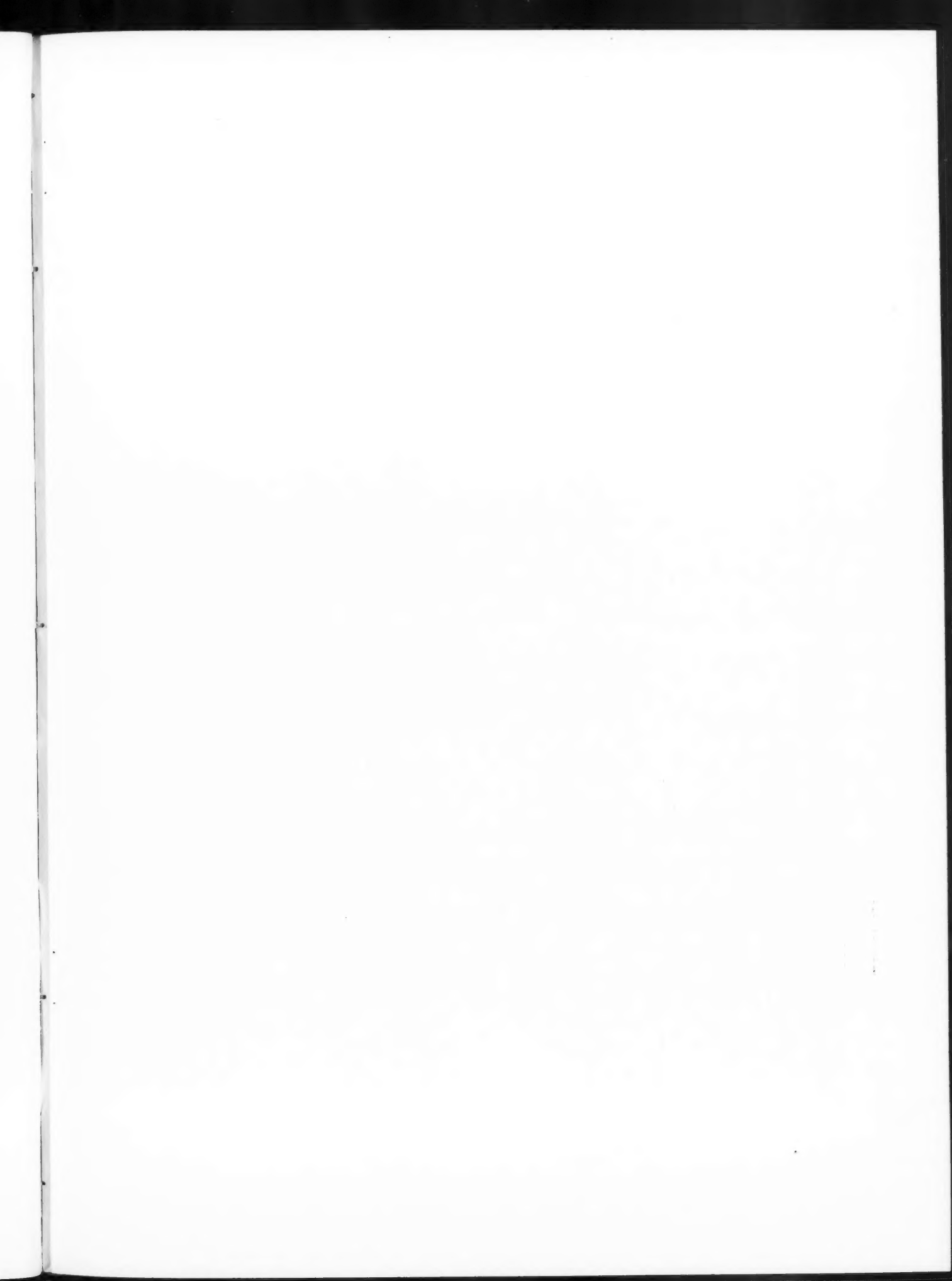
Seville Cathedral was 17'. The altar of the new St. Thomas's will be 12' 6". They should be at least 2' 6" deep and always more than this if possible. Of those illustrated, the altar at St. Andrew's Chapel, Chicago, is 5' 9" long 2' 11" high 3' 2" deep

Military					
Chapel at					
West Point	9' 6"	"	3' 4"	"	2' 9"
St. Paul's					
Church, Du-					
luth	10' 0"	"	3' 3"	"	3' 0"
Chapel of					
the Interces-					
sion	12' 0"	"	3' 4"	"	3' 6"

(Continued on page 189)



ALTAR, FIRST BAPTIST CHURCH, PITTSBURGH, PA.

