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WIDENING REFINEMENTS IN THE DUBLIN CATHEDRALS

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IT APPEARS to be not only desirable, but also absolutely necessary, to preface my account of the St. Patrick's refinement by some account of the general subject which it so remarkably illustrates. The widening refinement is frequently found in all territories which have been examined by the Brooklyn Museum surveys—viz., Constantinople, Salonica, Italy, and Northern France. Judging

AUTHOR'S NOTE: The measurements and photographed observations which are recorded in this article have been made on behalf of the Brooklyn Institute Museum surveys of medieval buildings. I was prompted to take the photographs by suggestions which have recently appeared in the Dublin newspapers that there are widening refinements in at least one of the Dublin Cathedrals. I believe that these suggestions are verified by the constructive evidence in St. Patrick's at least, but make no claim to being either the original observer of the facts, or the original propounder of the theory that these facts represent a refinement. These facts are sufficiently well known, in a general way, to many people in Dublin, and the theory that a refinement is in question appears to have been first suggested by several American architects during their visit to Dublin, and possibly by others who have known of my observations relating to the widening refinement elsewhere. Mr. Edgerton Swartwout told me last winter that he thought I would find some good constructive evidence for a widening refinement in St. Patrick's, and this has turned out to be the case. The constable of the church, Mr. J. E. Parkinson, is now in the habit of pointing out the facts to visitors, and of citing them as evidence of a refinement. He also states that American architects have suggested this to him.

from the large number of instances so far observed, it was more universally employed during the Middle Ages than any other single refinement. It appears to be mentioned by Procopius, and is certainly mentioned in Evelyn's Diary. The description of the Santa Sophia Church at Constantinople, which was written by Procopius in the sixth century, includes the statement that the building "rises from the ground, not in a straight line, but setting back somewhat obliquely" (see page 25 of Lethaby and Swainson's work on Saint Sophia). This is an accurate description of the interior, as shown by a series of photographs recently taken in this church (April 1914).

The following passage is found in Evelyn's Diary, under date of July 27th, 1665; "I went to see St. Paule's Church, where, with Dr. Wren, Mr. Prat, Mr. May, Mr.

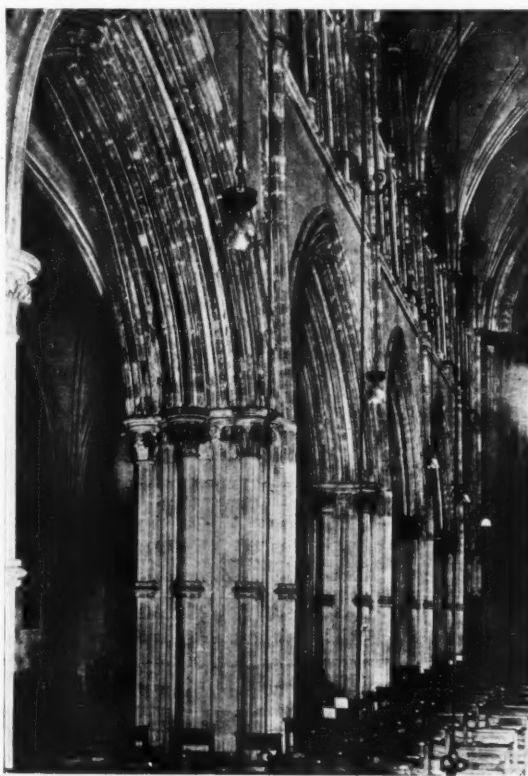


FIG. 1. CHRIST CHURCH, DUBLIN

LOOKING ALONG NORTH WALL, WITH THREE PLUMB-LINES. PHOTOGRAPHED FOR THE BROOKLYN MUSEUM SURVEYS OF MEDIEVAL BUILDINGS.

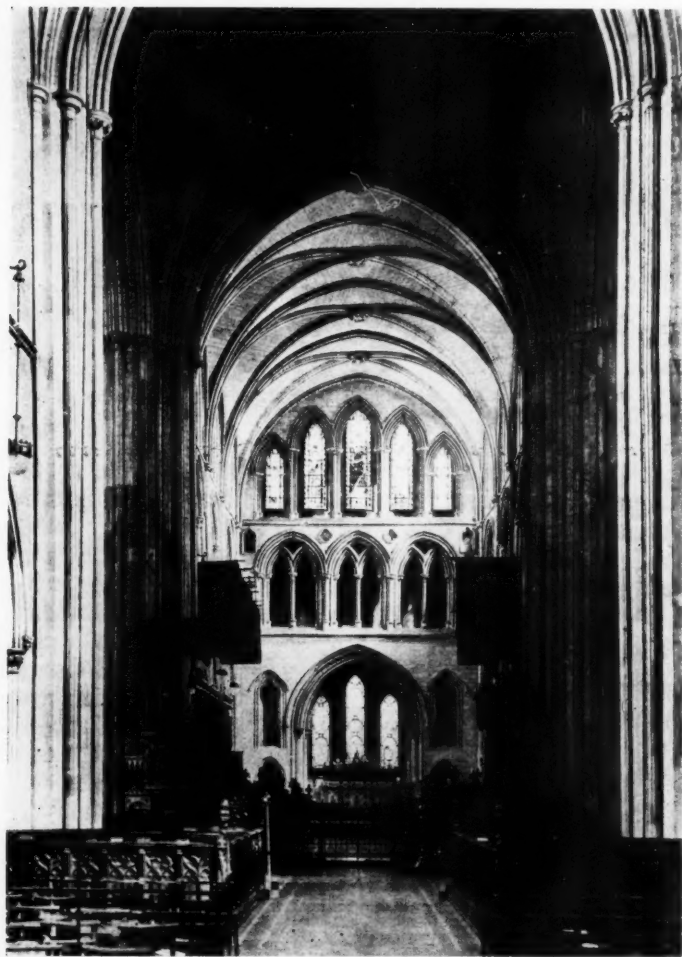


FIG. 2. ST. PATRICK'S, DUBLIN

THE CROSSING PIERS, WITH PLUMB-LINE PERPENDICULARS SHOWING BENDS, OR CURVATURES. PHOTOGRAPHED FOR THE BROOKLYN MUSEUM SURVEYS OF MEDIEVAL BUILDINGS.

Thomas Chichley, Mr. Slingsby, the Bishop of London, the dean of St. Paule's, and several expert workmen, we went about to survey the general decay of that ancient and venerable church, and to set down in writing the particulars of what was fit to be done, with the charge thereof, giving our opinion from article to article. Finding the main building to recede outwards, it was the opinion of Mr. Chichley and Mr. Prat that it had been so built *ab origine* for an effect in perspective, in regard of the height; but I was, with Dr. Wren, quite of another judgment, and so we entered it; we plumed the uprights in several places."