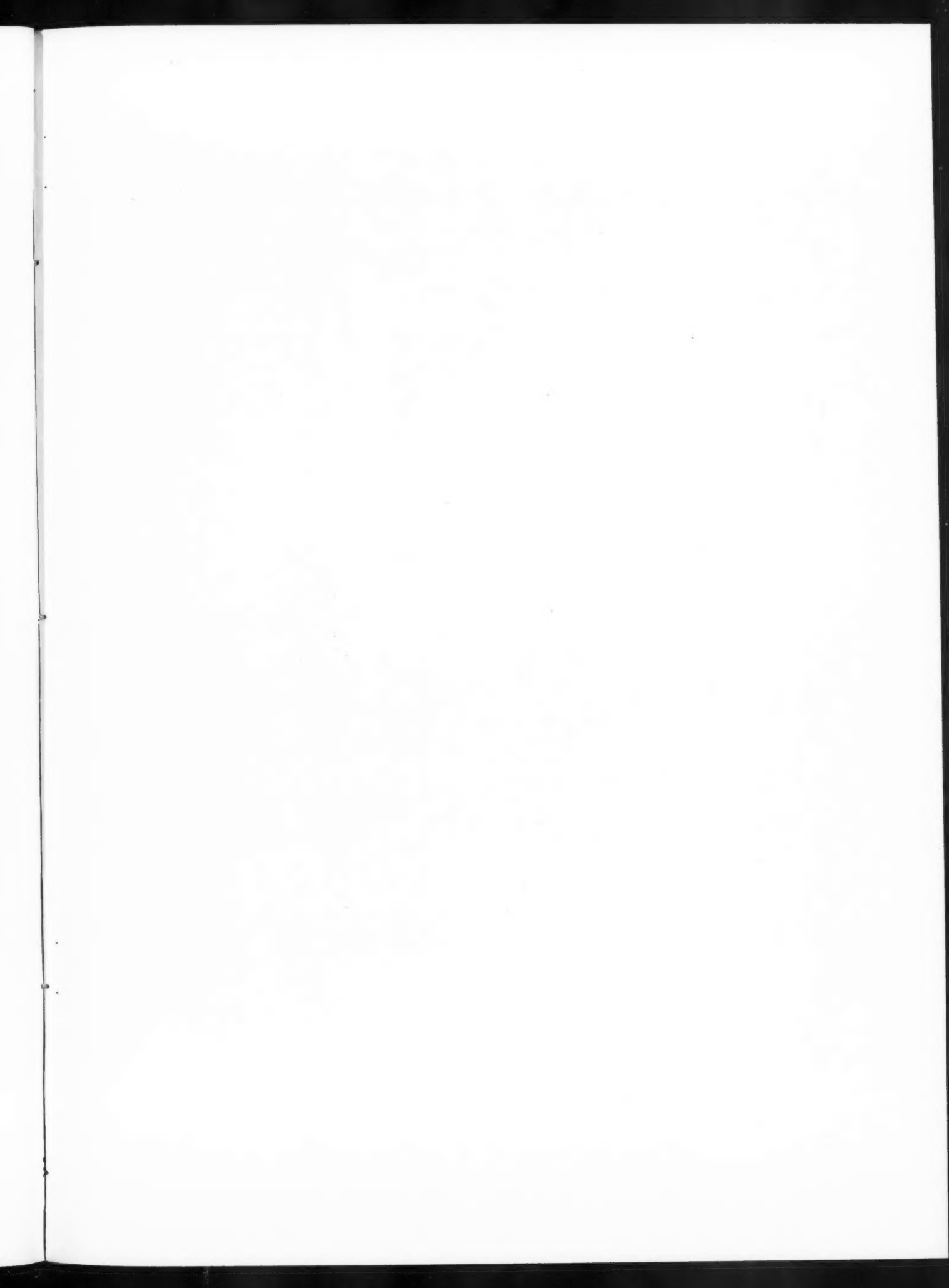


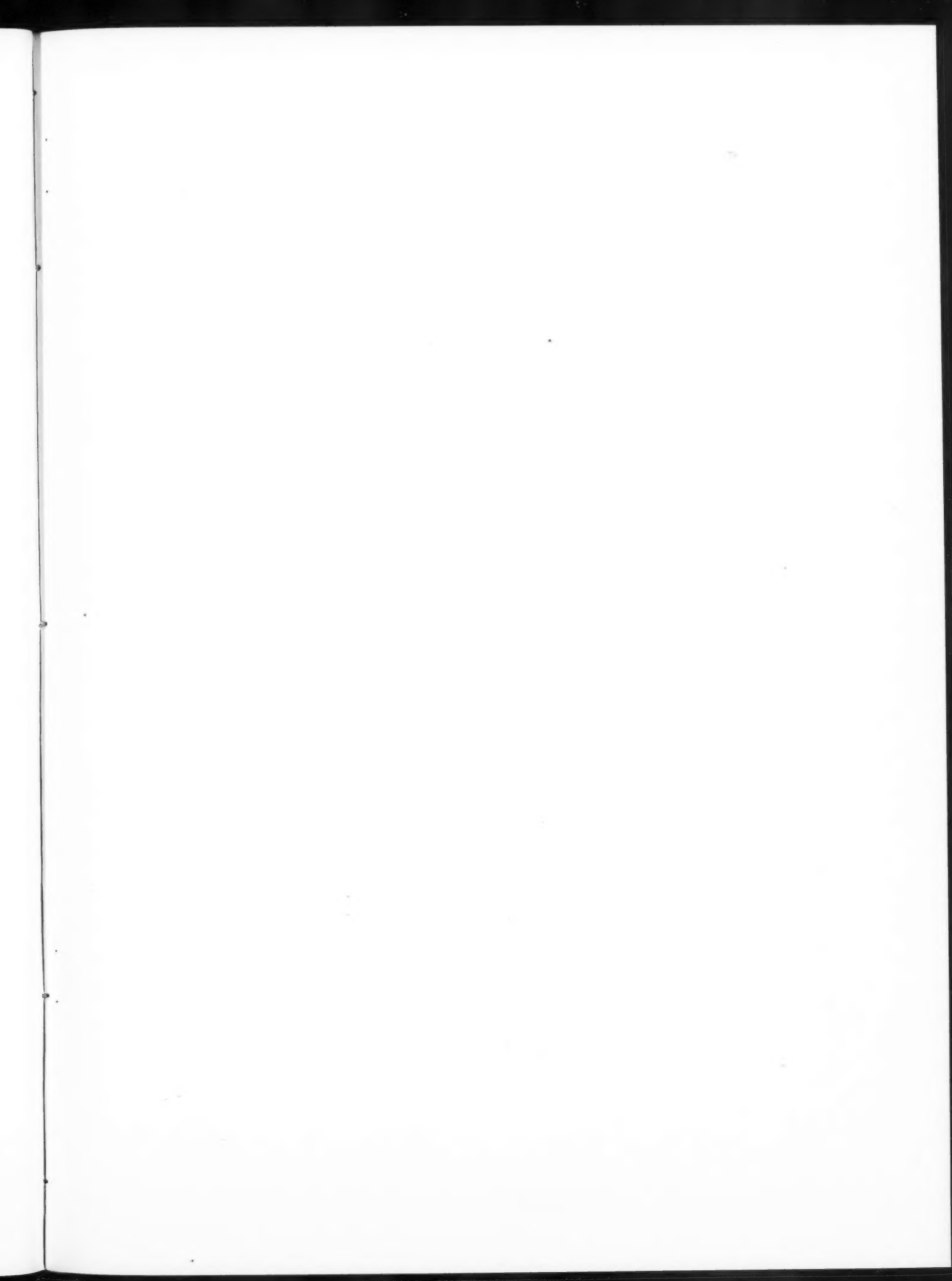


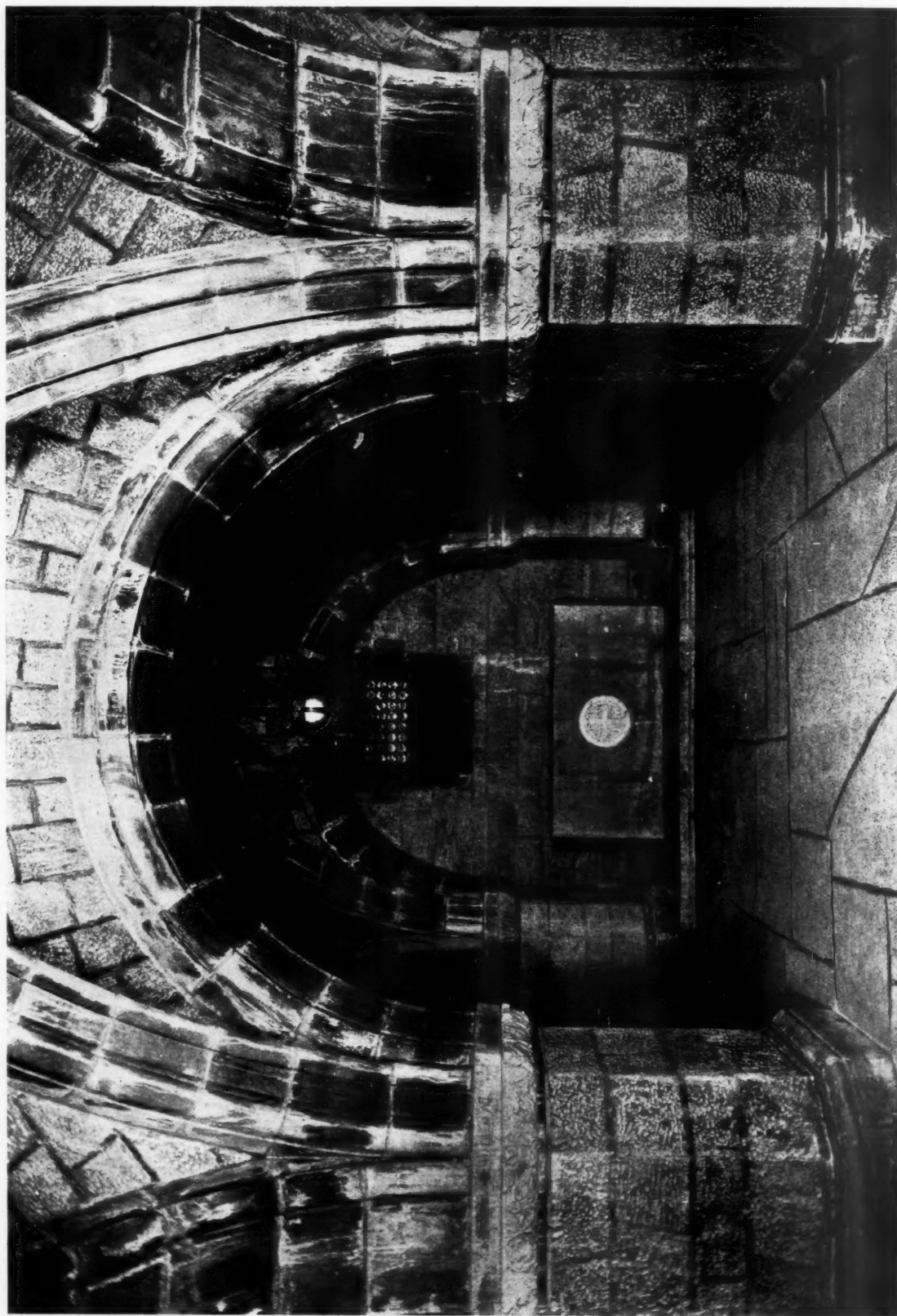
DETAIL OF REREDOS

LADY CHAPEL, CHAPEL OF THE INTERCESSION, NEW YORK

MESSRS. CRAM, GOODHUE & FERGUSON (New York Office), ARCHITECTS

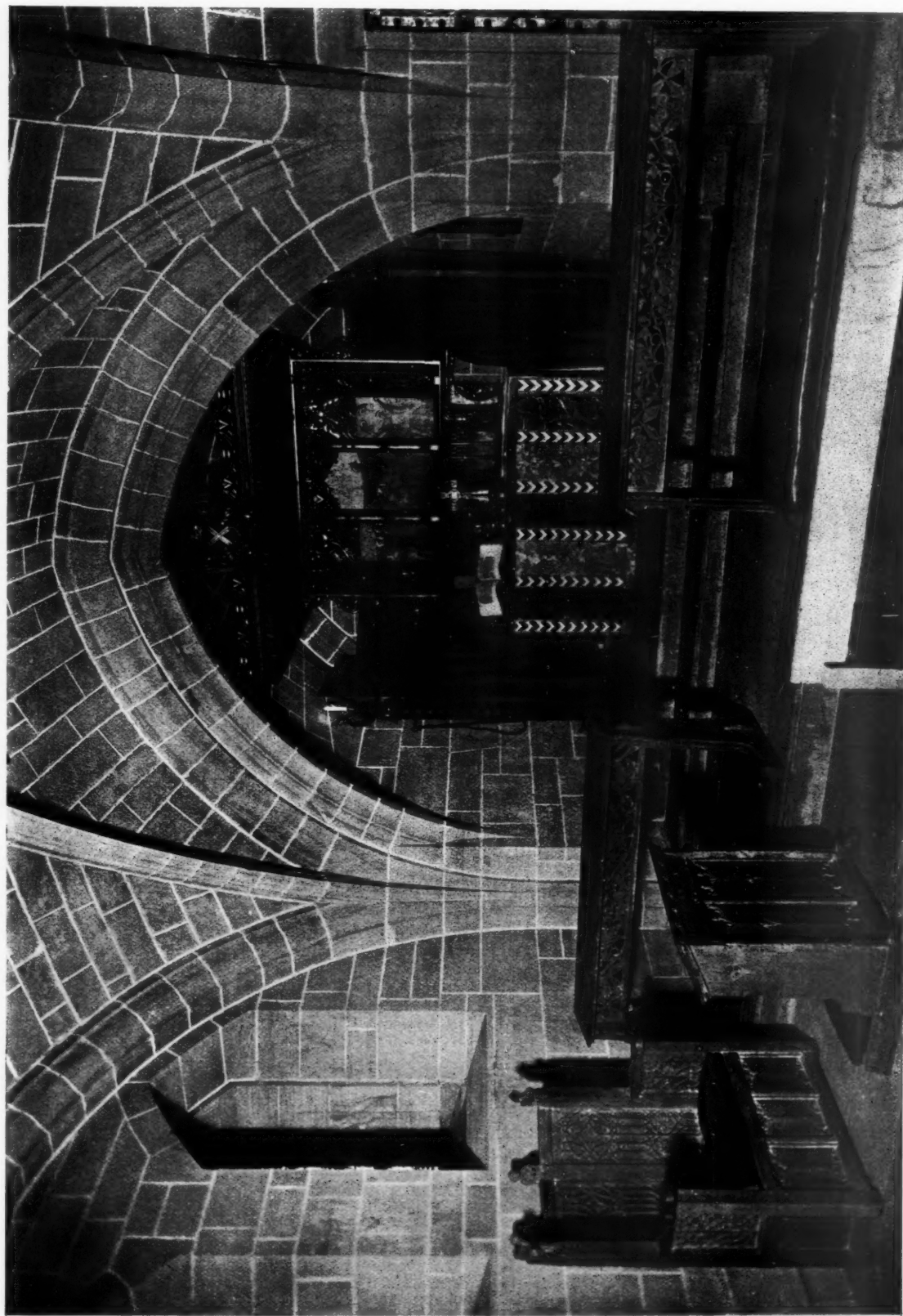




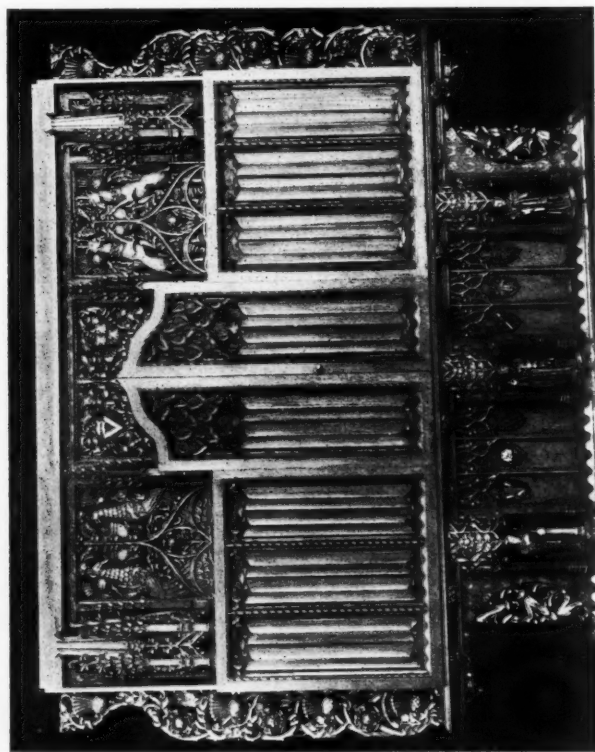
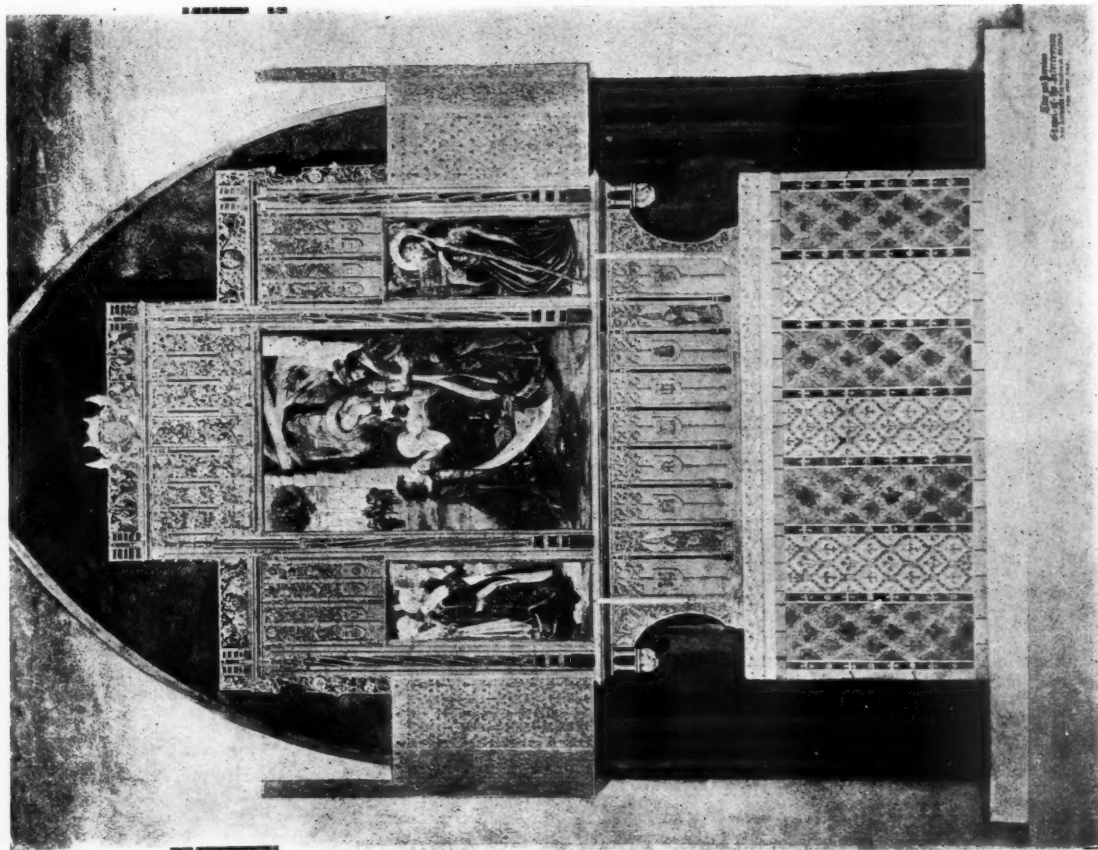


ALTAR IN CRYPT, CHAPEL OF U. S. MILITARY ACADEMY, WEST POINT, N. Y.

MESSRS. GRAM, GOODHUE & FERGUSON (New York Office), ARCHITECTS



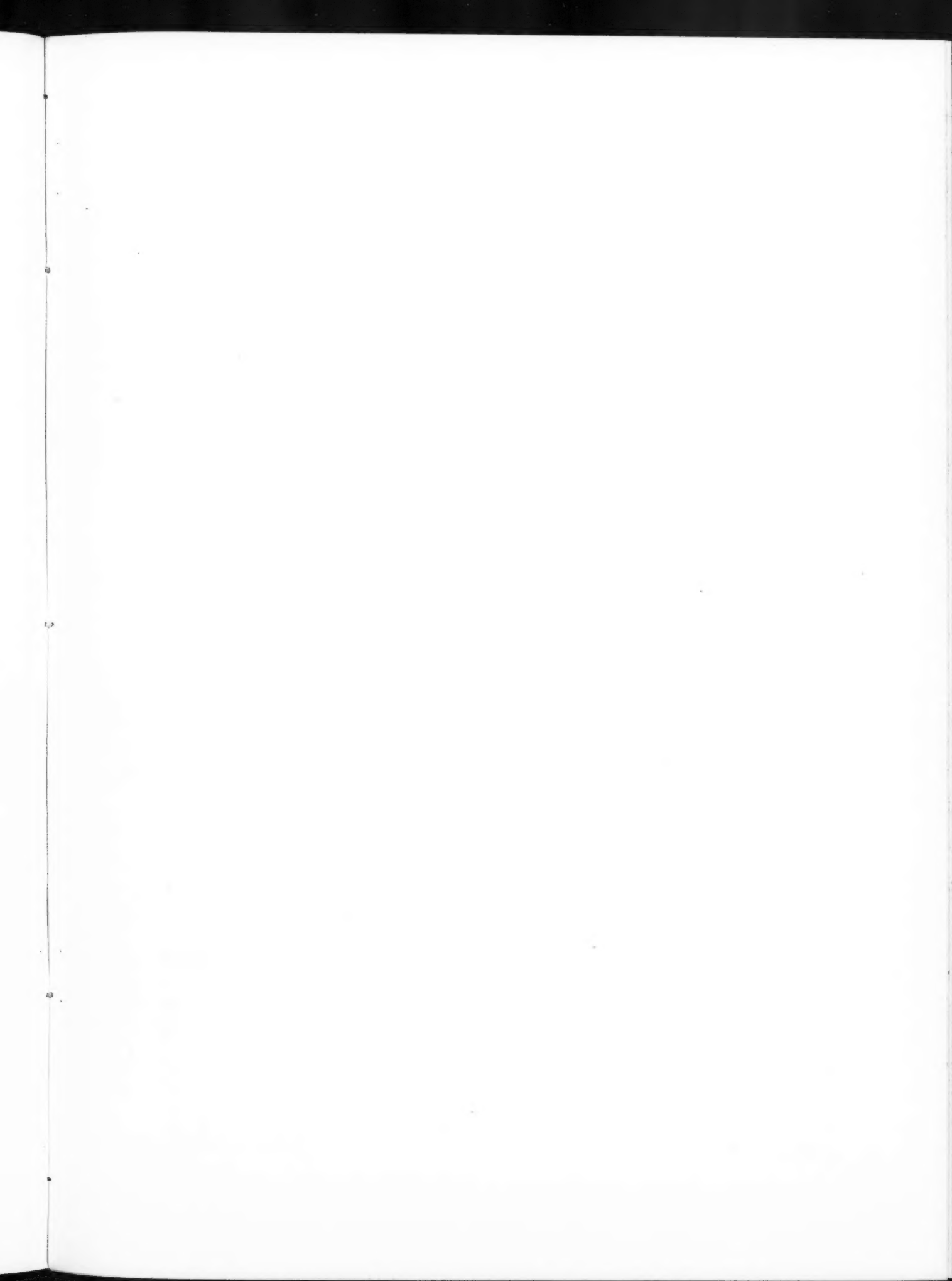
ALTAR, ST. ANDREW'S CHAPEL, CHICAGO, ILL.
MESSRS. GRAM, GOODHUE & FERGUSON (New York Office), ARCHITECTS



ABOVE: DETAIL (WITH DOORS CLOSED), REREDOS,
ST. ANDREW'S CHAPEL

AT LEFT: SKETCH FOR THE LADY CHAPEL REREDOS,
CHAPEL OF THE INTERCESSION

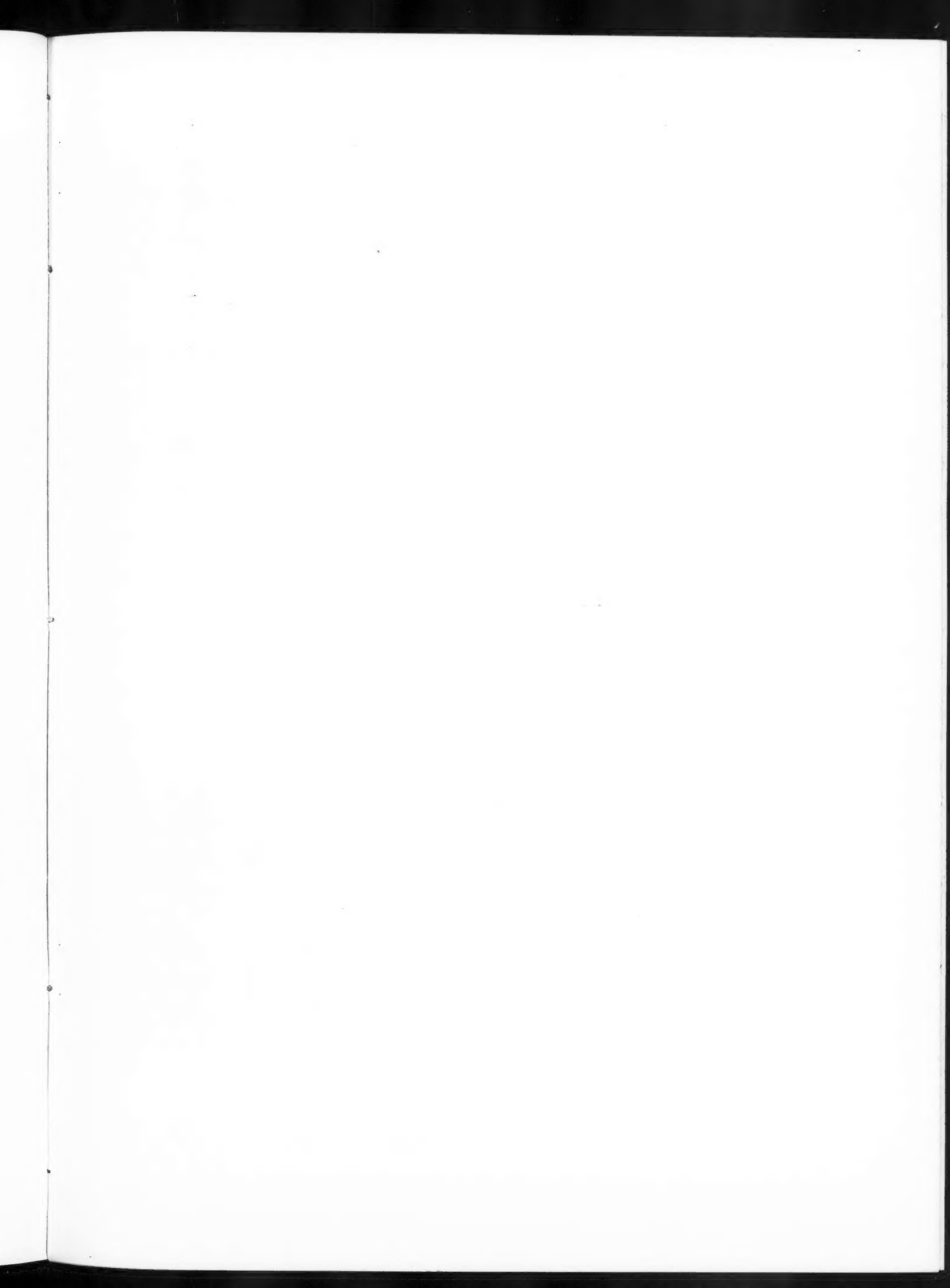
MR. BERTRAM GROSVENOR GOODHUE, ARCHITECT





ALTAR, TRINITY CHAPEL, BUFFALO, N. Y.

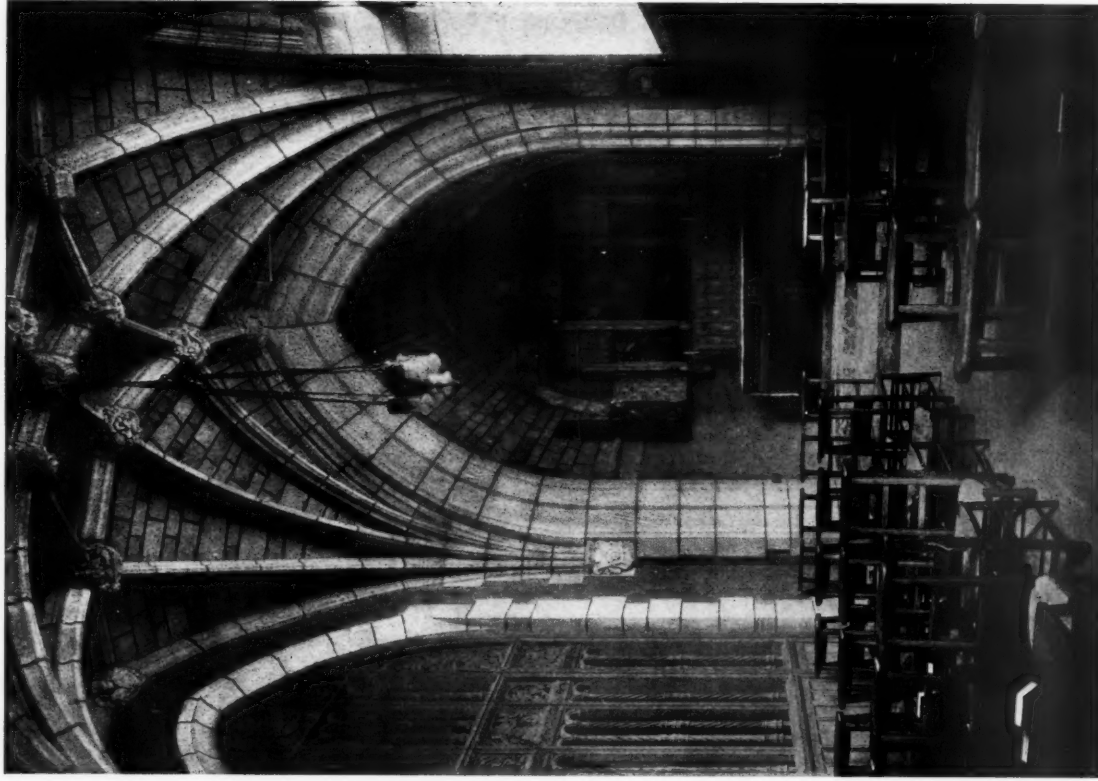
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CHAPEL OF THE UNITED STATES MILITARY ACADEMY,
WEST POINT, N. Y.

MESSRS. CRAM, GOODHUE & FERGUSON (New York Office), ARCHITECTS



LADY CHAPEL, CHAPEL OF THE INTERCESSION,
NEW YORK

MESSRS. CRAM, GOODHUE & FERGUSON (New York Office), ARCHITECTS

NEW YORK

WEST POINT, N. Y.

MESSES. CREAM, GOODHUE & FERGUSON (New York Office), ARCHITECTS



ALTAR, ST. LUKE'S CHURCH, NEW YORK

MR. BERTRAM GROSVENOR GOODHUE, ARCHITECT



REREDOS FOR A CHURCH AT FALL RIVER, MASS.