The æsthetic effect and optical interest of the widening refinement are well illustrated in St. Patrick's Cathedral. In lofty cathedrals the convergence due to perspective tends to produce a contracted and spindling effect, which is counteracted by this arrangement. Perhaps the cathedrals of Cologne and Tours may be cited as illustrations of the bad effects due to its absence. On the other hand, the widening refinement is also found in churches of the Byzantine and Romanesque periods, which have low proportions; and it was from these churches that it passed to the more lofty ones of the Gothic period. In some cases, it is confined to the apse; for instance, in the Church of St. Irene, at Constantinople, where this refinement has been observed by Professor A. D. F. Hamlin, Professor of Architectural History in the Columbia University School of Architecture. This is also the case in St. Demetrius at Salonica. In the Balaban Aja Mesdschid, at Constantinople, the apse is only twelve feet high. Thus the theory that this refinement was wholly intended to correct perspective convergence cannot well be accepted as a general explanation. The best explanation

appears to lie in the optical interest of the attenuated horseshoe form, in the more spacious effect obtained for the upper nave, and in the subtle and graceful transition to the arch which is effected by the outward expansion of its supporting lines.

The optical interest of the bends or apparent curvatures, where they are employed, is very obvious. This may be easily remarked in St. Patrick's, and at Rheims and Amiens, and is very obvious in St. Marks, at Venice, and in Sta. Sophia, at Constantinople. The counteraction of perspective convergence is undoubtedly a great advantage in a large number of cases. Mr. Ross Turner, In-

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structor in design in the Massachusetts Institute of Technology, has made independent observations of this refinement at the crossing of Notre-Dame at Paris, and has made the pregnant suggestion that it "removes the vanishing point to infinity."

It is an obvious reflection that vaulting thrust might cause a wholly accidental widening refinement. No doubt, it may have done so in some cases, and, no doubt, it has exaggerated the original construction in other cases. Most of the photographs of the Brooklyn Museum series are intended to serve as controversial documents on this subject. Since my observations on behalf of the Brooklyn Museum, as now photographed, demonstrably include a large number of churches which widen in absolutely straight lines, either with or without the single bend at the arcade capitals, the objections due to the supposed action of vaulting thrust have

been materially weakened. The photographs from Rheims and from Amiens shows that the widening includes the spandrels of the nave arcades. This is also the case in St. Patrick's. The aisle thrust toward the nave and the great weight of the aisle vaulting make it impossible for the much higher nave vaulting to thrust downward in straight lines and to operate on these surfaces in straight lines as far down as the capitals of the arcades. Thus, thrust of the nave vaulting would tend to produce bending lines rather than straight inclinations above the level of the aisle vaulting. This argument applies with still greater force when the widening rises in straight lines from the pavement, as in St. Ouen at Rouen, and many other cases. It may also be remarked that the outward inclination in the vaulting shafts at Rheims is only one-eighth part of the diameter of the shaft. At Amiens the inclination is about one-seventh part of the diameter of the shaft. Such relatively insignificant inclinations do not affect the centre of gravity of the pier, nor do they tend to weaken the stability of the church.

These general facts and general arguments having thus been reviewed, we may now turn to the Dublin cathedrals, and first to the bays of the nave in St. Patrick's, as distinct from the crossing piers. Out of eight bays in the nave the refinement is confined to the bays next to the crossing piers—four on the north or left side of the nave, and two on the right side. All the remaining piers and vaulting shafts toward the west are perpendicular. This curious fact, not known to exist in any other medieval church, is probably to be explained by the re-building of part of the nave which followed the destructive fire of 1380. That such re-building actually took place is part of the known history of the church. As many old churches are absolutely perpendicular—for instance, the Cathedral of Cashel—we must imagine here that the reconstruction was the work of a school of masons who were not addicted to the system. There also is no doubt that the widening system was beginning to be abandoned in all parts of Europe during the fifteenth century, as it disappeared entirely during the sixteenth century.

On both sides of the church, for the given bays, the recessions begin at the same corre-



FIG. 3. ST. PATRICK'S, DUBLIN

THE NAVE, WITH PLUMB-LINES SHOWING THE WIDENING REFINEMENT AND BEND TOWARD THE PERPENDICULAR NEAR THE CROSSING, SOUTH WALL (RIGHT SIDE). PHOTOGRAPHED FOR THE BROOKLYN MUSEUM SURVEYS OF MEDIEVAL BUILDINGS.



FIG. 4. ST. PATRICK'S, DUBLIN

DETAIL OF THE ARCADES AND NORTH WALL NEAR THE CROSSING, WITH THREE PLUMB-LINES SHOWING THE WIDENING REFINEMENT. PHOTOGRAPHED FOR THE BROOKLYN MUSEUM SURVEYS OF MEDIEVAL BUILDINGS.

sponding point—viz., at the height of the capitals. Thus the piers, as distinct from the vaulting shafts, are perpendicular. The vaulting shafts bend outward at the height of the pier capitals, and their recessions are in straight lines. Thus the refinement follows the particular system described in our introductory remarks as holding at Rheims, Amiens, and Laon. Therefore, the same argument also applies as regards constructive design which has been mentioned as holding for this particular system in other churches.

On the left side of St. Patrick's the diver-

gence from the perpendicular amounts to about seven inches in a height of about 39 feet, up to the springing of the vaulting. On the right side a new and important feature is found. The inclinations begin at the same relative point, and have the same relative pitch, but they stop where the clerestory begins—at the window sills of the clerestory, which is also marked in this church by a horizontal string-course or fillet. Above this string-course the vaulting shafts (two in number, and next the crossing pier, it will be remembered) have a sharp bend to the perpendicular. This curious fact may be due to a re-building of the clerestory, which included all the bays of the south side, or it may date from the original construction.

We now reach the crossing piers, where the recession diminishes to about $3\frac{3}{4}$ inches on the north side, and is a little more than one inch on the south side. In the south side pier there is a slight bulge toward the nave, so that the deflection of the curvature from a straight line is about $2\frac{1}{2}$ inches. The word curvature is used intentionally as applied to the crossing piers; the optical effect is that of curvature, and the recession in straight lines which has been emphasized for the

nave vaulting-shafts is not found in the crossing piers. The so-called curvature is, however, really rather a bend than a uniform curvature. The eastern crossing piers correspond to their western counterparts.