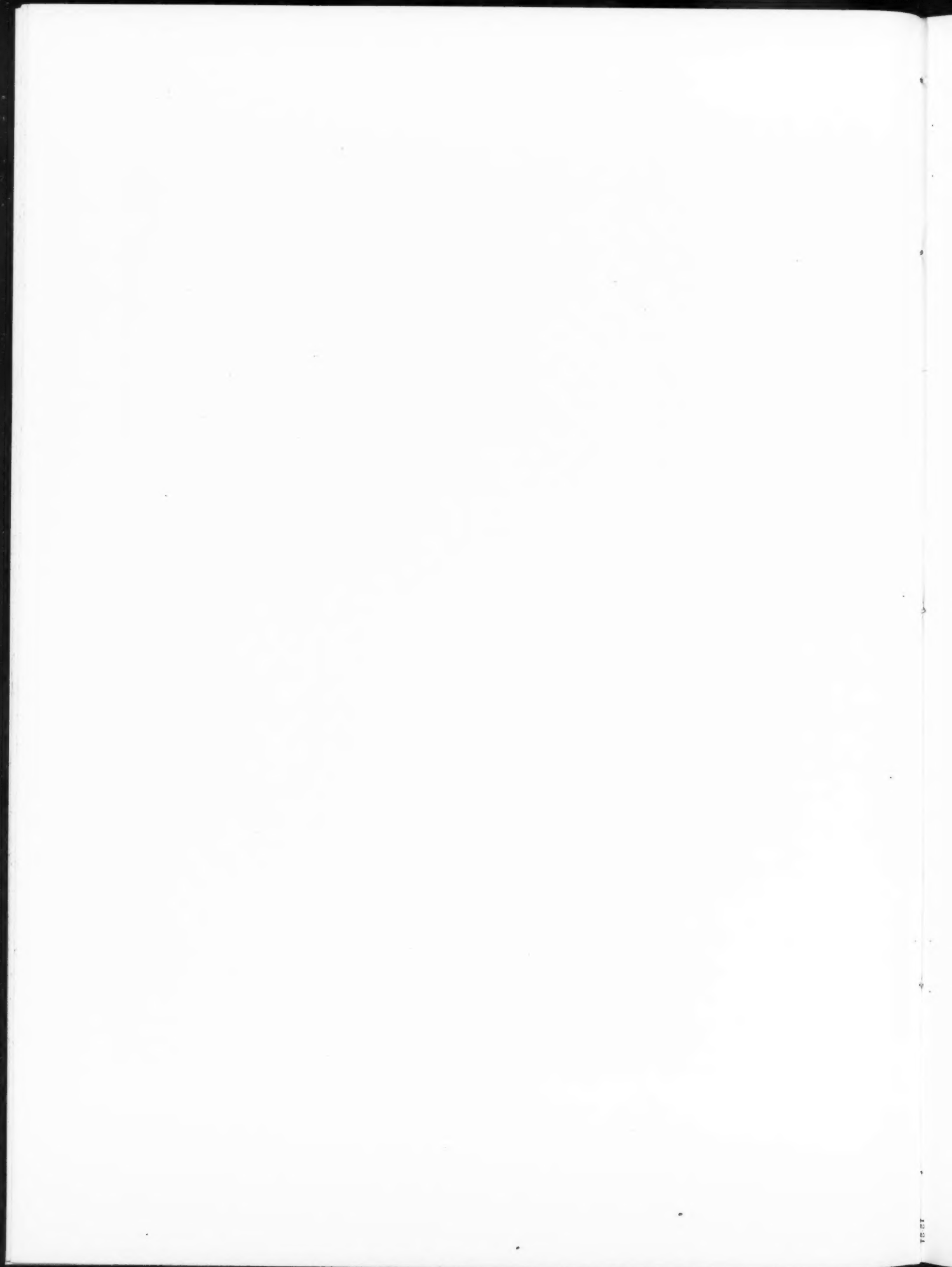
MESSRS. CRAM, GOODHUE & FERGUSON (New York Office), ARCHITECTS



DESIGN PLACED SECOND—MR. ROBERT AITKEN, *SCULPTOR*

COMPETITION FOR FIGURE TO SURMOUNT FULTON STREET TOWER,
NEW WESTERN UNION BUILDING, NEW YORK CITY

MR WILLIAM WELLES BOSWORTH, *ARCHITECT*





SMALL SCALE MODEL SHOWING
UPPER STORIES OF BUILDING.

SCULPTOR'S DESCRIPTION

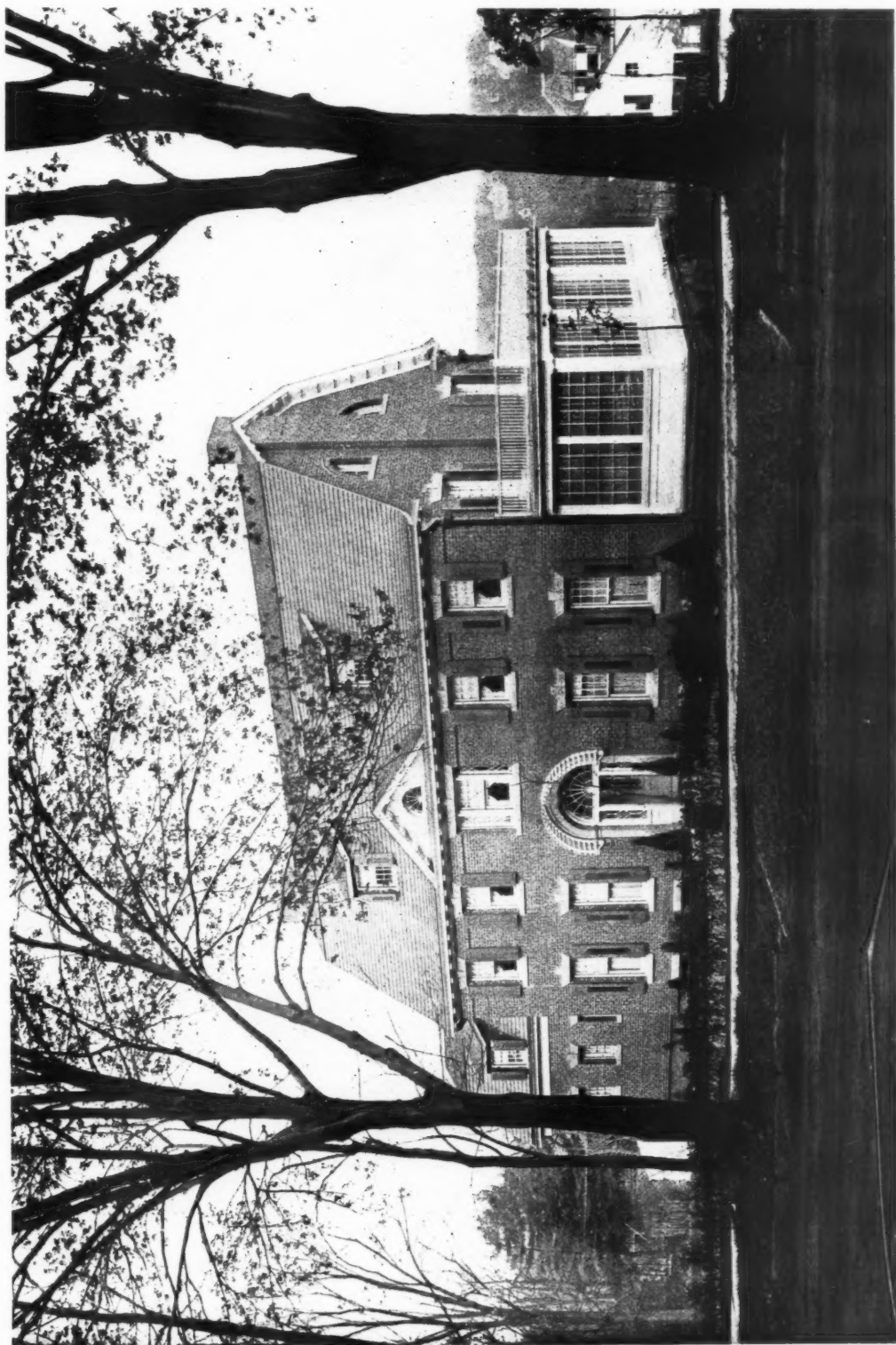
THE GENIUS OF TELEGRAPHY IS REPRESENTED BY A POWERFUL MALE WINGED FIGURE, GRASPING IN ONE HAND THE ELECTRICITY WRESTED FROM THE ELEMENTS, WHILE FROM THE OTHER, THIS POWER FLOWS IN THE FORM OF CABLES WHICH SWEEP ABOUT HIS BODY AND DOWN TO ENCIRCLE THE GLOBE UPON WHICH HE STANDS.

DESIGN PLACED FIRST

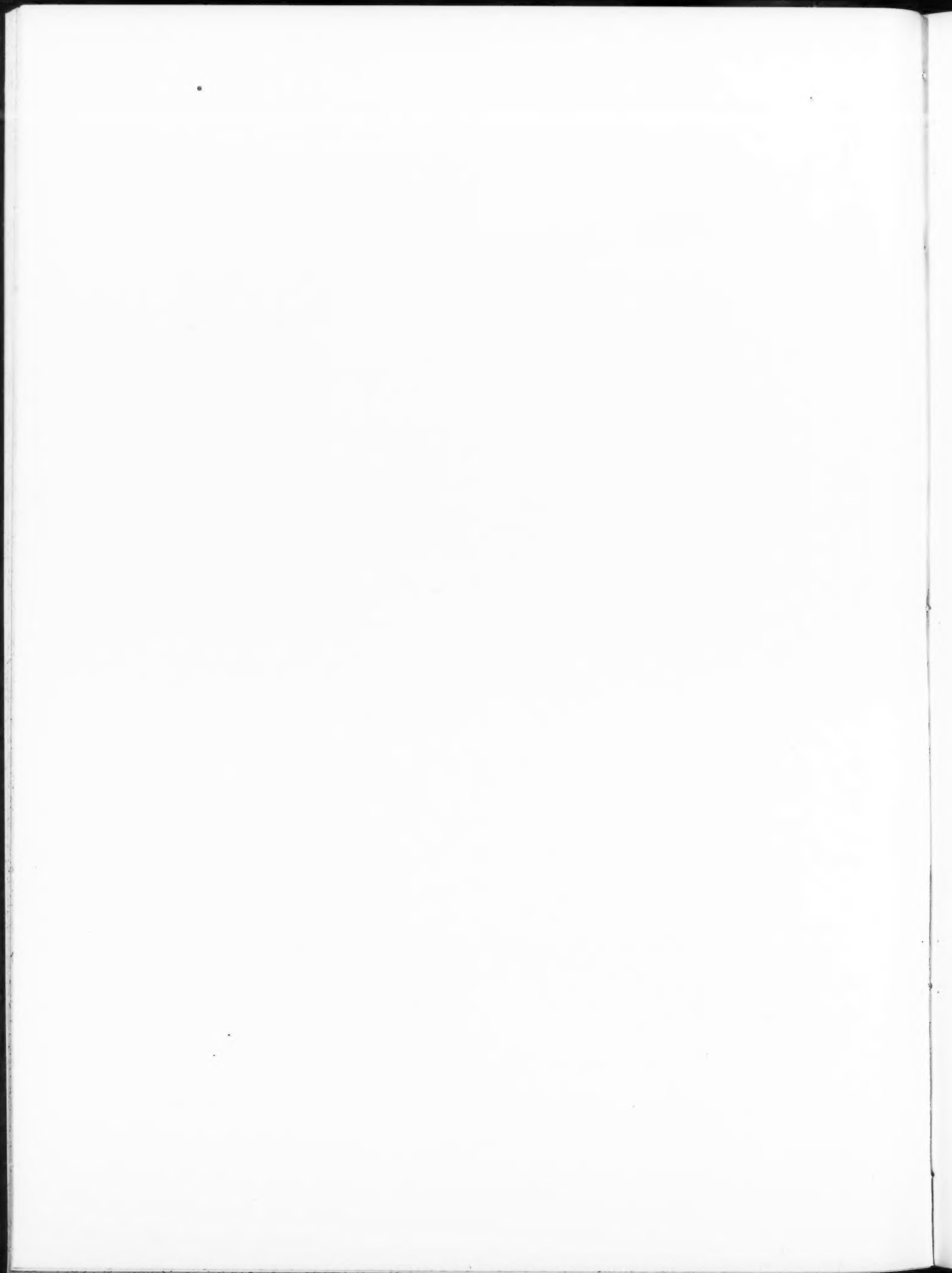
EVELYN BEATRICE LONGMAN,
SCULPTOR

COMPETITION FOR FIGURE TO SURMOUNT THE FULTON STREET TOWER—
THE NEW WESTERN UNION BUILDING, NEW YORK

MR. WILLIAM WELLES BOSWORTH, ARCHITECT

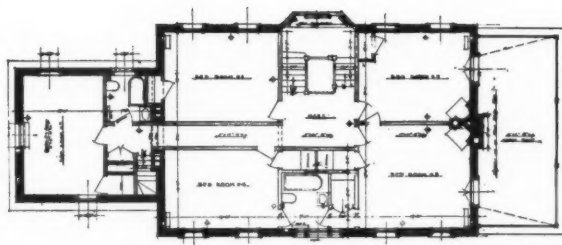


HOUSE OF MRS. N. V. L'HOMMEDIEU, SOUTH ORANGE, N. J.
MESSRS. DILLON, McLELLAN & BEADEL, ARCHITECTS



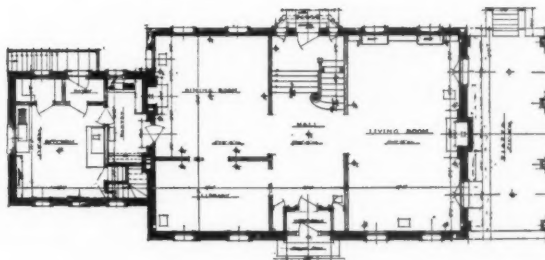


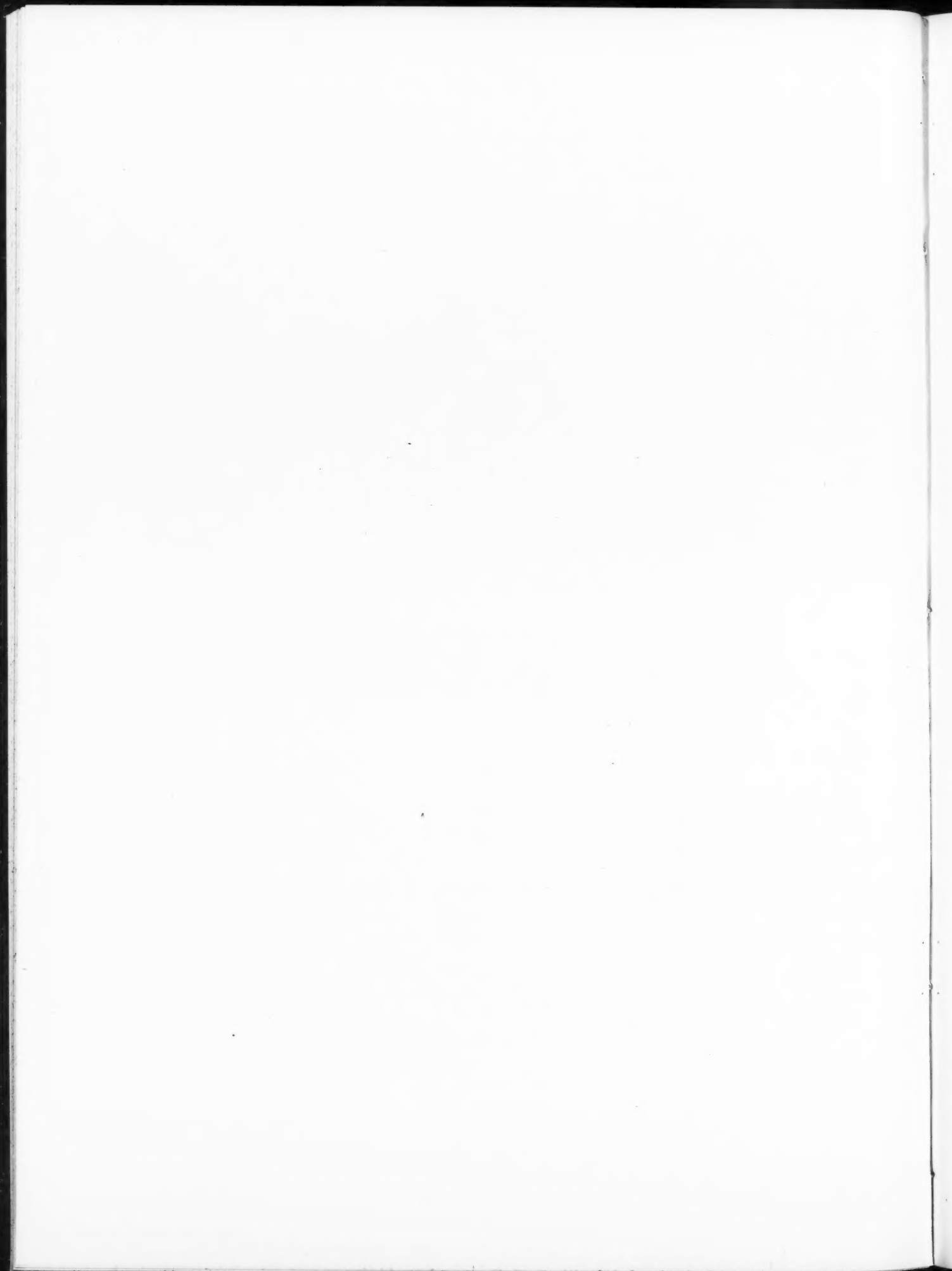
REAR VIEW

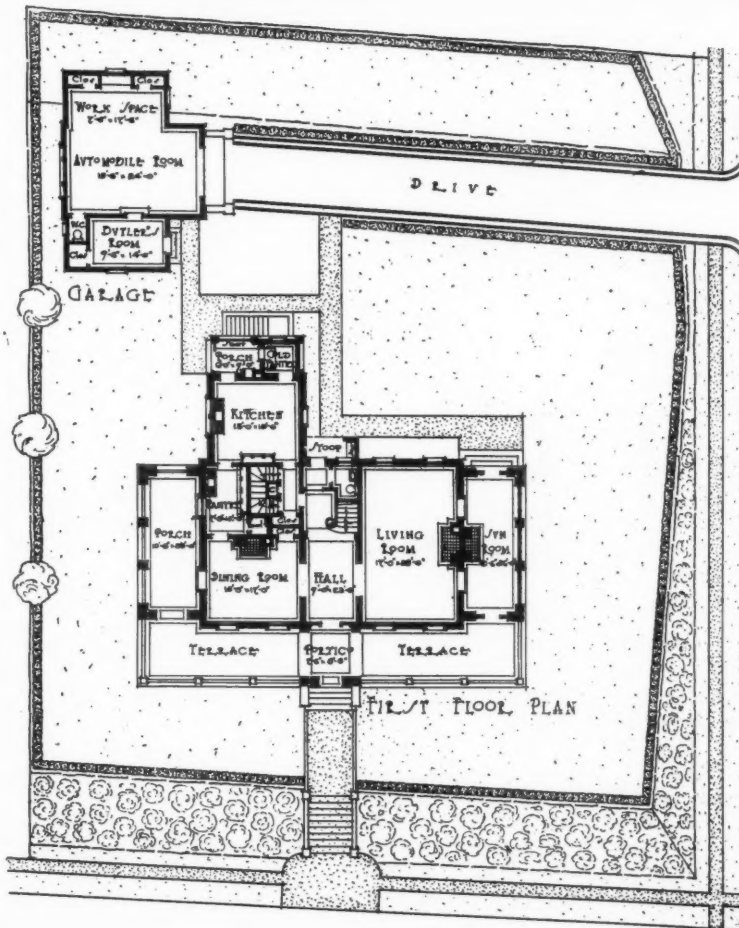


HOUSE OF
MRS. N. V. L'HOMMEDIEU,
SOUTH ORANGE, N. J.