Many churches have an independent widening system in the transepts which intersects the nave system. In some churches the intersecting transept system is confined to the crossing piers which thus (or in either case) actually lean out in a diagonal direction, when either the nave or the transepts are considered independently. The western crossing piers of St. Patrick's have this in-

intersecting system. They bend away from the transepts just as they do from the nave. The recession, as regards the transepts, is about $11\frac{1}{2}$ inches in the northwest crossing pier, and about 2 inches in the southwest pier. Both transepts have been so much repaired or rebuilt that it is now impossible to say whether they ever had an intersecting system of widening beyond the crossing.

One of the most remarkable points in St. Patrick's is the fact that the eastern crossing piers do not have the intersecting system of widening. They are perpendicular when viewed from north to south, or from south to north. This fact can only be explained by a change in the school of masons or in the plans of the master-builder, during construction. There is nothing to show, as far as is known to me, that any of the crossing piers have been subjected to later restoration or rebuilding.

It has been a universal opinion that the marked outward recession of the north clerestory wall and vaulting shafts of Christ Church, Dublin, is due to the accident which brought down the vaulting in the sixteenth century. But this universal opinion has not been advised of the existence of many churches, which have the widening refinement, whose vaultings have not fallen, and which resemble St. Patrick's in all other particulars. Fissures of relatively slight amount are sufficient to bring down a vaulting. Murray's Guide Book for Ireland states that the inclination of the north wall of Christ Church is 2 feet. Recent photographic measurements give the result that it is between 11 and 12 inches at the third pier from the crossing, and it is not stronger elsewhere; but an accidental inclination of only three or four inches might easily cause the downfall of a church. A few years ago the

whole city of Venice was in spasms because there was a fissure of less than three inches in the vaulting of the Church of the Frari. The widening refinement is no insurance against accidents. If, as is believed by some, it occurs in all parts of Europe, and in a large number of churches, it is evident that many of these churches must have been exposed to the dilapidation or downfall of their vaultings, and it is equally evident that as long as all inclinations are attributed to accident, so long the widening refinement will be held responsible for accidents to which it can have no possible relation.

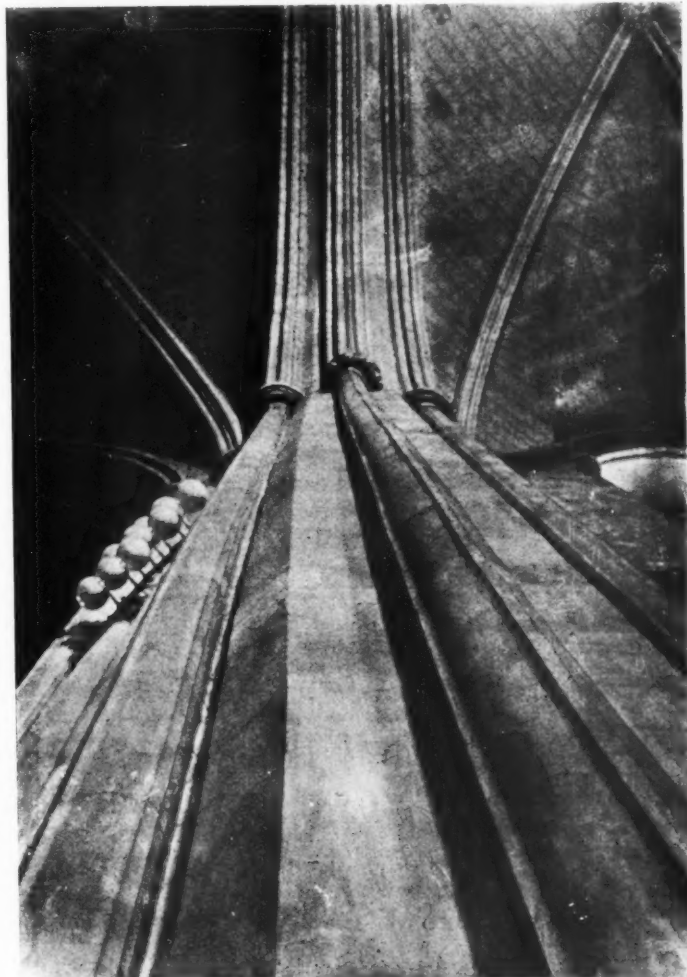


FIG. 5. ST. PATRICK'S, DUBLIN

THE SOUTH-WEST CROSSING PIER, NORTH SIDE, LOOKING UPWARDS; THE TRANSEPT IS ON THE LEFT, NAVE ON THE RIGHT. THIS VIEW SHOWS CURVATURE AWAY FROM THE TRANSEPT AND TOWARD THE NAVE. PHOTOGRAPHED FOR THE BROOKLYN MUSEUM SURVEYS OF MEDIEVAL BUILDINGS.

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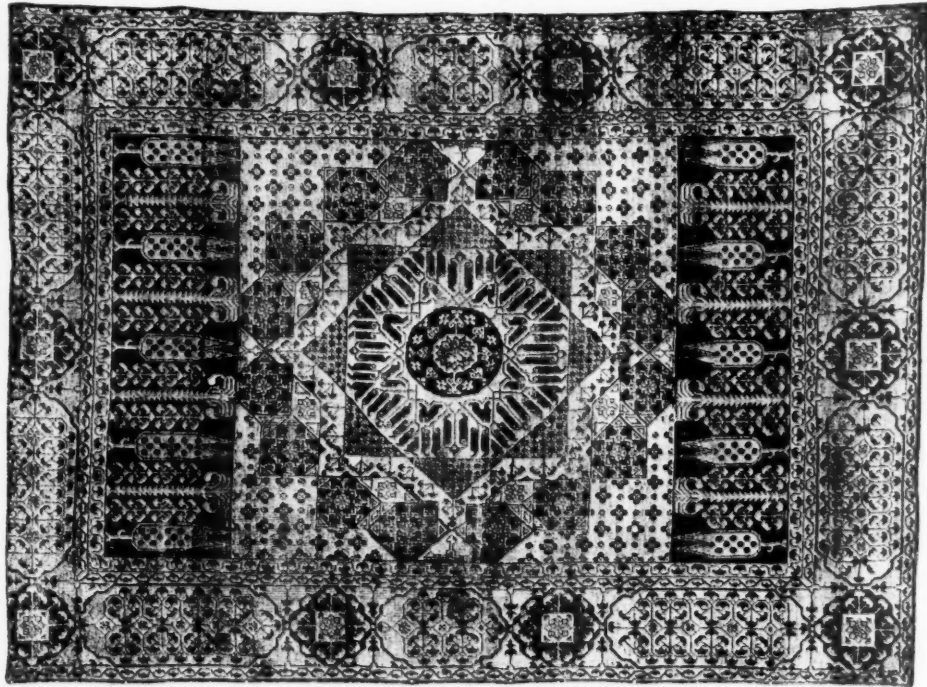
ORIENTAL RUGS

To the uninformed there is a certain mysticism about a well authenticated antique Eastern rug. Its irregularity of design and the hieroglyphics that dominate its pattern convey to the average observer as little impression of their actual meaning as would a Coptic inscription to all but the savant.

We associate with its origin and use in the country where a rug was woven a romanticism that has all the glamour of an Arabian Nights' tale. But to the man who knows rugs, who has visited the far East and studied them in the places where

the interiors of buildings, just in the same way that they are used today.

Timur the Lame, sometimes called Tamerlane, the conquerer of Tartary, who lived in the early part of the fourteenth century, is said to have turned his desert tents to the most palatial of dwellings, by the use of rugs. Pliny has dwelt at length on the wondrous skill of the Assyrians in the harmonious blending of colors in the woven rugs made by that people. Through all the many centuries since rugs first became known, they have in the respective nations and localities of their origin been practically unchanged in weave and color. Each nation or tribe



XIV CENTURY DAMASCUS RUG

THIS IS A VERY BEAUTIFUL, SOFT, GREEN AND RED TEXTILE, THE MOTIFS OF WHICH WERE TAKEN FROM THE OLD CHALDEAN SUN WORSHIPPERS.

they are woven, they are no longer a sealed book. Each reveals in its characteristics the story of its origin, and also proclaims its value.

Oriental rugs were known to the Egyptian and the Assyrian. Greek and Rome, those countries of the then highest known culture, used oriental rugs to soften the austerity of

has, from generation to generation, followed fixed characteristics of design, and those certain harmonies of color that have distinguished the rugs of their ancestors. Since rugs have now become so prominent in their use as furnishings and the decorative treatment of modern interiors, it is of interest to acquire some knowledge

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of them as tending to give added enjoyment and satisfaction in their selection and possession.

The selection of "pure colors" in the first instance makes the new rug less desirable than an antique. When after years of use and exposure, the genuine rug, woven from the best of material and stained with dyes, the secret of whose making has rarely been imparted, the original brilliancy has given place to most wonderful greys, an antique rug becomes "a thing of beauty and a joy forever."

Religion has been the source of inspiration for much of the art that has come down to us. It was through religious fervor that rugs attained their matchless beauty and reached the present high state of artistic perfection. In time, rugs assumed a ceremonial purpose, each kind and shape having its proper ceremonial use, either in the mosque or at home in the many forms of worship that is part of the every-day life of a Mohammedan family. The principal rugs were the Prayer Rug and the Bath Rug. In addition there were many varying shapes employed on ceremonial occasions, and were light in weight or heavy as occasion might require to meet the conditions under which they were to be used.

The Prayer Rug, or *Namazlik*, probably the most important adjunct in the daily life of the follower of the prophet, was an object of such constant and personal use and daily association with religious life, it was natural that in its production the weaver should expend on it his utmost skill and care. Prayer rugs are easily recognized by the niche, or inverted V design that is always woven in one end of the rug and which is said to symbolize the *Mihrab*, or niche in the sacred mosque at Mecca.

A piece of clay from Mecca is sometimes rolled in the rug and at times of prayer is placed in the "niche", or as is often the case a black spot, to represent this piece of clay, is woven into the rug at the "niche" end, in memory of the stone given to Abraham by the Angel Gabriel.

For hangings or draperies, rugs of lighter weight and looser weave are employed than those used for floor rugs. In the better qualities silk is often used in place of the more common wool. These *Perdelik*, as



EARLY XIX CENTURY KAZAK PRAYER RUG

THE DESIGN IN THIS PIECE IS INTERPRETED WITH RARE FIDELITY TO THE OLD COSSACK TRADITIONS; THE WINE-GLASS BORDER IS VERY SIMPLY DRAWN BUT BALANCES, BOTH PHYSICALLY AND ARTISTICALLY THE ORNAMENT, FORMING A DETAIL OF THE CENTRAL RESERVE.

they are called, are extensively used and the Kelims or Kiskelims are among the best known examples. These are rectangular in shape, and are often used in

Bath rugs are the source of many of the "antiques" that reach this country. The constant wear and exposure to which they are subjected soon imparts to them that softness of texture and "greying" of color so eagerly sought by collectors and people of artistic taste in these matters.

Other forms of rugs known as "runners", are long strips used in the East to cover divans, often the only piece of furniture in an Oriental house; and "hearth rugs", used as their name indicates. These hearth rugs are in the tents of the nomads, a place of sanctuary, as custom rules that the stranger who places his foot on the hearth rug in the tent of an Arab chief, gains the protection of the whole tribe from any foes who might seek to injure him.

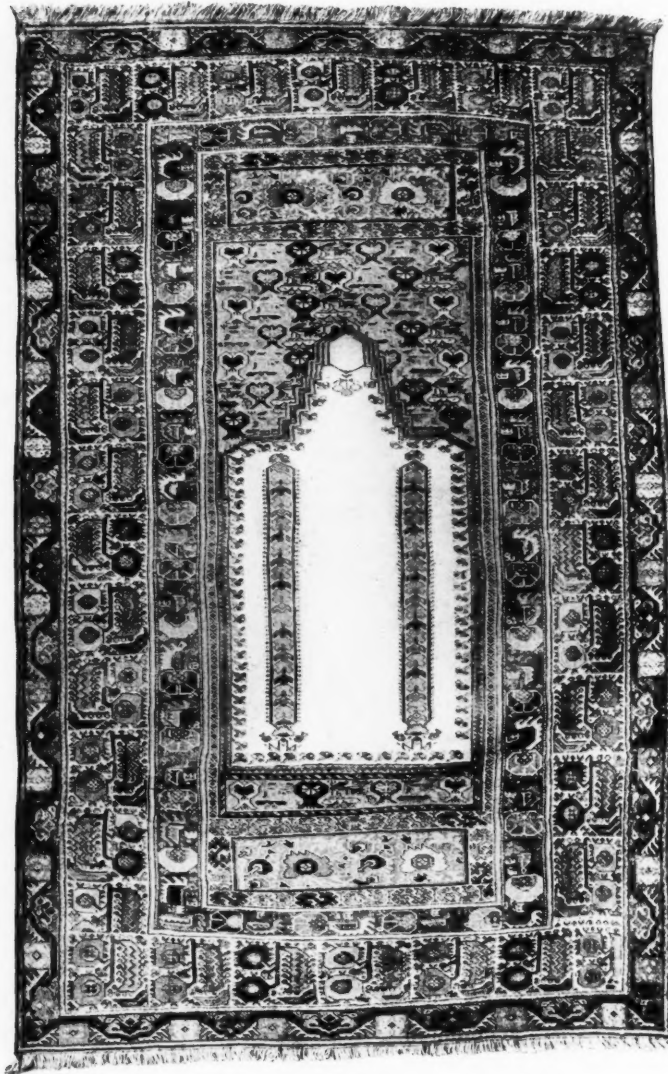
"Grave" rugs have a peculiar significance. Each member of the family participates in their weaving, as a general expression of affection for the departed. Cypress, willow and myrtle trees dominate the design. These are symbolical of an eternal life.