MESSRS. DILLON, McLELLAN & BEADEL,
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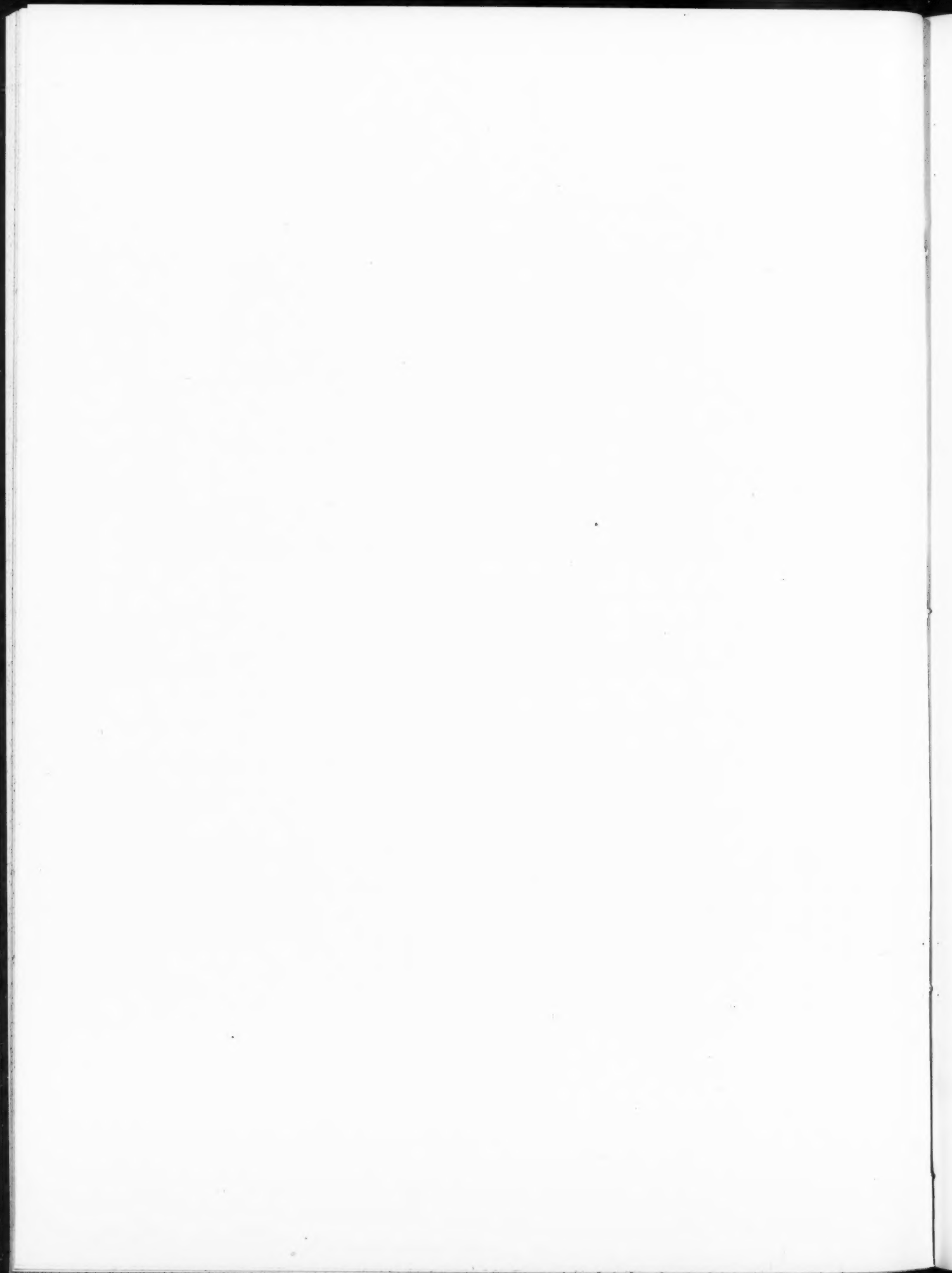






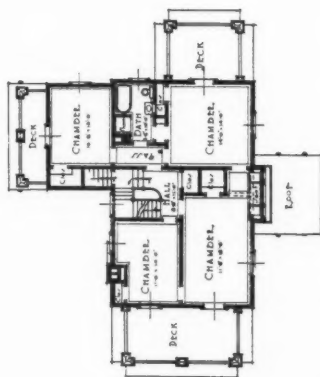
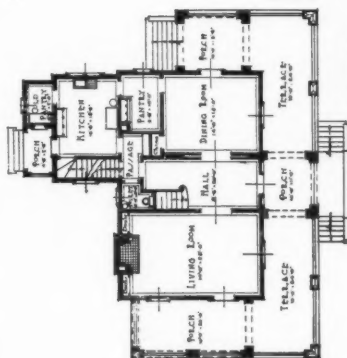
HOUSE OF
MRS. IDA S. DOHME,
ROLAND PARK, MD.

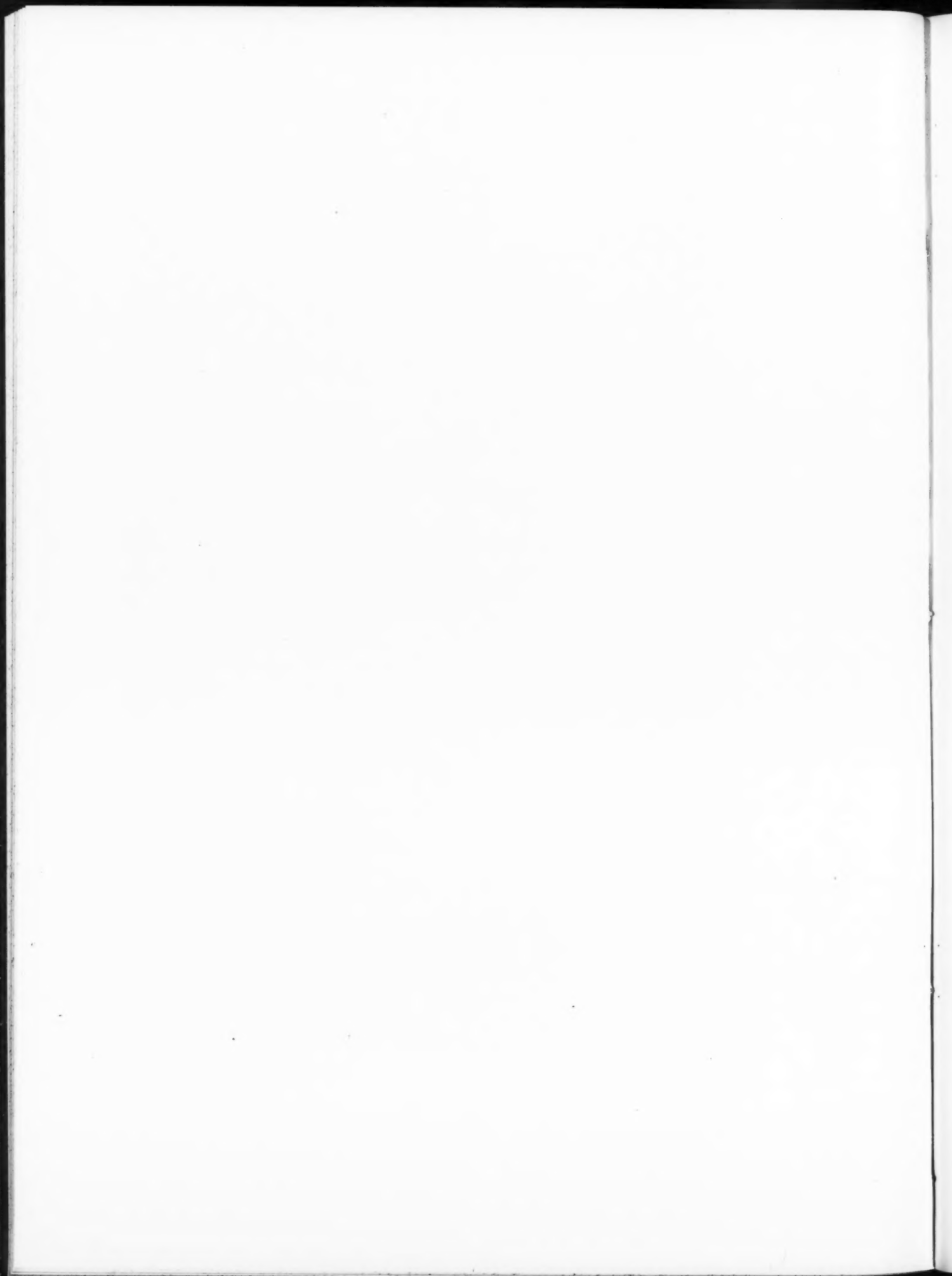
MR. WALTER M. GIESKE,
ARCHITECT

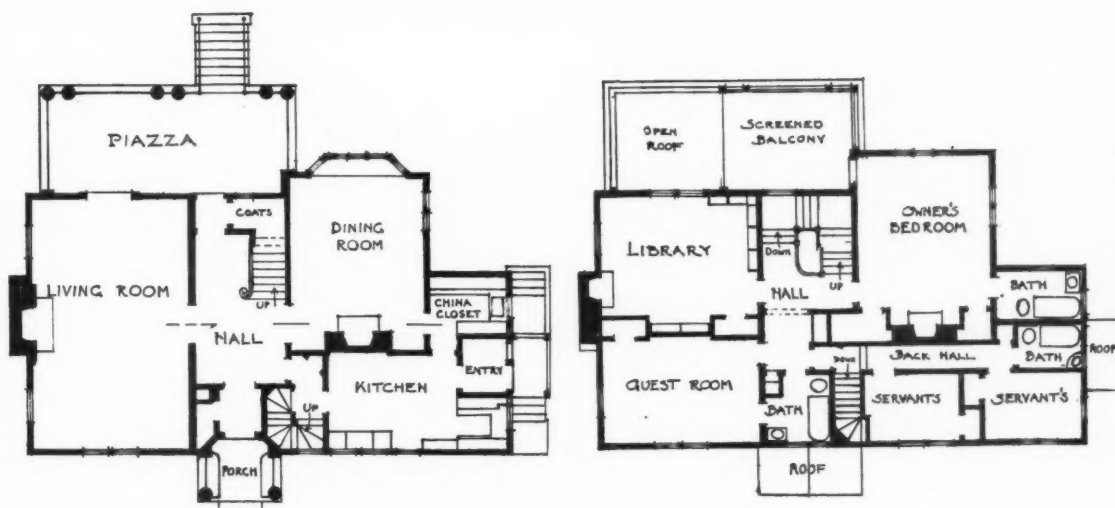


HOUSE OF WALTER D. WHITE, ESQ., TEN HILLS, MD.

MR. WALTER M. GIESKE, ARCHITECT

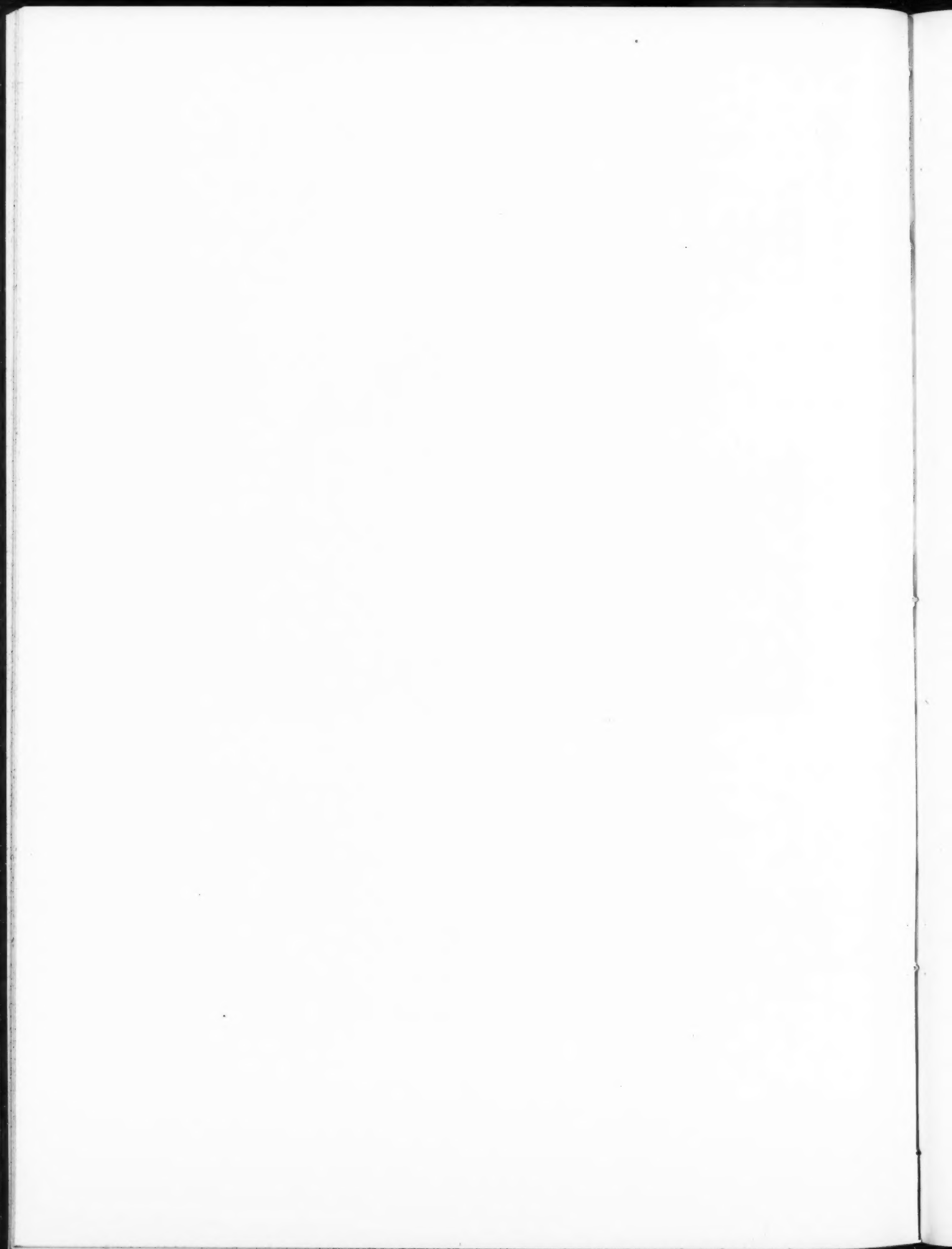






HOUSE OF CHARLES G. SMITH, ESQ., BROOKLINE, MASS.

MR. BENJAMIN PROCTOR, ARCHITECT



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VOL. CVI SEPTEMBER 2, 1914 No. 2019

SALEM'S NEGLECT OF THE OPPORTUNITY TO REBUILD A BETTER CITY

Before the embers had cooled from the fire which devastated a large area of Salem, Mass., on June 25th, public protest against the conditions which made the disaster possible was so unanimous that an effective reform in building methods seemed inevitable. In fact, it has been said that the passage by the Massachusetts Legislature of the Fire Hazards Bill which raises the protective standard in Boston as well as in many of the surrounding towns and others that choose to come under the act, was made possible by the Salem fire. In Providence, too, a new light on local building conditions seems to have been shed by her neighbor's misfortune.

Subsequent developments in Salem itself have been of peculiar interest. The authorities charged with directing the rebuilding of the city appear to have been inspired originally by ideals worthy of New England and to have bent every effort toward the formulation of a new city plan and building code that would assure a more healthful growth in the future than the city had experienced in the past. Efforts were made to prevent commercial buildings from being erected in certain residential districts, and

on historic Lafayette Street it was proposed to improve appearances and reduce fire hazards by establishing the building line ten feet from the street line.

But, having all of these improvements in mind, the principal endeavor of the authorities has been to make a repetition of the disastrous fire impossible, and with this intent have advised non-combustible construction for factories, the installation of automatic sprinkler systems in some cases and certain restrictions as to wooden three-decker flat-houses. The committee solicited, and received, many building models, samples of materials and estimates of cost intended to be of actual assistance to prospective builders and to demonstrate that the merits of non-combustible construction more than warrant its slight increase in cost over that which is inflammable and usually deteriorates rapidly when exposed to the elements.

So far, however, the efforts of the more enlightened part of the Salem community have met with only partial success. Some manufacturers have indicated a willingness to install automatic sprinkler systems, and to use a non-combustible roof covering, but most of them, according to reports, rebel at the suggestion that only non-inflammable construction be employed. Instead, they propose the use of "slow-burning" construction.

A local paper in commenting on the situation, says: "The impracticability of demanding brick or concrete leather factories has finally been driven home to the commissioners as they saw firm after firm leaving the city and they now permit mill construction in slow-burning buildings. . . . Probably these concessions to public demand will assist in the speedy rebuilding of the city, but in the meantime a number of concerns have bought or leased plants elsewhere."

No doubt the towns to which these few manufacturers are said to have removed their plants will not widely advertise their commercial advantages, for they cannot be proud of the comparatively low standards which have attracted the new industries. It is more than likely, too, that the manufacturers will eventually discover their dual mistake—first, in assuming that "cheap construction" is really economical, second, in courting the fire hazards of communities that

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are exceedingly lax in the requirements of their building laws.

The Salem building commissioners have evidently effected some reforms and doubtless would have assured the future safety of the city had a certain interested public opinion permitted. It is inaccurate to say that lessons of the fire have been forgotten—they have not even been learned by those who, in a city, willingly tolerate wooden three-deckers and inflammable factories, claiming it “foolishness to act on the supposition that such a conflagration as that of June 25th is any common occurrence or liable to occur again in a century.”

In the face of such unenlightened sentiment it must be presumed that a building code at all adequate would fail by reason of lack of public support. Perhaps more nearly ideal conditions will be possible and practicable when future conflagrations, there or elsewhere, have proven conclusively the folly, almost amounting to crime, of neglecting to profit fully by the opportunities for improvement that have been presented as a result of Salem's recent disastrous conflagration.

PRACTICAL CONSIDERATIONS BAR THE AMERICAN SKYSCRAPER FROM BERLIN

Regardless of internal differences of a political nature, the peoples of Europe are rising with apparent unanimity to prevent the invasion of their cities by the American skyscraper. A few months ago the City Council of Naples prohibited the erection of a high building, asserting, it is reported, that it was “unbeautiful, unpleasant and unsafe—suitable only to the extravagant and absurd ideas of Americans.”

The most recent repulse—based, however, on merely practical considerations and lacking any suggestion of personalities—is

in Berlin. As reported, it was planned to erect opposite the Friedrichstrasse Bahnhof a building which, with a superimposed tower, would have attained the dizzy height of ten stories. The police, however, informed the owners of the property that nothing so monumental could be permitted. Their objections were based on the assertion that the light and air of the adjacent streets and buildings would be seriously impaired and that the apparatus of the Berlin fire department could not cope with a blaze higher than five stories. The local water works also entered a protest, stating that it could not guarantee to supply water for the top stories of such a building.

To us in America the objections of the fire and water departments seem somewhat puerile, for in our own great buildings the mechanical limitations of public departments are readily overcome by private enterprise. This is necessary if abnormally high structures are to be erected, for it would be obviously unfair to expect the city to readjust its entire service equipment to take care of the buildings, comparatively few even in New York, which exceed six stories in height. We must remember, however, that in Germany and most other European countries paternalism is the order of the day and private initiative, in matters generally recognized to be the duty of the state, is discouraged.

While fully persuaded that with us the skyscraper is often an economic necessity, there may be something for us to consider in Berlin's assertion that even in her broad streets a building of ten stories would seriously lessen the light and air of adjacent buildings. Surely this is a wise and praiseworthy attitude to assume in a country so congested that, although its area is not much larger than that of Texas, has a population about two-thirds that of the entire United States.