Symbolism is one of the hidden things in an Eastern rug, to all but the initiated. The collector finds that the symbols that dominate the design in rugs often impart to it as great a value as a unique specimen as the fine coloring, soft texture or intricate weave.

Unfortunately the story that the rug tells in the symbolism employed in its design is but little understood. In fact it

has been stated by travelers in the East, who have visited that country to study the manufacture of Oriental fabrics, that it is doubtful if the natives who introduce these symbols into the design comprehend the meaning they convey,

(Continued on page 51)

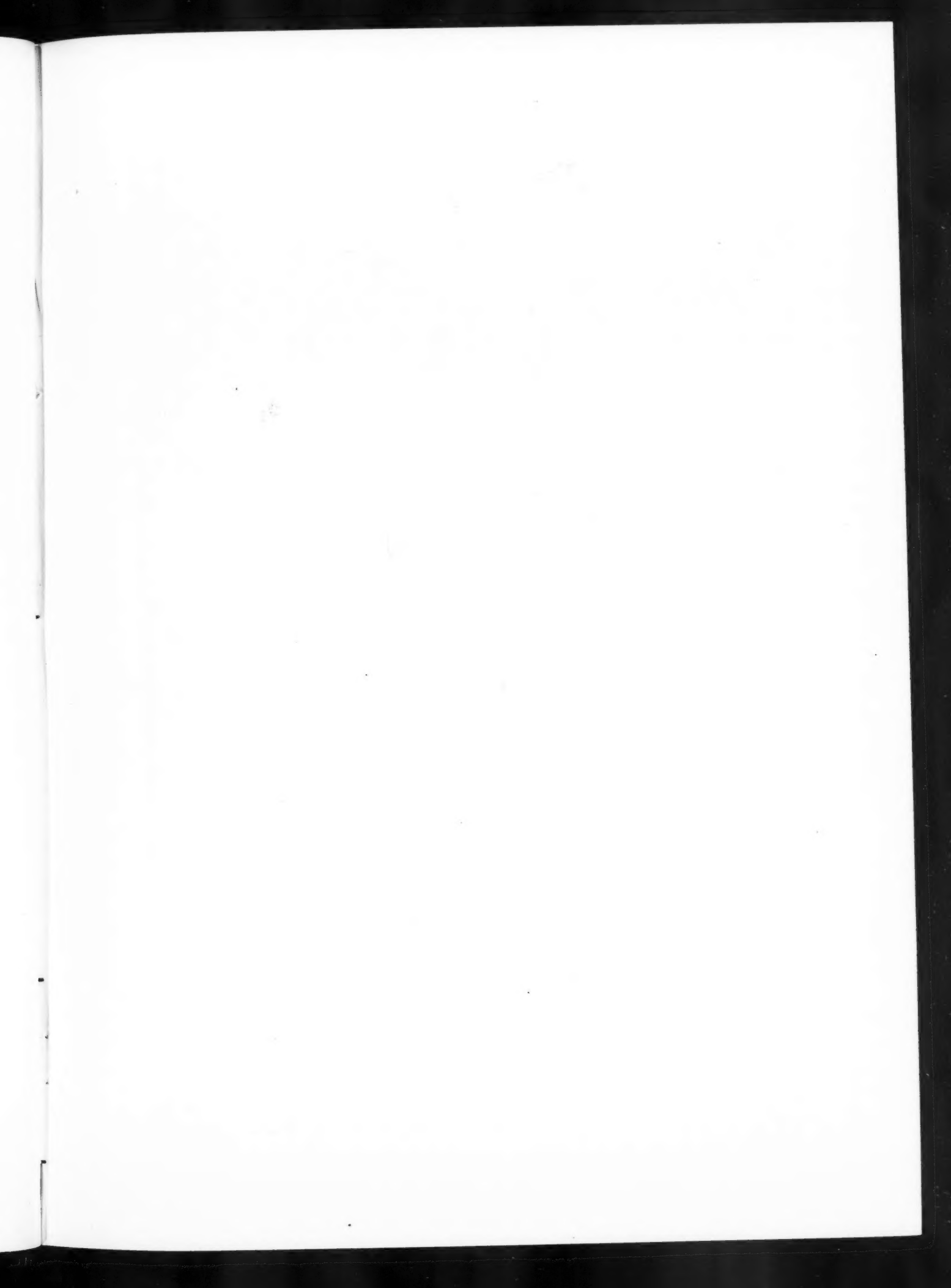


XVII CENTURY GHIORDES PRAYER RUG

IVORY PANEL SUPPORTED BY TWIN TEMPLE FRONT COLUMNS, THE MAIN BORDER IS A VERY INTERESTING INTERPRETATION OF THE TARANTULA PATTERN.

other countries than the East for couch covers and portieres.