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Chancels, Their Arrangement and Furniture

(Continued from page 136)

The altar slab or "mensa" alone is consecrated and on the upper surface of this is cut five Greek crosses, one in the center and one on each corner. According to the Roman rite these crosses must have been anointed by the Bishop with chrism in the ritual of consecration before the altar can be used. "In the consecration of altars," said the late Father Morris, when writing to the Antiquary in 1890, "a little fire is made on each of the crosses. Five pieces of incense are put on each cross, and on the lumps of incense a cross is made of thin wax taper, which is lighted at the four ends. When the fire is burned out, the ashes are scraped away with a wooden spatula, but, as the cross is incised, the melted incense runs into it and remains there, as the scraping is only flush with the surface." "The five crosses seem, however, to have been cut in the slab whether the ceremony of formal consecration was carried out or not. Most of the known early examples bear only one or more crosses in the front of the mensa."

The altars at West Point and at West Haven are the only ones having a gradine. In America we are rather careless in such matters. In the Roman use, they are allowed both by custom and law; but in the Church of England "gradines and shelves cannot be included among the ornaments covered by the rubric. They seem never to have been in use anywhere until the sixteenth century; and undoubtedly the custom was for the two candlesticks to be placed on the altar itself." Surely nothing could be worse than a flight of steps back of the altar littered with flowers and candles.

The tabernacle used for rose-water should stand wholly detached and should be affixed to

the mensa, not inserted in the gradine or let into the reredos. It should be completely veiled—like a "little tent," the color of the veils corresponding to that of the vestments, black excepted. This is the Roman law.

If the top of the altar projects 2', it gives room below for the feet of the celebrant. Where possible, it is a great convenience to have a passage directly back of the altar. At the Chapel of the Intercession this is 3' 0" wide.

In the beginning altars were not elevated on steps, but were built flat on the pavement. In the fourth century they were raised one step above the sanctuary floor. It has become the custom, for symbolic reasons, to have an odd number of steps, usually three. Many steps leading up to the altar platform are almost always a mistake. It is a question whether in a small



ALTAR IN CHAPEL OF U. S. MILITARY ACADEMY

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chancel one step is not best in any case. Trinity Chapel, Buffalo; Grace Church Chantry, New York; and St. Paul's, Duluth, have each but one step. St. Andrew's Chapel, Chicago, has two; and the other examples given have each three steps. These steps should never be more than 6" high. St. Andrew's Chapel and St. Paul's, Duluth, are only 5"; all of the others being 6".

The first step, the foot pace, should be at least 30" wide. At the Chapel of the Intercession, it is 3' 4"; while at St. Andrew's Chapel it is 4' 0", which is the ideal.

In our examples the deacon's and sub-deacon's steps vary from 12" to 18" in width. Where space permits it is an advantage to have these wider, at least two feet, so as not to crowd the ministers serving mass; and in order to produce a better effect.

In the Communion Table for the First Baptist Church of Pittsburgh, Mr. Goodhue has gone back for his inspiration to the early open table altars in use up to the fifteenth century. The result is an unusual solution of the problem. Unfortunately the photograph shows the table turned around.

In St. Luke's—a Romanesque church—the ciborium has been restored with very good effect, nearly all of the old metal dome being retained, giving just the dominant note to the altar that its position requires. Of course, rich brocade curtains will take the place of the plain cream hangings of the photograph.

Quite the most conventional of Mr. Goodhue's reredoses is the one designed for St. Paul's Church, Brooklyn, some seven years ago. It has the usual row of canopied Saints in an interesting setting of delicate stone work.

Much more rich and architectural is that for Christ Church, West Haven. The strong decorative border of conventionalized grape vine holds the composition firmly together. The paintings are good copies of Van Eyck's Altarpiece at Ghent. The carving is everywhere picked out in gold with a little color added; and the whole is extremely effective.

To this type belongs the one for St. Paul's, New Haven, as yet in existence on paper only. Here the same use has been made of the conventionalized grape vine;

but the composition is much richer and doors have been added.

Much freer is the treatment of that for Trinity Chapel, Buffalo. Here the problem was complicated by an ugly altar with very bad east windows which had to be kept. The altar will be draped. Up over the window runs the delicate canopied tracery, obscuring the worst of the glass. The extraordinary character and vitality of the figure carving here shows that we have craftsmen capable of carrying on the "great tradition." Taber Sears, the painter of the panels also caught the Gothic Spirit; not that these are period paintings by any means; but the rich brocades and color bring them into harmony with their setting. Upon the woodwork very little color is used here.

While it is in no sense archaeological, a suggestion of Buffalo might be found in late German work, but St. Andrew's Chapel, Chicago, is a still greater departure from tradition. More splendid in gold and color than any of his previous work its ornament has almost a Celtic richness. A feature unique in this country is the tester that spreads out over the altar and predella. The pictures painted by Mrs. Traquair of Edinburgh, inspired apparently by the extremely rare English "primitives," are highly conventionalized both in color and drawing and admirably fit their setting. They are very small. But the conception is so broad and so deeply reverent is their feeling that the whole is a most successful piece of religious art.

The reredos—perhaps one should call these smaller ones triptychs—for the Lady Chapel of the Chapel of the Intercession is more architectural in its lines. The ornament is exquisitely delicate and free; but it is confined in simple masses and is treated as more of a frame for the painting. To get the soft lustrous color wished, this was done entirely in burnished gold, to which the color was applied. It is toned down quite low, so that it melts back into the shadow of its sanctuary. The groined vault, the richly carved screens, the hanging lamps of silver and this triptych make this chapel a very perfect jewel.

Quite the most interesting is the new altar for the Chapel of the Intercession, which in many particulars is unique. For this the

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Vicar has collected many historically interesting relics. These will be set into the front of the altar and held in place by a golden vine—a kind of “tree of Jesse”—all on a black ground. The altar itself is of marble. The predella and step are of alternate bands of yellow Sienna and Alps green marble. There is no gradine, the ornaments standing directly on the mensa, following the early custom.

Behind is a splendid dossal of specially woven brocade, set in a richly carved and gilded frame. Crowning all is the testa, covering both priest and altar. The sides of the altar are enclosed by riddles, harmonizing with the dossal, supported by the riddle posts surmounted by gilded angels bearing tapers. In its beautiful setting, this is probably the most splendid altar in America today.

Comino Wood from Colombia

THE tree called comino in Colombia, South America, yields an excellent timber for the use of the cabinet makers and possesses some excellent qualities, not only for high-class furniture, but for building purposes as well. Two kinds are generally recognized in the markets, the plain or straight-grained, and the curly-grained. The straight-grained kind, commonly referred to as “comino liso” is very much appreciated for house-building, its merit being that it is perfect proof against all wood destroying insects so common in all tropical countries. It is a well-known fact that almost all kinds of timber used for building purposes in the tropics are sooner or later destroyed by insects called “comejen” or white ants. A house built of timber subject to the destructive work of these ants is usually sold for considerably less than one built of comino timber, which will stand for many years and will not be affected by either insects, water, soil, or climate.

The other kind of comino wood having the same properties as the one above referred to is the “comino crespo,” which commands a very high price and is used mostly for veneering purposes. It is of a beautiful dark and light undulating color of a yellowish tortoise-shell appearance. High-class furniture veneered with comino crespo presents a magnificent appearance, always

bringing a high price if well worked and properly finished. Comino is the native name of a tree which is botanically called *Aniba perutilis*. Comino crespo and comino liso are obtained from the same species, only in the one the wood is curly, which is what *crispo* signifies, and in the other the wood is plain. A similar difference occurs in the grade of mahogany known as “baywood,” which is a soft, more or less coarse-grained wood growing in moist, rich soils of Honduras and Mexico, and the figured mahogany growing in rocky soils in the same countries and in San Domingo and Cuba. Laurel comino is a name that is sometimes applied to this tree, but this term is also given to two other closely allied species.

The comino tree grows naturally in the Department of Antioquia, Colombia, but it serves also as a beautiful tree for ornamental planting. It can be cultivated successfully at a temperature of from 18 to 20 degrees C. If this beautiful tree could be cultivated and acclimated in the United States it would be a great and important acquisition to the American wood users. The trees attain considerable dimensions. It has been reported that one fully developed specimen of comino often yields four hundred pieces, as follows: Two hundred boards 9 feet long, 10 inches wide, by 1 inch thick, and two hundred girders 9 feet long, 4 inches wide, by 2 inches thick.

Old Furniture

Renaissance art made a great change in architecture and this change was exemplified in furniture. Examples of 16th century chests, cabinets, tables, seats, sideboards, etc., can be seen in museums and in many private houses. *Pietra dura*, or inlay of hard pebbles, agate, lapis lazuli, and other stones, ivory carved and inlaid, carved and gilt wood, marquetry or veneering with thin woods, tortoise shell, brass, etc., were used in making sumptuous furniture during the first period of the Renaissance. Subjects of carving or relief were generally drawn from theological or cardinal virtues, from classical mythology, from the seasons and months, etc. The elegance of form and perfection of detail, which are noticeable in the furniture of the 16th century, declined during the 17th all over Europe. The framework became bulky and heavy and the detail coarse. To this period belongs the name of Andre Charles Boule, who furnished the palace of Versailles. He invented or perfected a beautiful system of veneering with brass and tortoise shell, brass and ebony, occasionally using white metal besides.

The system of veneering, or coating common wood with slices of rare and costly woods, fastened down by glue with screw presses made to fit the surface to be covered, came into general use in the 18th century. Marquetry is veneer of different woods, forming a mosaic of pictorial or ornamental designs. In Italy, in Spain, and throughout the dominions of Charles V and his successors, figure subjects, architectural views, and quaint interiors were represented in these materials. Usually two or three woods were employed; they were tinted by means of heated sand in iron frames, and the tints graduated to the utmost nicety. Sometimes these effects were produced by splitting and laying slices of the same wood with the grain running in different directions. The fine marquetry of the last century was made of tulip-wood or mahogany, with lime, pear, holly, beech and other light-colored woods; sometimes in ebony and ivory, in Italy particularly; or ebony and mother-of-pearl, the latter in Holland.

Looking-glasses in large sheets began to be exported from Venice at the end of the 17th century. The manufacture was estab-

lished at Tourlerville, then in Paris, and about the same time at Battersea on the Thames—under government protection in both countries.

Robert Martin, who used fine lac polish, gave the name of "Vernis Martin" to painted and polished furniture of all kinds, from carriages and wardrobes to fans and snuffboxes. He died in 1763. The discovery of Herculaneum and Pompeii turned attention to the elegant designs of the Greco-Roman period. Riesener, David Roentgen (known as David) and the ciseleur Gouthiere are well-known names of French cabinet-makers. Chippendale, Lock, Sheraton and Heppelwhite were Englishmen of the same period—the last half of the 18th century. James and Robert Adam designed beautiful satinwood and other furniture at that date. Medallions of porcelain were sometimes inlaid in cabinet fronts. Most of these manufactures came to an end during the French Revolution and the long war. The Empire style, a stiff, affected classicalism, prevailed in France during the reign of Napoleon. It is shown in the metal mounts of veneered mahogany furniture, and in the carving of chair legs and backs.

The best of modern furniture is undoubtedly as good as the old, but is exceedingly expensive on account of the painstaking care that must be taken in its manufacture and finish.

A Catalogue of Architectural Books

The public library of the City of Boston has just issued the second edition of its catalogue of books, relating to architecture, construction and decoration, with an added section on city planning, prepared by Mr. Frank A. Bourne.

The scheme of classification has been perfected in such a manner that it is possible to find, without loss of time, the title of a particular work on any specific subject that may be desired.

The architectural library of the City of Boston is an extremely valuable collection, and so wide in its scope as to practically afford an unlimited opportunity for research and study.

ENGINEERING AND MECHANICAL DEPARTMENT

An Unusual Street Shelter

The great need for protection from the weather for those passing to and from street surface-cars at centers of heavy traffic has perhaps never been met more satisfactorily than by the Pittsburgh & Lake Erie R. R., at its terminal station in Pittsburgh, and the facilities it has recently provided for the accommodation of its patrons seem capable of adaptation by large stores, hotels and office buildings in co-operation with city authorities.

The station and general office building is located on Smithfield street at the south end of the bridge over the Monongahela River. Its relation to the street traffic and the shelter between street cars and station pro-

ing, but at the platform level, as shown.

The large majority of passengers do not pass through the waiting room, but use the covered way. From the end of this, the passengers may use the stairway to the street or pass through the subway to the east side of the street. The latter is the proper route for passengers taking northbound cars, as its use protects them from crossing at grade a street thickly congested by traffic.

The stand for taxicabs, automobiles and cabs is directly under the Smithfield street approach to the station, and passengers may reach this stand under cover. Signs are clearly displayed directing the route to be traveled at all points where there is a divergence of routes, so there need be no doubt

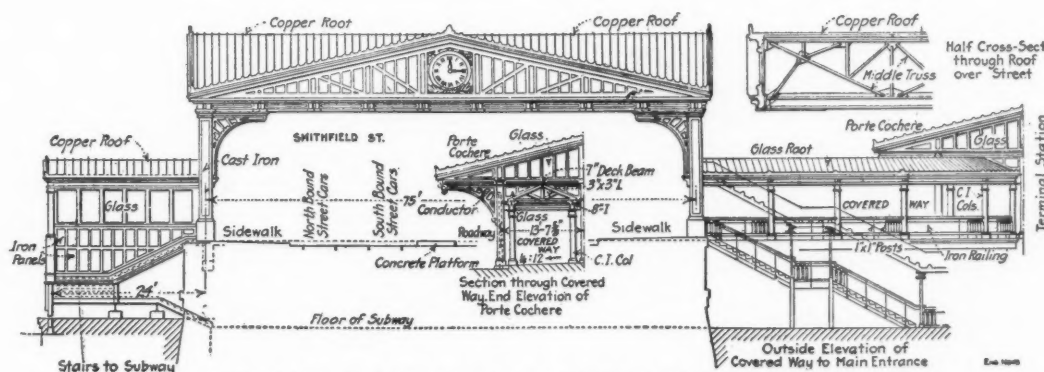


FIG. 1. SECTIONAL ELEVATION OF FACILITIES TO PASSENGER STATION

vided for arriving and departing passengers are shown in the accompanying photograph and plans. The waiting room, concourse and platforms are 16 feet below street level.

In a recent number of *Engineering News* Mr. R. P. Forsberg describes this unusual form of street shelter in part as follows:

Passengers arriving by train pass from the train shed into the concourse. From this they may pass through the waiting room to reach automobile, cab, street car or sidewalk, or they may go by a more direct route to these same points, under the protection of a covered way outside of the station build-

ing, but at the platform level, as shown.

Passengers arriving at the station to leave by train are afforded similar protection. If they arrive by street car, they alight under the protection of a roof 45 feet wide, spanning the entire width of Smithfield street. (Fig. 1.) These passengers should use the stairway on the east side of the street, leading down to the subway. From the west end of the subway they may go through the station, if they desire to purchase tickets, check baggage, etc., or, if all this has been arranged, they may go by the more

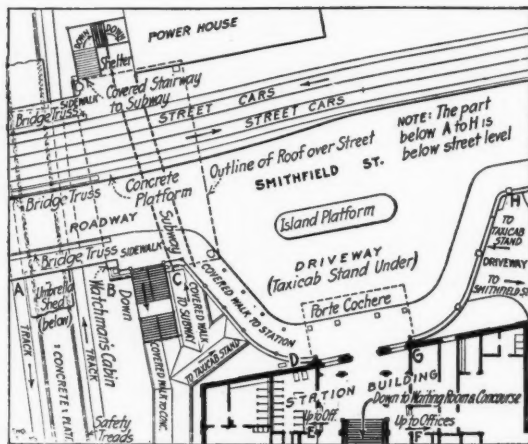


FIG. 2. PLAN OF STREET SHELTER, COVERED WAY AND SUBWAY

direct covered way to the main concourse.

Pedestrians from the north and parties alighting from the street cars who desire to reach the station by crossing Smithfield street at grade (a bad practice) may either use the covered stairway that leads to the covered way to the concourse, or if they desire to pass through the station they have a covered walk, at the street level, that leads to the main entrance. They may then go down the stairway to the general waiting room, or take elevators to the offices above. Passengers arriving by public or private conveyance alight in the cab stand and reach the concourse by either of the two routes previously described for travel between the train shed and cab stand, or alight under the

protection of a porte-cochere at the Smithfield street entrance to the station.

Fig. 1 shows an elevation and sections of the shelter spanning Smithfield street, the covered way leading to the station entrance, and the stairway to the platform and sub-

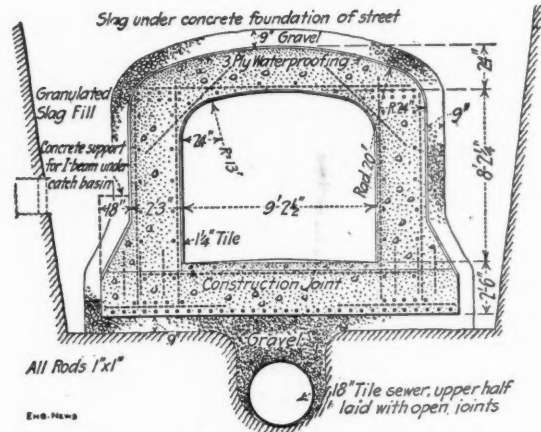


FIG. 3. CROSS SECTION OF PASSENGER SUBWAY

ways. Fig. 3 is a cross-section of the subway under Smithfield street. This subway is constructed of reinforced concrete, lined inside with white ceramic tile, with a dark ceramic-tile base and granolithic-concrete floor. It is well lighted by electric lights. The heavy reinforcing and the spread of the footings was made necessary on account of the unstable foundation upon which the subway is constructed. Up to the present time, no perceptible settlement has taken place, nor have any cracks developed.



CURRENT NEWS AND COMMENT

Increase In Building Activity

Figures that have been compiled showing the building activity in the leading cities of the country, according to the plans filed, are full of encouragement. The latest figures available are for the month of June, and while these show a slight falling off for the entire country as compared with the same period last year, there is a distinct gain in many sections and the improvement is marked over the records for the first six months of the year. In 22 cities of the country the plans filed in June this year called for an expenditure of \$64,800,000, compared with \$62,200,000 in the same month last year. And yet this total gain was less than that for the Eastern cities, which amounted to nearly \$3,000,000. The cities of the Eastern states called for an expenditure in June of \$32,525,391, compared with \$29,004,729, a gain of no less than 12 per cent. For the first six months of this year, the total was \$160,570,352, compared with \$166,097,092, a decrease of 3.2 per cent. This shows a complete reversal of trend.

The cities of the Middle West did not show such a large proportionate gain, although they indicate that building activity is distinctly improving.—*Stone*.

Personal

Mr. J. F. Deniff and Mr. A. P. Schulz, architects, have formed a copartnership for the practice of their profession and have opened offices at 314 Lafayette Avenue, Brooklyn, N. Y. They desire to receive manufacturers' samples and catalogues.

Mr. Rolland C. Buckley, architect, St. Cloud, Minn., announces his removal to the Phoenix Building, at which address he would like to receive manufacturers' samples and catalogues.