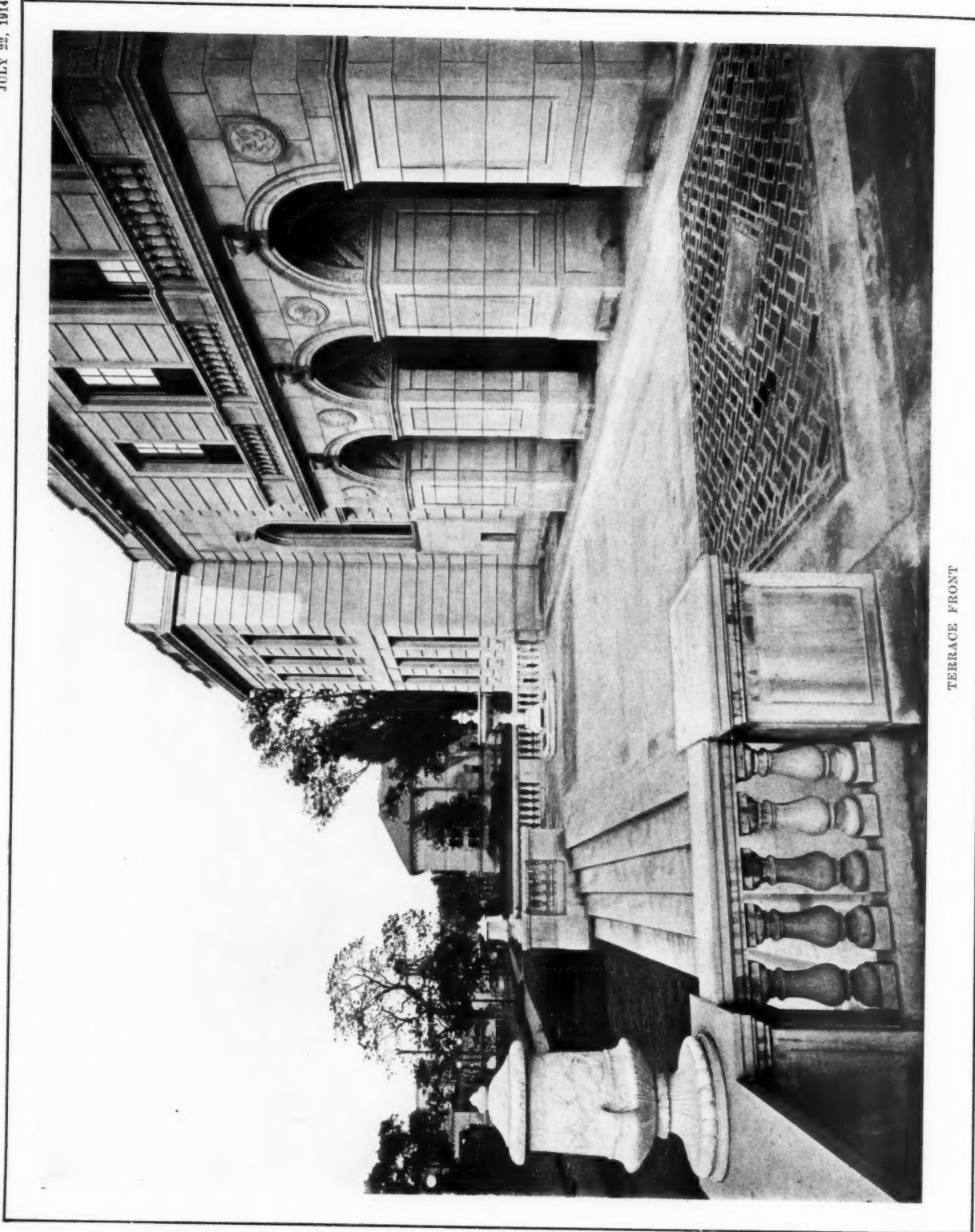
The so-called "Bath Rugs" or *Hamamlik* usually square in form, are not used, as might be supposed, in front of the bath tub, but as a floor covering in the outer or reception room of the public bath houses.





TOWN HALL, ARLINGTON, MASS.
MR. R. CLIPSTON STURGIS, ARCHITECT

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TERRACE FRONT

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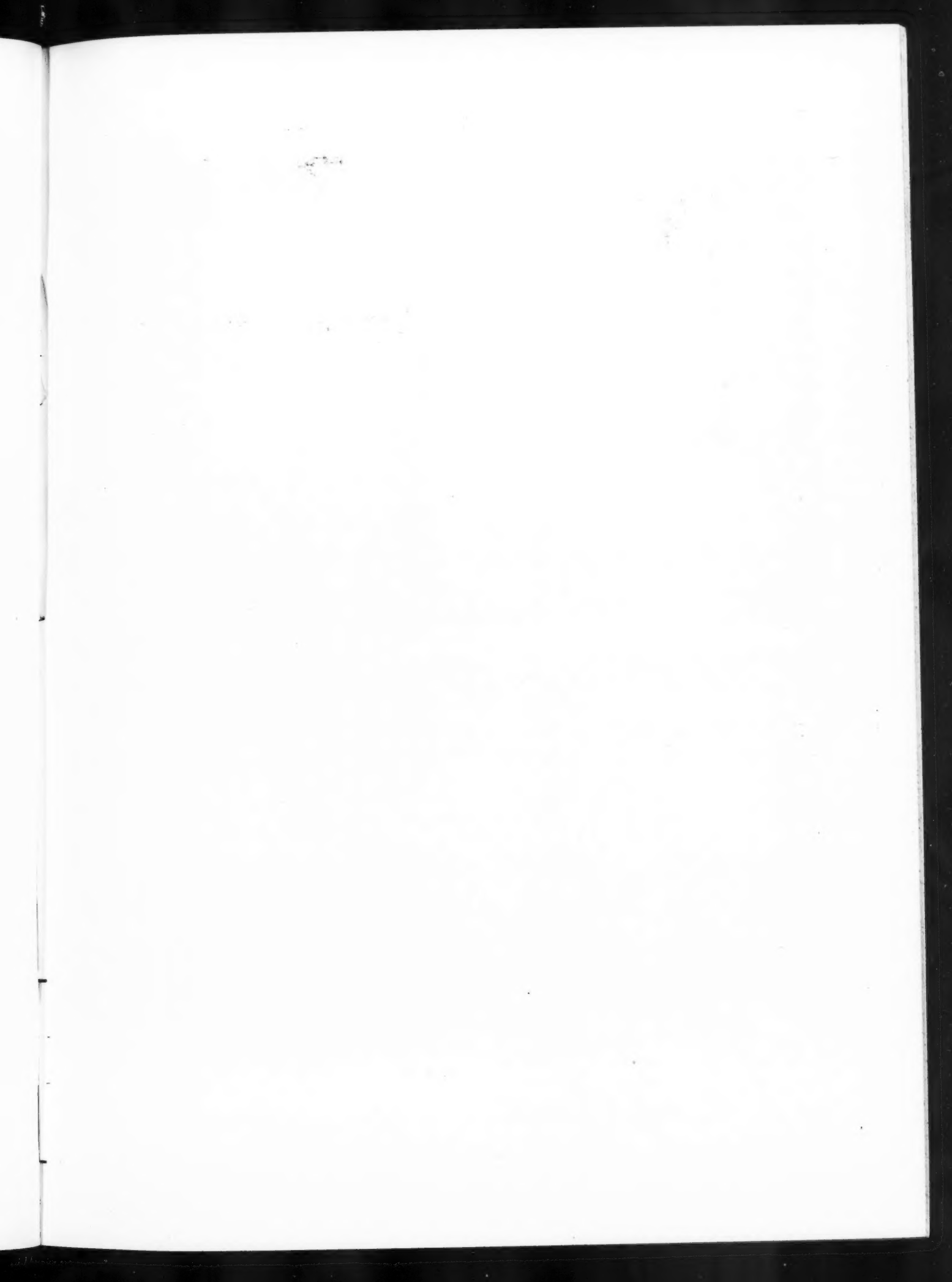


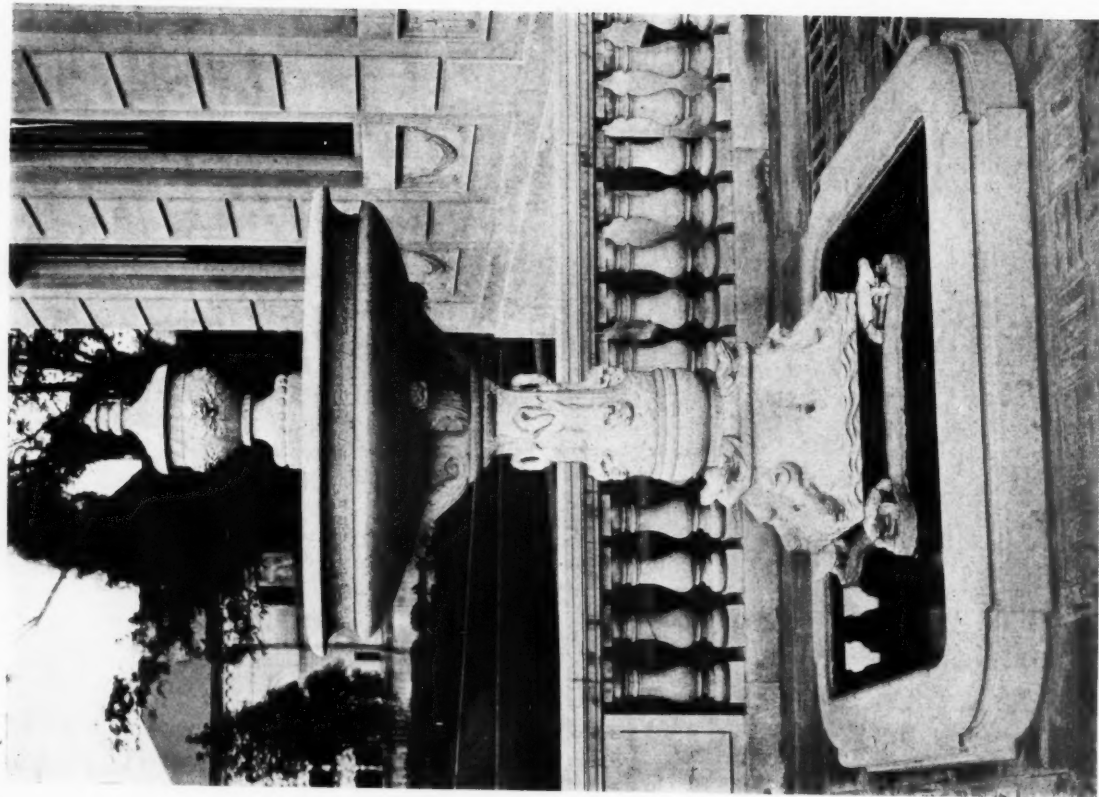
FLAGPOLE BASE

THE FOUR FIGURES, DESIGNED AND COMPOSED BY THE ARCHITECT, WERE UNDER HIS SUPERVISION, MODELED
BY C. E. DALLIN, SCULPTOR

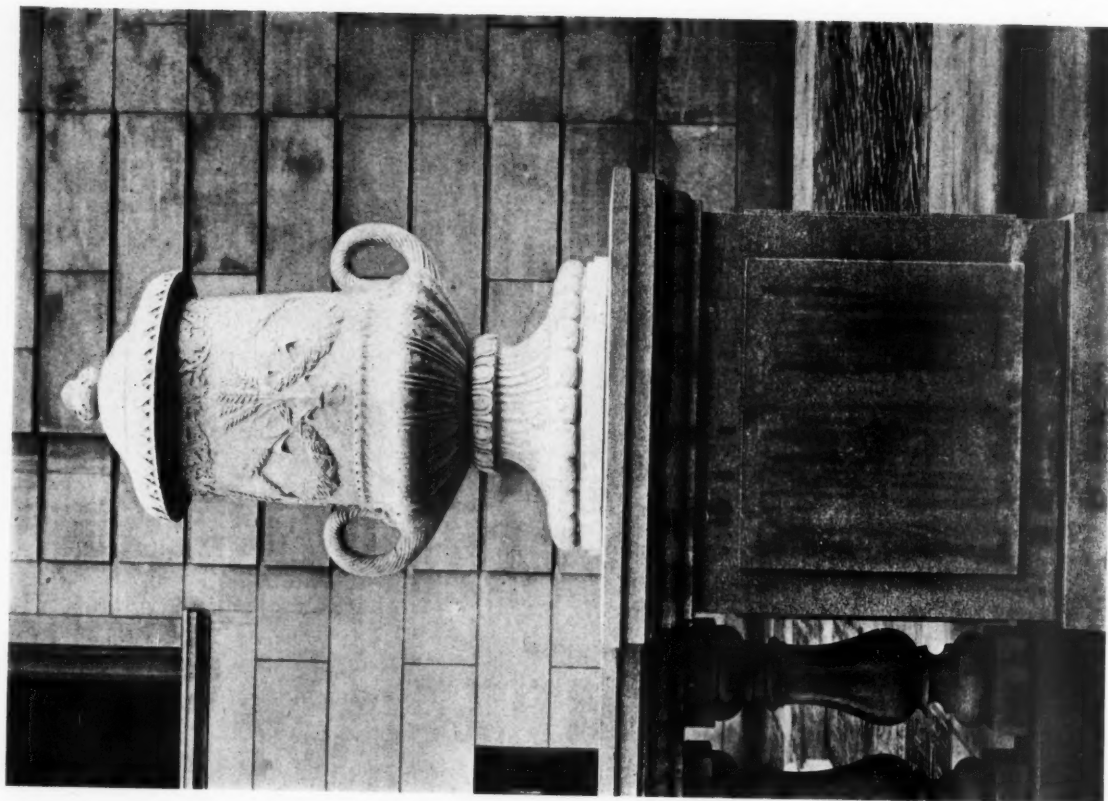
TOWN HALL, ARLINGTON, MASS.