BOOK NOTES

AUTOMATIC SPRINKLER PROTECTION. By Gorham Dana. Full cloth, 400 pages; size, five and one-half by eight and one-half inches, illustrated. Boston: Thomas Groom & Company, Inc. Price, \$3.00.

This book is based on a series of lectures delivered by the author last year, and covers the third year course on the subject of Fire Protection as outlined by the Insurance Institute of America. Aside from its large technical value, as outlining the best method in present day use of equipment for sprinkler protection, the work has added interest as it gives a history of the origin and development of what has now become one of the most important safeguards against incipient fires and their disastrous spread. It will be a valuable acquisition to the technical library of architects.

ELEMENTS OF HEATING AND VENTILATION. A Text Book for Students, Engineers and Architects. By Arthur M. Greene, Jr. Full cloth, 325 pages; size five and one-half by nine inches. New York: John Wiley & Sons. London: Chapman & Hall, Ltd. Price, \$2.50 net.

In a preface to the work the author states that his aim in its preparation has been to bring together in logical order, and in a small volume, the necessary data from which to design the heating and ventilating system of buildings. The book is divided into twelve chapters which treat of methods, the amount and condition of air for ventilation, the method of calculating heat required, together with a chapter devoted to radiators, valves and transmission from radiators. In other chapters there are discussed the various systems of heating, direct, indirect, hot water and furnace, with a concluding chapter on temperature control, and drying by air.

The writer has divested his subject of all extraneous matter, and reduced it—as far as is possible with a topic of a scientific nature—to the simplest form of expression, so that the reader may readily grasp the facts set

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forth. The book offers much information that will be of interest to architects.

ARCHITECTURAL DRAFTING. By A. Benton Greenberg, in collaboration with Charles B. Howe. Full cloth, 110 pages; size, eight by eleven inches. New York: John Wiley & Sons, Inc. London: Chapman & Hall, Ltd. Price, \$1.50, net.

This work is one of a technical series issued by these publishers and edited by J. M. Jameson. The authors state in an introduction to the work that in arranging the text an elementary knowledge of mechanical and free-hand drawing on the part of the student has been assumed. For this reason, much of the detailed description that would appear in rudimentary work has been omitted. Undoubtedly, mere copying in draftsmanship leads to a superficial knowledge, and a purely mechanical skill, and does not promote either self-reliance or originality. The method evolved by the authors in this work is intended to lead the student into a broader and freer way of thinking and working, therefore enabling him to reach a higher plane of artistic interpretation.

SMALL COUNTRY HOUSES, THEIR REPAIR AND ENLARGEMENT. FORTY EXAMPLES CHOSEN FROM FIVE CENTURIES. By Lawrence Weaver. Full cloth, 204 pages; size, eight by eleven inches. New York: Charles Scribner's Sons. London: George Newnes, Ltd. Price, \$5.00.

It is easy to see in reading this interesting work that Mr. Weaver has gone to his task *con amore*. The illustrations picture a number of charming old houses, such as are to be found all over England and which have been (through the reverential attitude of the restorer) preserved for many future years of occupancy, a subject of respect to the dwellers therein, and of artistic enthusiasm on the part of their beholders. To the English architects, the book should be an inspiration and guide, and is, no doubt, much appreciated by them. The American reader will be interested in learning the methods

employed to prolong the lives of these venerable structures, and will find in the large number of illustrations a great amount of suggestive detail that will more than repay the cost of the work.

STRENGTH OF MATERIALS, A TEXT BOOK FOR SECONDARY TECHNICAL SCHOOLS. By Mansfield Merriman. Sixth edition, revised. Full cloth, five by seven and one-half inches. New York: John Wiley & Sons, Inc. London: Chapman & Hall, Ltd. Price, \$1.00.

In a preface to the first edition, the author states that in this work an attempt has been made to present the subject of the strength of materials in a manner so that it may be readily understood by those not acquainted with calculus. The degree of mathematical preparation necessary, it is stated, is merely that now given in the usual high school course. This, therefore, simplifies to a large extent what would otherwise be to the average reader a collection of abstruse problems, and affords him an opportunity to derive information as to strength of materials that will best serve his purpose. In the present edition, a new chapter has been added on reinforced concrete, especially as relating to columns and beams, together with a chapter on combined stresses. The work may be considered standard.

LUMBER AND ITS USES. By R. S. Kellogg. Full cloth, 350 pages, size six by nine inches, price \$1.00. Chicago, Ill.: The Radford Architectural Company.

The author states that he has endeavored to make this work a reliable source of information upon a subject that he believes has heretofore not received on the part of architects the close study and attention to which it is entitled. The work not only deals with the structure of the wood and its physical aspects, but explains the standard sizes of lumber, the method used in wood preservation, and various facts gleaned, it is stated, through long experience.

INDUSTRIAL INFORMATION

"Aqueduct" Wire Glass

In a leaflet issued by the Pennsylvania Wire Glass Co., 70 Fifth avenue, New York, there is illustrated "Aqueduct" wire glass, which the makers state has been made for use in locations where the necessity for a non-dripping skylight is present.

One of the principal difficulties in the way of satisfactory skylight service is the dripping of water of condensation from the under side of the skylight glass. While in some locations a small amount of drip may not matter, in others, a single drop of moisture may do large damage to goods beneath the skylight.

The makers state that in order to produce a glass that would be free from dripping, ordinary factory ribbed glass with 21 ribs to the inch was cut down to 8 ribs to the inch, thus affording a different surface contour. This surface contour, it is believed, is of such form as to give the greatest theoretical capillary attraction. This has been proven not only by experiments by the Pennsylvania Wire Glass Company, but also by those of the Bureau of Standards at Washington. It is therefore claimed that the use of Aqueduct wire glass for skylights secures an absolutely dry skylight, even when pitched at extremely low angles.

In addition to this advantage, Aqueduct is said to be a brilliant diffuser of light. The makers unqualifiedly guarantee this glass against breakage, either in transit, in installation, or for a period of one year after installation. The sweeping character of the maker's guarantee is based on the fact that the glass is made by a solid or one-piece process, thereby securing great strength.

The pamphlet referred to and a sample piece of this glass may be had on application.

Invisible Hinges

The Soss Manufacturing Company, 435 Atlantic Avenue, Brooklyn, N. Y., have issued a pamphlet which illustrates and describes a form of so-called invisible hinge, of which they are the manufacturers.

It is stated that these hinges will carry

any size door up to one thousand pounds; that their working parts are made of frictionless metal, and that they are adaptable to all manner of openings from the lightest door to the heavier form of bronze entrance doors. The pamphlet referred to illustrates a number of ingenious uses for this form of hinge. It will be sent to architects upon request.

Refrigerators

The Bernard Gloekler Company, 1127 Penn Avenue, Pittsburgh, Pa., are manufacturers of refrigerators, and in a pamphlet recently issued, they illustrate and describe various types, particularly adapted to the home. The makers state that these refrigerators combine all the sanitary features, conveniences and utilities that have become a necessary part of refrigerator construction, and are guaranteed to efficiently perform the service for which they are intended.

They desire to correspond with architects with a view to supplying types and styles that harmonize with the interior designs of various houses. They will send the pamphlet referred to upon application.

Presto Radiators

Presto improved pressed metal radiators for steam, vapor and hot water heating, located either on the wall or on the floor, where they are out of the way, are illustrated and described in a catalogue issued by the Pressed Metal Radiator Company, Pittsburgh, Pa.

The makers direct particular attention to the fact that these radiators are sanitary, that they heat and cool quickly, and that they occupy from one-fourth to one-third less space than the usual type of direct radiators, and weigh but one-third as much. These radiators are guaranteed not to leak. The pamphlet containing illustrations of radiators in various unusual locations, tables of sizes and efficiency and other useful information, will be sent upon application.

THE AMERICAN ARCHITECT

Window Locks

The Lande Window Lock Company, 116 Nassau street, New York City, manufacture a window lock for which they claim many improvements over the usual device supplied for this purpose.

The lock, it is stated, firmly locks the sash in any desired position, insuring, when partly opened, perfect ventilation and protection against burglary and other outside intrusion.

The pamphlet will be sent upon application.

Automatic Sprinkler System

The Globe Automatic Sprinkler Company, 1610 Reading Road, Cincinnati, O., have recently issued a pamphlet, which in its text and illustrations describes the method of manufacture of accessories for, and the installation of the system made by this company. The campaign of "safety first" that is being waged all over the country, with particular attention to the prevention of fire waste, gives interest to a pamphlet of this nature, as it not only provides an apparatus for the prompt and efficient extinguishing of fires, but contains also information as to their prevention. The pamphlet will be mailed upon request.

Water Heating Garbage Destroyers

Catalogue No. 65, issued by the Kewanee Boiler Co., Kewanee, Ill., with branch offices in principal cities, illustrates and describes various types of water heating garbage burners made by this company.

A small fire started on the lower or coal grates of the burner will, it is stated, quickly dry the garbage, reducing it to a combustible condition, when it burns completely, without odor. While this burning of garbage is proceeding, a distinct saving in heating water for domestic purposes is effected.

These burners are built to withstand a pressure of 125 pounds to the square inch, thus enabling them to carry any city water pressure with safety. Catalogue will be mailed on request.

"Permutit"

"Permutit" is the name given by the inventor to a process for removing the corrosive hardness from water and imparting that softness that is necessary in the preservation of machinery and boilers. It is a porous mineral compound, and when placed in an ordinary iron tank will, it is stated, automatically remove all hardness from the water.

A pamphlet issued by The Permutit Company, 30 East 42d street, New York, describes the process employed and the machinery supplied by this company, in detail. They desire to correspond with interested parties, and will send the pamphlet referred to upon application.

Diamond Expansion Bolts

Catalogue No. 285, issued by Diamond Expansion Bolt Co., 90 West Street, New York, illustrates the full line of expansion bolts made by this company. It will be mailed on application.

The necessity for an effective means of anchoring in a safe and sure way to surfaces of concrete, brick and stone would appear to be successfully met in these devices.

Bolts for plumbing fixtures set in tile or marble, anchors for electrical equipment, both interior and exterior, and many locations presenting difficulties of attaching accessories, are illustrated in this pamphlet. In addition there are full instructions as to the correct manner of setting expansion bolts to secure best results.

Architects' Drawing Boards

The Economy Drawing Table Co., Toledo, Ohio, manufacture drawing tables, sectional filing cases and specials in this line, for use wherever such utilities are required. These are illustrated in a pamphlet that will be mailed on request.

Particular attention is directed to a form of table for draughtsmen that is capable of every adjustment that will facilitate access to all parts of the surface of large drawings. It is stated that in each position this table is absolutely rigid. It is controlled by hand and foot levers.



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8-3



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The initial cost of KAWNEER STORE FRONTS is relatively high but because of the sales it creates (the net profit it makes for the Merchant behind it) and the unusual low cost of upkeep, the ultimate

cost is relatively low. No Store Front represents a good investment if its first cost is low and its ultimate cost high.

There is a KAWNEER sash, corner bar, division bar, transom bar, jamb mouldings and bulkheads for every condition—they are built in both small and large sizes to use, not merely to picture in our literature.

Our latest edition of "Booklet No. 3" was compiled and printed for you Architects and if you haven't received your copy, just drop us a note and we'll rush it to you. Just say, "Send Booklet No. 3" — it shows full size details that can be

traced direct, together with other practical information about Store Fronts.

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BUILDING NEWS

To be of value this matter must be printed in the number immediately following its receipt, which makes it impossible for us to certify it all. Our sources of information are believed to be reliable, but we cannot guarantee the correctness of all items. Parties in charge of proposed work are requested to send us information concerning it as early as possible: also corrections of any errors discovered.

ALABAMA.

BIRMINGHAM, ALA.—Architect Harry B. Wheelock, Steiner Bldg., is preparing plans for a 12-story jail building to be erected on part of the present jail site and will cost about \$300,000.

CALIFORNIA.

ANAHEIM, CAL.—Plans for the new city hall building, to be erected in this city, have been submitted to the trustees by Architect M. E. Durfee.

BENICIA (SOLANO CO.), CAL.—The Benicia Tannery will erect a five-story brick building on a site on the east side of First street.

DEL PASO, CAL.—The members of the Del Paso Heights Women's Club have purchased a site at the corner of Grant and Park avenues, upon which to erect a new club house.

FOLSOM, CAL.—Bids for the construction of the new grammar school building for the Granite School District will be opened September 16th. Architects Sellon & Campbell, 1005 K street, Sacramento, prepared the plans for the structure.

OAKLAND, CAL.—The directors of the Altenheim, a German institution in this city, have appropriated \$50,000 for the erection of a new wing to the building, and contract for its construction will be awarded shortly.

OAKLAND, CAL.—The Jersey Milk, Cream & Butter Company, of this city, will erect a large creamery building on property at 37th and Grove streets.

Architects O'Brien Brothers, Clunie Bldg., are preparing plans for a two-story hotel building to be erected on Webster avenue at a cost of \$15,000.

OAKLAND, CAL.—A gift of \$140,000 has been received from the Carnegie Association, of New York City, to be used in the erection of four new library buildings for this city.

PASADENA, CAL.—Work on the new \$40,000 Marengo avenue hospital building will soon be started. Dr. W. A. Cundy, Dodworth Bldg., is secretary of the Hospital Association.

RICHMOND, CAL.—The Southern Pacific Company will erect a modern passenger station in this city at once, at a cost of about \$30,000.

SANTA ANA, CAL.—Plans are being completed by Architect J. Flood Walker for the new Westminster grade school building.

SAN FRANCISCO, CAL.—Architect W. Kroumhout of Holland has completed the plans for the Netherlands pavilion at the Panama-Pacific International Exposition, to be erected at a cost of about \$125,000.

SAN FRANCISCO, CAL.—Plans and specifications have been adopted for a new branch Carnegie library to be erected at Garfield Park.

SAN FRANCISCO, CAL.—Plans have been prepared by Architect Hermann Barth, 12 Geary street, for a new apartment building to be erected at the corner of California & Hyde streets for the Katz Estate. Building will cost \$80,000.

SUISUN (SOLANO CO.), CAL.—A new grammar school building, to cost about \$40,000, will probably be erected in this city. This matter was discussed at a recent banquet of the Chamber of Commerce.

WASHINGTON (YOLO CO.), CAL.—Rev. Father Wallrath, of Woodland, has announced that a site for a church edifice has been purchased on Harriet street, between Third and Fourth streets. An effort will now be made to raise funds for the construction of a church building.

CONNECTICUT.

GREENWICH, CONN.—At a recent town meeting, the people of this town voted to appropriate \$62,500 for school improvements.

Plans are being made for the erection of new buildings for St. Augustine's parish, Rev. J. B. Nihill, pastor.

Plans have been completed by Architect A. S. Meloy, P. O. Arcade, for a new house on Miles street, East End, for Angelo Varone.

SEYMOUR, CONN.—The gift of a new public library building for this city will be made by Henry P. and Edmund Hay, of this place. Building will cost about \$25,000.

TORRINGTON, CONN.—Plans have been prepared by Architect E. H. Waterbury, 10 Hotchkiss Place, for a new building to be erected on East Main street, for Charles L. McNeil.

WATERBURY, CONN.—Architects Freney & Jackson, 51 Leavenworth street, have completed plans for the gymnasium building to be erected on Thomaston avenue for the Waterville School District.

Plans have been completed by Architects Tyler & Duhaime, 125 East Form street, for a new cottage to be erected for Harry T. Greene.

COLORADO.

CANON CITY, COLO.—James E. McClure has purchased the George Cassidy property at the corner of Eighth and River streets and will have all buildings removed from the site, to make way for a new hotel building, to be known as the McClure House. Structure will cost about \$10,000.

DELAWARE.

WILMINGTON, DEL.—It has been announced by Architect Leon Wilde Crawford, 919 Market street, that plans for the new \$80,000 edifice for the Hanover Presbyterian Church have been completed, and bids will be received at an early date.

DISTRICT OF COLUMBIA.

WASHINGTON, D. C.—The Emergency Hospital is endeavoring to raise \$300,000 for new buildings.

FLORIDA.

PASS-A-GRIFFE, FLA.—The residents of this place are endeavoring to raise money with which to buy a site for a school building to be erected by the County School Board.

PENSACOLA, FLA.—Architect W. C. Frederick has completed plans for a new brick house to be erected on Lee street for Dr. F. A. Brink.

PENSACOLA, FLA.—Bids will be opened on September 15th for completing the work on the Pensacola post office building.

ST. PETERSBURG, FLA.—Bonds amounting to \$14,000 have been voted for school improvements.

Bids in duplicate will be received at the office of the State Board of Health, at Jacksonville, for the construction of a new building here, to cost about \$20,000, in accordance with plans prepared by Architect W. D. Willis, Brent Bldg.

GEORGIA.

MACON, GA.—A new terminal station is to be erected in this city. It is estimated that the buildings with platforms and approaches will cost about \$650,000.

IDAHO.

DAYTON, IDA.—Bids for the construction of the new district school building for this place will be opened by Architects Monson & Price, Salt Lake City, Utah, on September 2nd. Building will cost about \$15,000.

ILLINOIS.

CHICAGO, ILL.—The property at the northeast corner of University avenue and 54th place, West, has been purchased by Jacob C. Paquet, who will probably erect an apartment building on the site.

Barrett Specification Roofs

A Barrett Specification Roof was put on this building because—

The architect knew all about the different types of roofing and further knew that the National Biscuit Company were mighty particular people.

They had a big plant and they wanted it covered with a roofing that would give long service at a low cost.

Under such conditions the architect knew there was only one choice, namely: a Barrett Specification Roof, because it gives longer service at a lower unit

cost (the cost per square foot per year of service) than any other roofing he could specify.

This building is now covered with a Barrett Specification Roof and it will probably last twenty years or more with no maintenance cost. Many such roofs have lasted thirty years.

Every permanent building, whether large or small, should carry a Barrett Specification Roof because that means the most economical roof, and one that will be free from leaks and maintenance.

Ask any first-class architect regarding this proposition and he will verify all of the foregoing statements.

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Especially recommended for use above the ground level on the interior of stone, brick or concrete walls to exclude dampness.

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They cost less than piers and heavy timbers and extra excavation necessary to provide required air space beneath. They provide for absolute rigidity. No vibration is possible, regardless of character of machinery.

Booklet Free

A copy of *The Barrett Specification* with roofing diagrams mailed free on request.

Special Notice

We advise incorporating in plans the full wording of *The Barrett Specification*, in order to avoid any misunderstanding.

If any abbreviated form is desired, however, the following is suggested:

ROOFING—Shall be a Barrett Specification Roof laid as directed in printed Specification, revised August 15, 1911, using the materials specified and subject to the inspection requirement.



CHICAGO, ILL.—Frank E. Wilhelm, of the Cudahy Packing Company, has acquired the vacant property on Wellington street, east of Sheridan Road, as the site of a brick and stone residence, to cost about \$30,000.

May G. Telfer has purchased from Edward Kirshberg the premises at the northeast corner of Sheridan Road and Howard avenue, and it is the intention of the purchaser to improve the property with an apartment building, to cost \$60,000.

OTTAWA, ILL.—Plans for the new armory building are being completed by Architect John Dibelka, 20-23 South 40th street, Chicago, and bids will be invited shortly. Structure will cost about \$30,000.

PEORIA, ILL.—Edwin Lehmann has purchased two sites on South Adams street, below Oak street, in Ballance's Addition, and a new building will be erected in the near future.

SPRINGFIELD, ILL.—The local mission of the Evangelical Association will erect a modern brick church building to cost \$9000, to be erected at the corner of East Carpenter street and Chestnut avenue. Architect S. Bullard, Unity Bldg., is preparing plans for the structure.

Bids will be received by the Board of Administration in its office in the Capitol Building, this city, until 3 p. m., September 14, 1914, for the erection of buildings and improvements for the State.

MOUNT CARROLL, ILL.—A new residence hall is being planned for the Francis Shimer School, owing to the increased attendance.

INDIANA.

BRAZIL, IND.—Bids will soon be requested for the construction of a new Evangelical Association Church building, to be erected at North Forest avenue, East Morton and East McDonald streets. Rev. Weissar is pastor of this church.

GREENCASTLE, IND.—The Board of Education contemplates the erection of a \$60,000 two-story high school building, according to plans by Architects H. L. Bass & Co., 801 Hume-Mansur Bldg., Indianapolis.

INDIANAPOLIS, IND.—The Fidelity Trust Company has purchased the building at 148 East Market street, formerly occupied by the Marion County State Bank, and the company intends to erect a new building on the site.

TERRA HAUTE, IND.—Competitive plans for the new departmental school building to be erected at Tenth street and Lafayette avenue, on the Kafader site, have been received by the Board of School Trustees.

IOWA.

FORT DODGE, IA.—Plans are now being prepared for the proposed new city hall building to be erected in this city.

KEOKUK, IA.—Bids will be received for the construction of the Garfield School Building here, until noon, September 3rd, according to plans prepared by Architect H. E. Ratcliffe, Dorsey Bldg.

MUSCATINE, IA.—The members of the local lodge of Elks have voted to remodel their home on East Front street, at a cost of about \$15,000.

SIoux RAPIDS, IA.—Bonds in the amount of \$60,000 have been voted for the purpose of erecting and equipping a modern school building here.

KENTUCKY.

ASHLAND, KY.—A new hospital building, to cost \$20,000, is to be erected on a site on Lexington avenue by the Kings' Daughters.

ASHLAND, KY.—The Kings' Daughters have completed their plans for the new hospital building which they propose to erect on a site on Lexington avenue at a cost of \$20,000.

LOUISVILLE, KY.—A committee with E. L. Davis as a member has been appointed by the Directors of Hope Rescue Mission to plan a new building to be erected on the site of the burned structure on Jefferson, west of Eighth street. About \$30,000 will be expended in this improvement.

LOUISVILLE, KY.—The Board of Trustees of the First Church of Christ Science has purchased a site at the corner of Third street and Ormsby avenue, and is having plans prepared for a new edifice to be erected thereon.

NEWTON, KAN.—H. P. Krehbiel has purchased the sites at the corner of Seventh and Main streets, and is preparing plans for the erection of a business building to be occupied by the Herold Book Store and printing office.

LOUISIANA.

DEQUINCY, LA.—P. E. Hammons has had plans prepared for a new hotel building to replace the Frisco Hotel, destroyed by fire some time ago.

MARYLAND.

BALTIMORE, MD.—The Overlea Realty Company, Henry Kolb, president and manager, has sold to H. L. Smith and wife, two sites on Forest View avenue, Belmar, and plans are being prepared for a nine-room cottage to be erected thereon.

BALTIMORE, MD.—Plans are being completed by Architects Murphy & Olmstead, 1413 H street, Northwest, Washington, D. C., for a \$75,000 chapel for St. Charles' College at Catonsville.

BALTIMORE, MD.—Plans are being prepared by Architects Kubitz & Sylvenson for a twelve-story office building to be erected on 41 South Liberty street, for Louis Applefeld.

FROSTBURG, MD.—Bids will be received by the Board of School Commissioners for Allegheny County, at their offices, 7 Union street, on or before 4 p. m., September 8th, 1914, for the erection of a two-story brick addition to the Hill street school in this city, in accordance with plans prepared by Architect George F. Sansbury, Citizens' National Bank Bldg., Cumberland, Md.

Bids will probably be requested on plans prepared by Architect E. L. Palmer, Jr., for a new residence for Dr. Donald R. Hooker, to be erected on part of the Macsherry property north of Roland Park, between Roland avenue and the Falls road.

Plans will soon be completed for Joseph Castelberg's residence on the Lake Drive, opposite Druid Hill Park.

The Townsend-Grace Company, 209-11 West Fayette street, is considering the erection of a rear addition to its present building.

Architects Parker, Thomas & Rice, Union Trust Bldg., are preparing plans for the Maryland State Buildings, to be erected at the San Francisco exposition.

MASSACHUSETTS.

BELCHERTOWN, MASS.—The late Mrs. Sarah T. D. Robinson, of Lawrence, Kans., left a bequest of \$30,000 in her will for the erection of a public building in this city. The site of the former Highland Hotel has been secured for this building.

FALL RIVER, MASS.—Architect Louis G. Destremps, 56 North Main street, has been commissioned by the Watuppa Water Board to prepare plans for the erection of an auxiliary pumping station, to cost about \$18,000.

HAVERHILL, MASS.—Architect James A. Perkins, 47 Merrimac street, is preparing plans for the rebuilding of the Gale Hospital in this city.

METHUEN, MASS.—A new brick school building is to be erected to replace the old wooden structure in the Pleasant Valley district.

SALEM, MASS.—The Salem Hospital Corporation has acquired 25 acres of land on the Ware Farm in Highland avenue, as the site for a new hospital.

SALEM, MASS.—J. I. Porter will erect a three-story brick block in Leach street, to replace the one-story frame building that was destroyed by the recent fire.

WALTHAM, MASS.—Plans for the new public library building to be erected on the site of the MacGregor Garage Building, now being demolished, are about completed.

MICHIGAN.

ANN ARBOR, MICH.—The proposed new \$60,000 club house is to be erected by the Michigan Union management next summer. Emeritus James B. Angell is president of the club.

BAY CITY, MICH.—Plans are being prepared by Architects Clark & Munger, Shearer Bldg., Bay City, for the construction of a three-story Y. M. C. A. building to be erected at a cost of \$45,000.

CASSOPOLIS, MICH.—Plans are being made among the members of the Catholic Church to establish a Catholic Mission here. Father McNamara, Notre Dame, who has been appointed pastor of the missions in that territory, will have charge of the work.

Make Fuel of Garbage

Garbage can be used for fuel.

One ton of it, when dried, contains, on an average, as much heat as 400 pounds of good coal. Therefore owners of buildings who have garbage to dispose of actually cannot afford to have it hauled away.

A Kewanee Water Heating Garbage Burner will burn garbage and rubbish, without odor. That keeps the premises clean and sanitary, solving the garbage problem forever. And the garbage and rubbish is used as fuel for heating water—cutting hot water costs to a minimum.

KEWANEE

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for apartments, hotels, hospitals, restaurants, etc., are the sanitary and economical way of disposing of the garbage and refuse before it has a chance to decay and breed rats and flies and other disease carrying insects and vermin.

A small coal fire is started on the lower grates. The by pass at the back (a patented feature of the Kewanee) prevents the wet and damp garbage from smothering the fire. The garbage is quickly dried and burns without odor. The garbage grates contain water and the entire chamber is surrounded by water which heats water hot in abundance.

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Steel Power and Heating Boilers, Radiators, Tanks and Water Heating Garbage Burners
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GRAND RAPIDS, MICH.—A new church building will soon be erected at Broadway avenue and North street, to cost in the neighborhood of \$75,000, by St. Anthony's parish.

SAGINAW, MICH.—It is announced that plans are completed for the new plant of Werner & Pfeiderer, to be erected at Hess and Williamson streets.

ST. JOSEPH, MICH.—It has been announced by Fitzpatrick, McElroy & Pelley, lessees of the Bijou Theatre, Benton Harbor, that the theatre building will be remodeled at a cost of \$25,000.

MINNESOTA.

DULUTH, MINN.—The new armory building will probably be erected on a site at 13th avenue east and London Road.

DULUTH, MINN.—Architect W. A. Hunt, Lonsdale Bldg., has completed plans for the erection of a new brick Roman Catholic Church to be erected on 49th avenue, east, between Superior and Pitt streets, Lakeside.

Architects Kelly & Williams are receiving bids on plans for the proposed new school building to be erected in this place.

Architect Arthur Hanford, Killwood Bldg., is preparing plans for a frame and stucco house to be erected for the Lakeside Land Company on Pitt street.

LITTLE FALLS, MINN.—C. A. Sprandel will erect a new two-story brick building on his property on First street. Structure will cost about \$8000.

MINNEAPOLIS, MINN.—This city is having plans prepared for the erection of a one-story library building to be erected in this city at a cost of about \$40,000. Edward L. Tilton, 32 Broadway, New York City, and Chapman & Magney, 509 Essex Bldg., are the architects.

The Board of Education will soon purchase a site for the erection of a new high school building.

ST. PAUL, MINN.—Architect E. L. Masqueray, Oppenheim Bldg., has submitted several sketches for the proposed new edifice for the Macalester Presbyterian Church, of which Rev. F. D. McRae is pastor.

MISSOURI.

CARTHAGE, MO.—Bids will be readvertised for the erection of the new Lincoln School building, for which a \$10,000 bond issue was voted last spring.

MARYVILLE, MO.—At a recent meeting of the stockholders of the Chautauqua, plans were discussed for a new auditorium and a women's rest room, to be erected some time in the early future. Fred Miller is a member of the Board of Directors.

ST. LOUIS, MO.—The Missouri Athletic Club is planning the erection of a \$600,000 club house, which it contemplates erecting at Fourth and Washington streets.

MISSISSIPPI.

GULFPORT, MISS.—The members of the Board of Supervisors have decided to issue bonds in the amount of \$17,000, for the improvement of the property at the Agricultural High School at Perkinston.

JACKSON, MISS.—A bond issue of \$45,000 has been carried for the erection of a new court house building for Webster County. Plans for this building have been prepared by Architects Overstreet, Spencer & Paine, Scatter Bldg.

MONTANA.

BILLINGS, MONT.—It has been announced by E. B. Camp that he will move his residence at 212 North Broadway to 615 North 29th street, and remodel it into four apartments.

GREAT FALLS, MONT.—The Gamble-Robinson Co. will build a brick warehouse here according to plans by Architect George H. Shanley, this city.

HAMILTON, MONT.—Carnegie Corporation has approved plans for the new library building to be erected here at a cost of \$9000.

NEBRASKA.

CAIRO, NEB.—Plans for a new school building here have been presented to the School Board by Architect Oscar Kirschke, Grand Island.

CHAPMAN, NEB.—Architect F. W. Clark, Brandeis Bldg., Omaha, is preparing plans for the new school building in this city, for which bonds in the amount of \$18,000 have been voted.

NEW JERSEY.

ATLANTIC CITY, N. J.—Plans have been completed for a six-story addition to be erected to the Hotel New Princess, South Carolina and the Beach.

BINGHAMTON, N. Y.—Bonds in the amount of \$233,000 have been voted for school improvements in this city.

BRADLEY PARK, N. J.—Bids for alterations and additions to the Bradley Park school building will be received by the Board of Education of Neptune Township on September 10th, 1914, at 8 p. m. Plans may be seen at the office of Architects W. C. & A. F. Cottrell, 318 Kinmonth Bldg., Asbury Park.

CAMDEN, N. J.—Architects Ballinger & Perrot, 1211 Arch street, Philadelphia, Pa., are preparing plans for a two-story dining-room building, to be erected to the plant of the Victor Talking Machine Co.

CRANFORD, N. J.—Tentative plans are being prepared for the erection of a three-story modern hotel building at North avenue and Alden street, on the property of S. R. Driescher and J. W. Heins.

GLOUCESTER CITY, N. J.—The Board of School Estimates has authorized an appropriation of \$20,000 for the erection of a new four-room primary school building in the Monmouth Terrace section of this city.

LOCKPORT, N. Y.—Architect William Neil Smith, 1 East 47th street, New York City, is preparing plans for improvements to the high school building in this city.

MERCHANTVILLE, N. J.—The Board of Education of this village will erect an addition to the present school building on South Center street.

MONTCLAIR, N. J.—Plans prepared by Architects Guilbert & Betelle, 665 Broad street, have been filed for a dormitory building to be erected at the State Normal School here, to be known as Russ Memorial Hall.

NEWARK, N. J.—Joseph Bancone is soon to begin the erection of a four-story brick store and apartment building at 557 North 17th street, to cost about \$14,000.

Plans have been prepared by Architect John B. Cella for a four-story brick apartment building to be erected at 29 and 31 Hayes street for Pasquale & Amato Daniele. Cost, \$11,000.

Plans have been completed by Architect August M. Kleemann, 741 Broad street, for a one-story brick store building to be erected by Stephen A. Gottwalt at Central avenue and Tenth street.

ROCHESTER, N. Y.—Plans for a new motion picture theatre building to be erected on the southeast corner of Conkey avenue and Avenue B, at a cost of \$18,000, have been completed by Architect A. Siegel, 4 Concord street.

VENTNOR, N. J.—Plans have been completed and bids will shortly be asked for the erection of a six-story apartment building here for John Stafford. Structure will cost \$175,000.

NEW YORK.

BROOKLYN, N. Y.—Architects H. Millman & Son, 1780 Pitkin avenue, have prepared plans for a four-story brick apartment building, to cost \$24,000, to be erected on the southeast corner of Barvey street and Belmont avenue for S. Glick, 465 Prospect avenue, N. Y.

Plans have been filed with the Brooklyn Bureau of Buildings for two four-story brick buildings, costing \$40,000 each, to be erected on Pacific street east of Bedford avenue, by the Rapid Building Co.

The Dyker Heights Improvement Company will build a one-story moving picture theatre building at the southeast corner of 13th avenue and 76th street, at a cost of \$10,000.

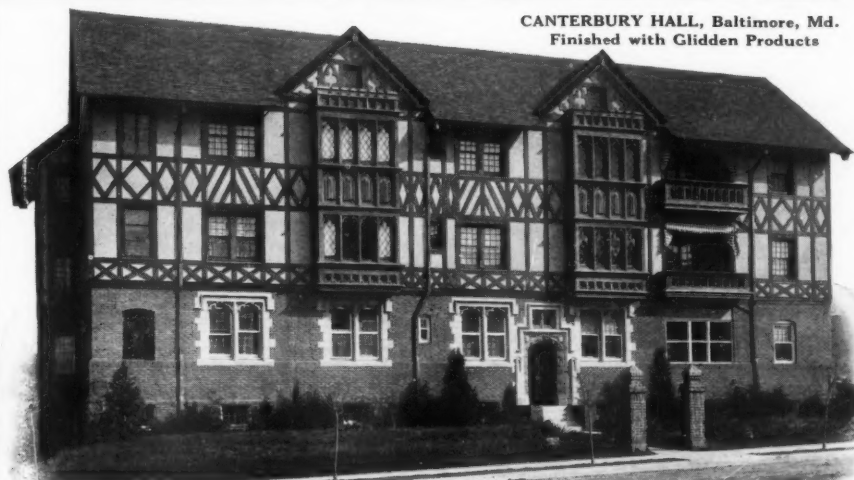
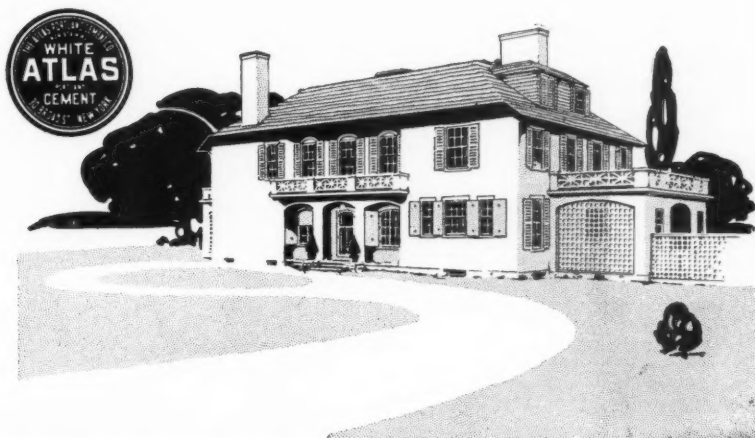
ITHACA, N. Y.—Plans and specifications have been completed by Architects Miller & Mallory, Sage Block, for the new Cayuga Preventorium, and bids will be requested shortly.

LONG BEACH, L. I., N. Y.—Architects Cross & Cross, of this city, are preparing plans for a large seashore hotel, to be erected here for the Lido Corporation, Henry Rogers Winthrop, president. Building will cost about \$1,000,000.

LOWVILLE, N. Y.—Dr. Harvey Dee Brown, field agent, has been in this city in the interests of a new county tuberculosis hospital for Lewis County.

The New Freedom

of architectural design has been made possible by the great adaptability of such beautiful materials as Atlas-White non-staining Portland Cement in the hands of able men. Pure white, and as for strength—it has the strength of Atlas.



CANTERBURY HALL, Baltimore, Md.
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Strengthen your service to your clients by having Glidden Service co-operate with you on problems of stains, varnishes and enamels.

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Here are a few suggestions which may solve pressing problems at once.

A few of the Glidden products well worthy to be specified on plans now in your office:

- Glidden's M. P. Durable Floor Varnish
- Glidden's M. P. Durable Interior Varnish
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THE Glidden VARNISH CO.
CLEVELAND, OHIO.
10936 Madison Ave., N. W.

NEW YORK CITY.—Plans have been filed by Architects Neville & Bogge, 217 West 125th street, for two five-story apartment buildings, costing \$80,000, to be erected on the corner of Audubon avenue and 191st street for the Tralow Realty Corporation, Patrick S. Treacy, president, 1931 Broadway.

Plans for alterations to a three-story storage and loft building at 277 to 279 Cherry street, owned by Kauffman and Lewenthal Realty Company, 206 Division street, have been filed by Architect L. A. Sheinart, 194 Bowery. Cost, \$16,000.

Architect A. D. Shepard, 36 East 23rd street, has filed plans for alterations, costing \$6500, for alterations to a six-story office building on John street, corner of William, owned by the Reformed Protestant Dutch Church, 113 Fulton street.

Plans have been filed by Architect F. E. Vitolo, 1356 Kingsbridge Terrace, for alterations costing \$12,000, to two three-story dwellings at 46 and 48 MacDougal street, owned by Nervo & Balbiani Co., 18 King street.

Plans for alterations, costing \$9000, have been filed by Architect G. A. Freeman, 311 Madison avenue, to a four-story store and office building at 12 East 46th street, owned by the Home Club Co., 11 East 45th street.

NEW YORK CITY.—Architect Frank E. Quimby, 99 Nassau street, has filed plans for a three-story brick saw-mill, to cost \$10,000, to be erected from 205 to 211 Avenue D, near 13th street, for Mary E. Barbey, owner, care Douglas Robinson and Charles S. Brown, 14 Wall street.

Plans for alterations to a four-story brick department store at 272 to 276 Sixth avenue, owned by Aaron Adler, 272 Sixth avenue, have been filed by Architect Louis A. Rheinhart, 194 Bowery. Cost, \$10,000.

PORT CHESTER, N. Y.—Plans are being prepared for a nine-room house to be erected this fall on North Regent street, Colonial Ridge, by Ernest Parker.

PORT JERVIS, N. Y.—The Treasury Department has called for bids for the construction of the new post-office building to be erected here. They will be opened on September 14th, by the supervising architect.

NORTH CAROLINA.

PORTLAND, ORE.—F. E. Bowman Co., Commercial Club Bldg., will build a two-story residence at East 19th and Freemont streets, at a cost of \$5000.

WILMINGTON, N. C.—Architect James F. Gause, Jr., will prepare the plans for the new fire station to be erected at 5th and Castle streets, at a cost of about \$5500.

OHIO.

CINCINNATI, O.—A. M. Moore has purchased a site on the northeast corner of Menlo avenue and Fisher avenue, Hyde Park, and expects to build a new residence at once.

HAMILTON, O.—The members of the Butler County Country Club have decided to purchase 80 acres of the Frederick farm, upon which to erect a new club house at a cost of about \$15,000.

LIMA, O.—Plans are being prepared and contract will be awarded shortly for a \$10,000 residence to be erected by Frank L. Maire at Market and Metcalf streets.

LIMA, O.—Contract will soon be awarded for a \$25,000 addition to the North Union street plant of the Stolzenbach Baking Co., C. F. Stolzenbach, president.

SPRINGFIELD, O.—A cottage for boys will be erected at the Ohio Masonic Home, west of this city, at a cost of about \$35,000.

SPRINGFIELD, O.—Plans for the new Knights of Columbus Home to be erected on East High street, have been completed by Architects Theis & Theis, 208 South Ludlow street, Dayton, O., and are now on file at the Builders' Exchange. Building will cost about \$42,000.

Architect R. C. Gotwald, Gotwald Bldg., has completed plans for an addition to be erected to the high school building for Pleasant Township, and bids will be received for the work until noon, September 5th, 1914.

OREGON.

PORTLAND, ORE.—Architects Whitehouse & Foulhoux, Wilcox Bldg., and Jacobberger & Smith, Board of Trade Bldg., are preparing plans for the proposed Catholic Church School and Archbishop's residence, to be erected in this city at a cost of about \$250,000.

Plans are being prepared by Architects Whitehouse & Foulhoux, Wilcox Bldg., for a new residence to be erected at East 23rd street and Stephen street, for O. B. Scott, to cost \$12,000.

PENNSYLVANIA.

CHEYNEY, PA.—Architects Morris & Erskine, Crozer Bldg., are preparing plans for a two-story building to be erected here for the Shelter for Colored Orphans.

DUBOIS, PA.—Plans are about completed for the tabernacle to be erected on the Y. M. C. A. athletic field for the Stough Evangelistic Association. B. C. Skinner is chairman of the tabernacle committee.

DUQUESNE, PA.—George Brunner has purchased from the Homestead Realty Company a site at the corner of South First street and Library place, and an up-to-date public garage will be erected.

ERIE, PA.—The city engineer has been authorized to readvertise for bids for the completion of the third floor of the city hall building.

ERIE, PA.—Plans for the erection of St. Andrews Church, Sixth and Raspberry streets, are being prepared by Architect W. P. Ginther, 213 Everett Bldg., Akron, O.

FRANKFORT, PA.—Plans have been completed and bids are being received by the Board of Education for a four-story high school building to be erected at Oxford and Wakefield streets.

JOHNSTOWN, PA.—Winters Wendell, manager of the Ferndale Grocery, has purchased the property on the northeast corner of Ferndale avenue and Station street and intends to erect a large brick store building on the property, to be occupied by the Ferndale Grocery.

LANSDOWNE, PA.—Plans are being completed for the new addition to the high school building here to cost about \$50,000.

PHILADELPHIA, PA.—Charles D. Land will soon begin the erection of 39 dwellings and a corner store and dwelling on the property at the northwest corner of 27th and Cambria streets.

Plans are being prepared by Architects Simon & Bassett, 1112 Chestnut street, for a two- and one-half story residence to be erected in Roxborough for William Galt.

Architects D'Armond, Ashmead & Bickly, 618 Chestnut street, have completed plans and invited bids for a three-story stone residence to be erected in Wilmington, Del.

Architect W. L. Blithe, 608 Chestnut street, is preparing plans for alterations and additions to the house of John B. Williams in Narberth.

Plans are being prepared by Architects D'Armond, Ashmead & Bickley for a three-story residence to be erected for Josiah Marvel.

Plans have been completed and bids invited for the installation of fireproof stairways in the buildings of the Philadelphia Hospital, 34th and Pine streets.

Sub-bids have been invited by Irwin & Leighton on plans for a smoke-gathering plant for the Reading Railway Co., at 9th and Green streets.

Architects Charles W. Bier, 219 6th street, has been selected by the Schenley Heights M. E. congregation to prepare plans for the new church and parsonage to be erected at Bryn Mawr Road and Iowa street, at a cost of \$35,000.

PHILADELPHIA, PA.—John W. Plank has purchased through Isaac Kershaw, broker, the Louella property on Lancaster Turnpike at Wayne station. This tract will be divided into building lots and a portion will be reserved for the erection of an apartment building.

Sub-bids are being received by James McCrea & Brothers on plans for a four-story warehouse at 131-133 North Water street.

Plans have been completed and bids are being received by the Board of Education for a four-story school building to be erected at Oxford and Wakefield streets.

The Eastern Lamp Company is having plans prepared for a one-story factory building to be erected at 84th street and Eastwick avenue.

PHILADELPHIA, PA.—Architects Stewardson & Page, 316 Walnut street, have solicited bids for the erection of a building at 18th and Fitzwater street for the Children's Hospital, to cost about \$50,000.

PHILADELPHIA, PA.—The Hoffman Company, 911 Walnut street, is preparing plans for a five-story hotel and store building to be erected at 59th and Market streets, for the Morris Realty Company.

The Joseph Bird Company has invited sub-bids on plans for a school building at Lansdowne.

Mr. H. Fisk's Residence, Green Bay, Wis., roofed with Asbestos "Century" Shingles. Architects, Foeller & Shober. Contractors, Pinchard Bros. Both of Green Bay, Wis.



Asbestos "Century" Shingles

*The Artificial Roofing Slate
with the Established Reputation*

IN the face of price competition, the sales of Asbestos "Century" Shingles are growing at the rate of **one hundred per cent** in four years.

The facts about Asbestos "Century" Shingles are getting wider and wider currency. The roofs are in evidence on every hand. Roofings are compared—their first cost, upkeep expenses, durability against weather and time, resistance to fire.

The Architect—The Builder— The Property Owner

To the architect, the builder, the property owner, this fact is proving itself—that in qualities of elasticity, toughness, uniformity and permanence against wear and accident, Asbestos "Century" Shingles hold up better than any of the "natural" or artificial roofings of commerce.

They are changing the property owners' whole standpoint toward his roof. For the first time in roofing history, he is coming to realize his roof as an investment instead of an expense—a thing to be bought for permanent service.

There is less tendency to "save" in the roof—a more open-handed feeling all around—an easier disposition to listen to the architect and the builder when they advise on the basis of quality.

The Patented "Century" Process and What it Means to You

Asbestos "Century" Shingles are made of long-fibre Asbestos and Portland Cement, combined by the patented "Century" process.

The "Century" Process is based on the discovery of the peculiar property of cement—that it takes on a colloidal form when held in suspension in large volumes of water, and makes an intimate and uniform compound with the asbestos fibre.

This process is the secret of the toughness, elasticity and uniformity of Asbestos "Century" Shingles. It is fully protected by basic patents and is controlled and operated solely by the makers of Asbestos "Century" Shingles.

If you have never featured these shingles, **write us** for trade terms and prices. We have arranged so that every roofer who wants to handle them can do so to advantage; and every architect who wishes to specify them, can find at hand a roofer competent to lay them as they should be laid.

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Branch Offices in the Principal Cities of the United States

RADNOR, PA.—Architect Charles Barton Keen, Bailey Bldg., Philadelphia, will receive bids for a new \$40,000 residence to be erected in this place for Paul Mills, Bryn Mawr.

PHILADELPHIA, PA.—Bids are being invited by Charles Gilpin and Frank E. Wallace on revised plans for outpatient buildings to be erected at 18th and Fitzwater streets for the Children's Hospital.

The Hoffman Company, 911 Walnut street, is preparing plans for a one-story theatre building to be erected in Conshohocken, Pa., at a cost of about \$25,000.

Plans are being completed by Architects Moffett and Stewart, for a two-story addition to the Lansdowne high school building.

Bids are being requested by the Joseph Bird Company on plans by Architect Harry Parker for a factory building to be erected at 59th street and Woodland avenue.

The Department of Public Safety is planning to erect a fire station at the southwest corner of Walnut Lane and Ridge avenue.

Plans have been completed for a rectory building to be erected at 50th and Master streets for the Church of Our Lady of Angels.

PHILADELPHIA, PA.—F. L. Hoover & Sons have plans posted for a two-story brick school building, costing \$25,000, to be erected in Cheltenham, according to plans by Architect H. C. Wise, 34 South 16th street.

PITTSBURGH, PA.—Architect Ward Williams is planning a two-story brick building to be erected in the Friendship Park district, at a cost of \$10,000, to be used by the Gospel Hall Association.

WEST MANCHESTER TOWNSHIP, PA.—The new almshouse will probably be erected on the George Jacobs Farm here, if the plans of the Directors of the Poor mature.

WEST VIEW, PA.—A large tract of land in this borough has been purchased from Henry Buhl, Jr., as a site for a large convent or mother house for the Felician Sisters, to cost around \$200,000. Rev. Jan S. Gorzynski, pastor of St. Adalbert's Roman Catholic Polish congregation of the Southside, is very much interested in the project.

WILKES-BARRE, PA.—Bids will be received by the Wilkes-Barre Township School District until the 5th day of September, 1914, for the erection of the proposed new school building on Casey avenue, according to plans prepared by Architect Owen McGlynn, 85-88 Simon Long Bldg.

WILKES-BARRE, PA.—Architects Sturdevant & Poggi, Coal Exchange Bldg., are preparing plans for a new hospital building to be known as the Wilkes-Barre Private Ward Hospital, but to be under the same management as the City Hospital. Structure will cost about \$160,000.

WILKES-BARRE, PA.—Plans have been completed by Architect Frank B. R. Sahn for a residence to be erected on Yeager avenue, Forty Fort, for William H. Yeager, of the firm of Breese & Yeager. House will cost \$8000.

YORK, PA.—Architects Stair & Leber, Guardian Trust Co. Bldg., will revise the plans for the Jackson and Madison school buildings, so as to bring the cost down to about \$80,000. When this has been done, the Building Committee will readvertise for bids.

SOUTH CAROLINA.

ROCK HILL, S. C.—W. B. Wilson, owner of the site at the corner of Railroad and White streets, will have a two-story arcade building erected on the site, according to plans by Architects Hook & Rogers.

SOUTH DAKOTA.

HOWARD, S. D.—A new Carnegie library building, to cost \$7500, will be erected in this city.

TENNESSEE.

MANCHESTER, TENN.—The Coffee County court house will be remodeled at a cost of about \$5000.

TEXAS.

AMARILLO, TEX.—Bids to be opened September 28th, have been advertised for by the government, for the erection of a \$200,000 Federal Building for this city.

BUCKHOLTS, TEX.—Bonds in the amount of \$12,000 have been issued for the erection of a new school building here.

CARROLLTON, TEX.—John T. Risien, publisher of the *Carrollton Chronicle* and the *Frisco Journal*, has stated that the business men of this city, headed by C. E. Hudson of Dallas, president of the First State Bank of Carrollton, will build a cotton warehouse here.

DALLAS, TEX.—Plans for two public comfort stations to be erected beneath the sidewalk on the site of the Junction Bldg., Elm and Ervay streets, have been ordered drawn by the Park Board. Cost of building these structures will amount to about \$20,000.

DALLAS, TEX.—According to announcement of W. A. Fraser, Sovereign Commander of the Woodmen of the World, a new three-story brick building will be erected adjoining the present headquarters of the Woodmen of the World on Ervay street.

A new postoffice building, to cost \$1,250,000, is to be erected in this city. B. M. Burgher is postmaster here.

DALLAS, TEX.—Plans have been completed by Architects C. D. Hill & Co., Wilson Bldg., for the new home of the Central Presbyterian Church Building, to be erected on the southeast corner of Patterson avenue and Bullington street. Edifice will cost about \$200,000. Dr. J. Frank Smith is pastor of this church.

GALVESTON, TEX.—It has been announced by I. A. Stein, manager of the Galveston Brewing Company, that a two-story brick building will be erected by the company at the corner of 24th street and Strand.

SAN ANTONIO, TEX.—Bids will be received until noon, September 16th, for the erection of a concrete building at the Main avenue high school, in accordance with plans on file at the office of School Architect Leo J. Dielmann.

SAN ANTONIO, TEX.—Architect Ralph Cameron, 101 Upson street, has prepared plans for the new edifice to be erected on Camden street for the congregation of Madison Square Presbyterian Church.

UTAH.

PRICE, UTAH.—A new hospital building will probably be erected in this city shortly. Dr. R. E. Cloward is one of the promoters of this project.

SALT LAKE CITY, UTAH.—A new grade school building is to be erected on the Hamilton School site. Bids will probably be solicited within a short time.

VERMONT.

BOLTON, VT.—A new two-room school building will probably be erected in East Bolton. The selectmen have called a special town meeting of the legal voters, to be held September 10th, 1914, at 10 a. m. to see whether the town will authorize the erection of this building.

WASHINGTON.

EVERETT, WASH.—According to information obtained from Representative J. A. Falconer of the Treasury Department, Washington, D. C., plans for the proposed new Federal Building here, to cost about \$165,000, will be completed by December 1st, 1914.

SEATTLE, WASH.—The Franklin Engineering Co., Hoge Bldg., will receive bids for the construction of a one-story ice-skating rink, to be erected by the Seattle Arena Co., at 14th avenue and Jefferson street, at a cost of about \$60,000.

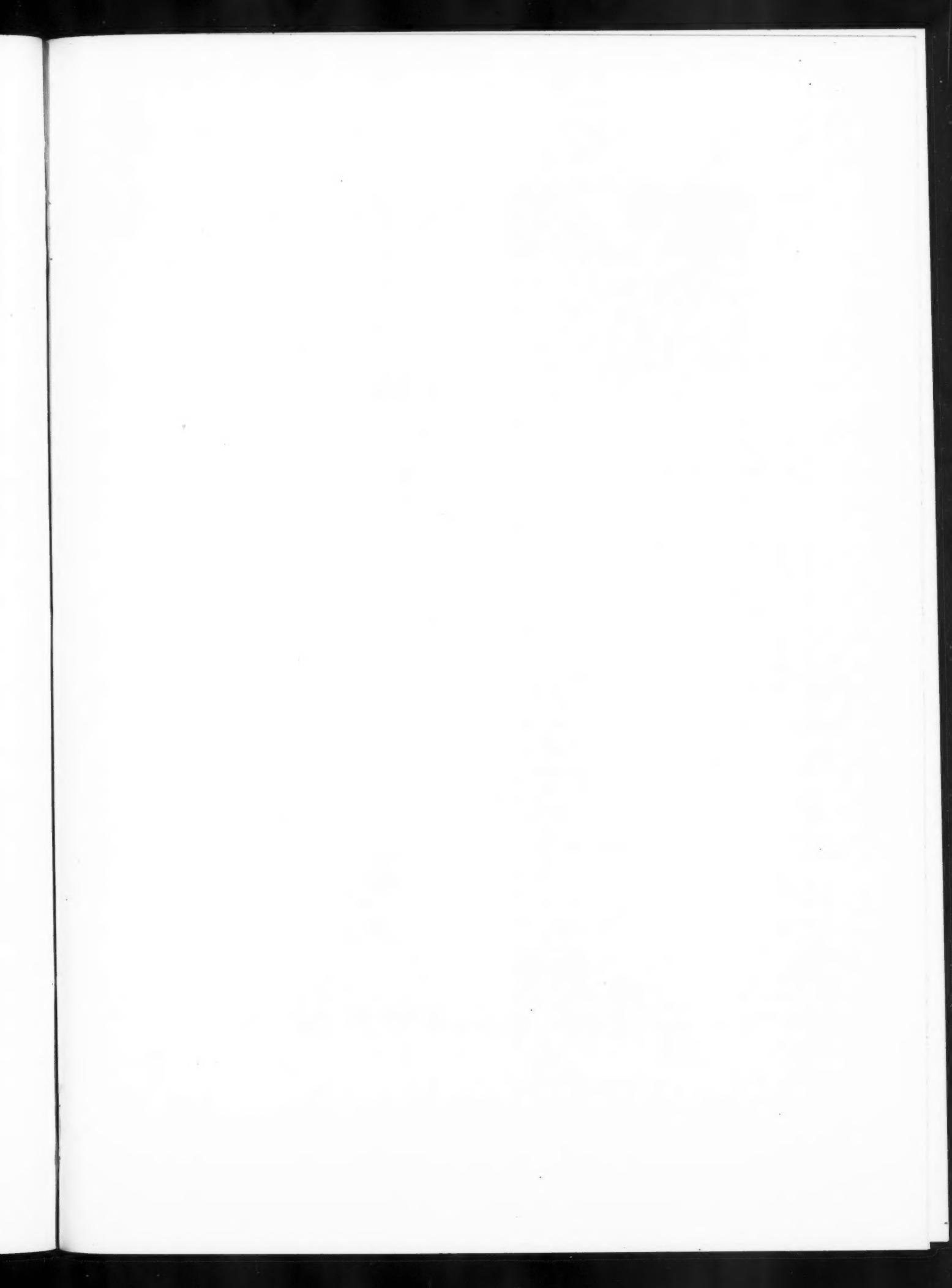
TACOMA, WASH.—Architect E. F. Champney, 236 Henry Bldg., Seattle, has been awarded the contract to prepare the plans for the new Elks' temple to be erected at 7th, C and Commerce streets. Structure will cost about \$100,000.

TACOMA, WASH.—The Washington Graduate Nurses' Association is endeavoring to raise money to build the State Nurses' Home on land donated by J. H. Easterday on Fox Island. Mr. Easterday is an attorney in this city.

WISCONSIN.

MARINETTE, WIS.—Bids will be received by A. Z. White, secretary of the Board of Education, until September 8th, for the construction of the new high school building in this city, to cost \$120,000. Plans were prepared by Architect John D. Chubb, 109 Dearborn street.

MILWAUKEE, WIS.—The Kneeland property on the southeast corner of Grand avenue and 11th street has been recommended by the Committee of the County Board, which has charge of the erection of the new court house as a site for this new county building.



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