MR. R. CLIPSTON STURGIS, ARCHITECT





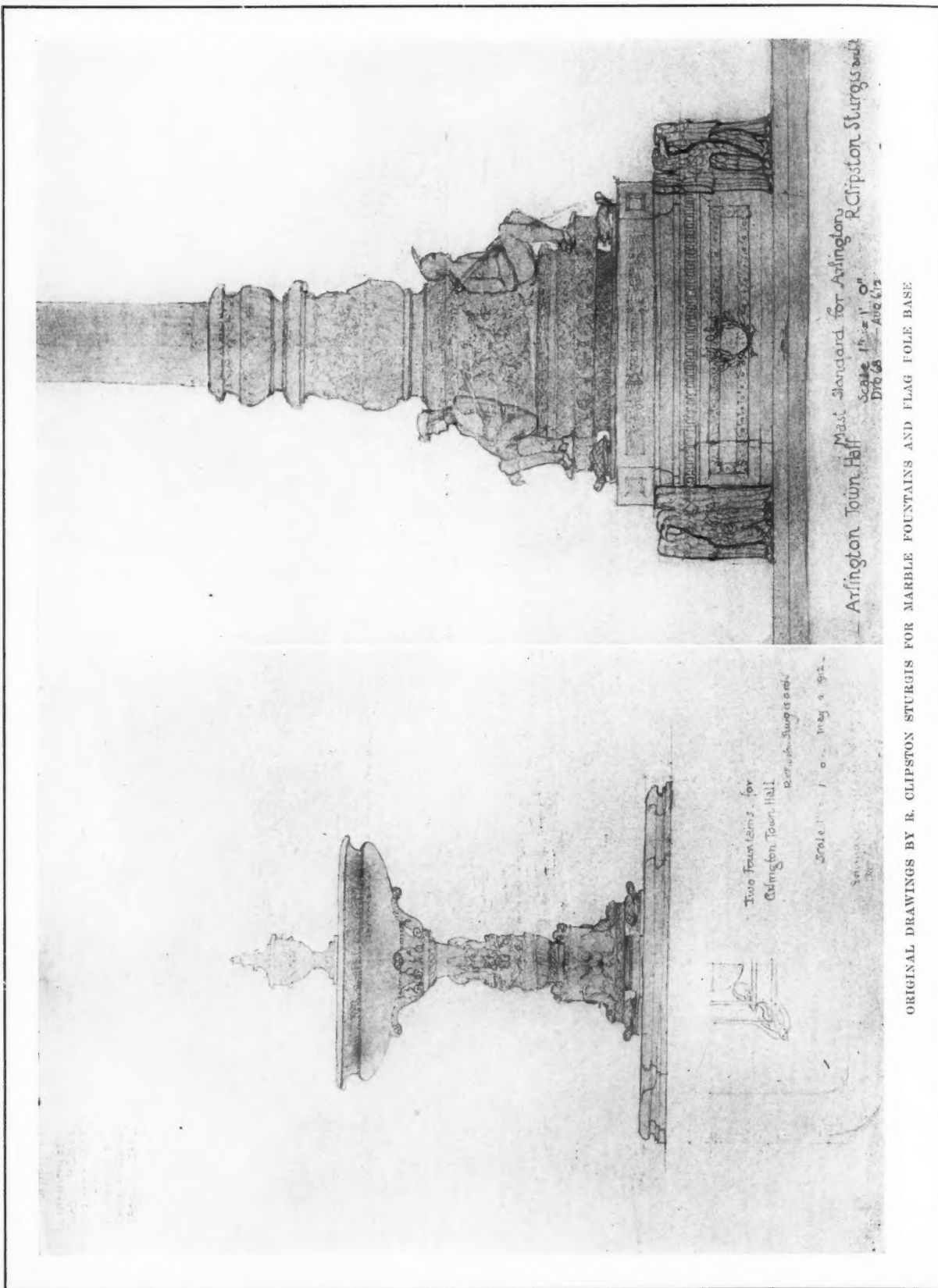
HAND-CUT MARBLE FOUNTAIN



HAND-CUT MARBLE VASE

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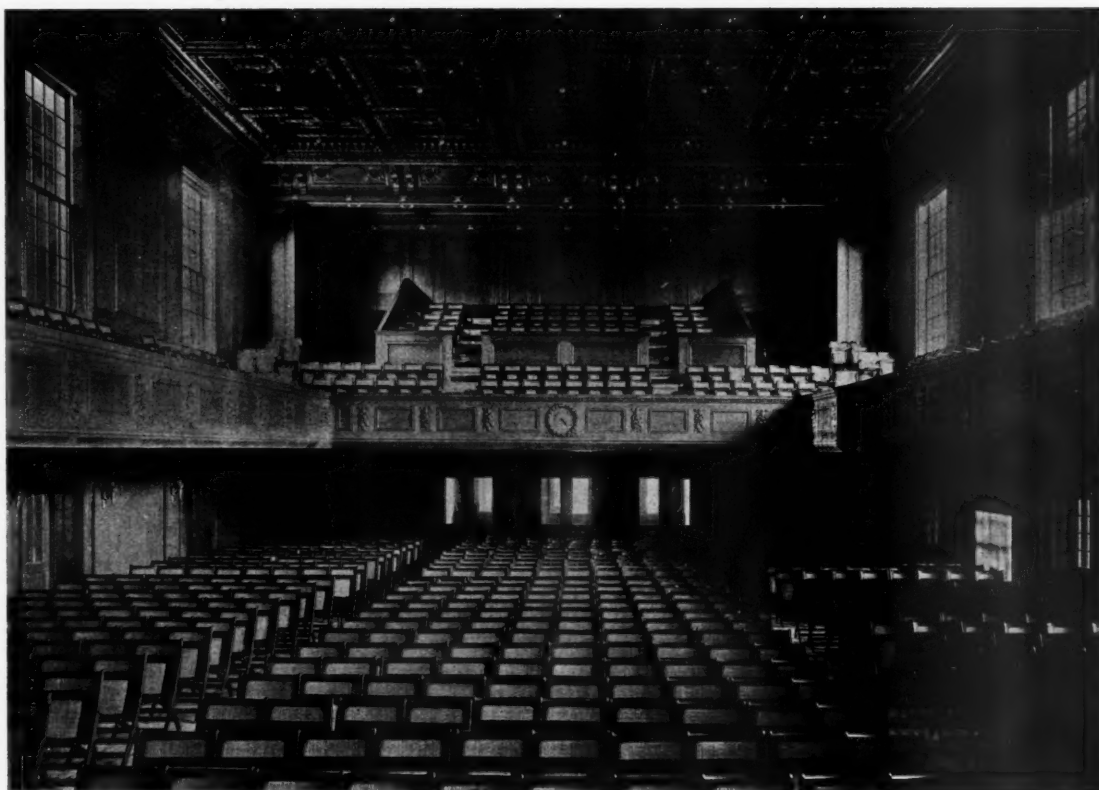
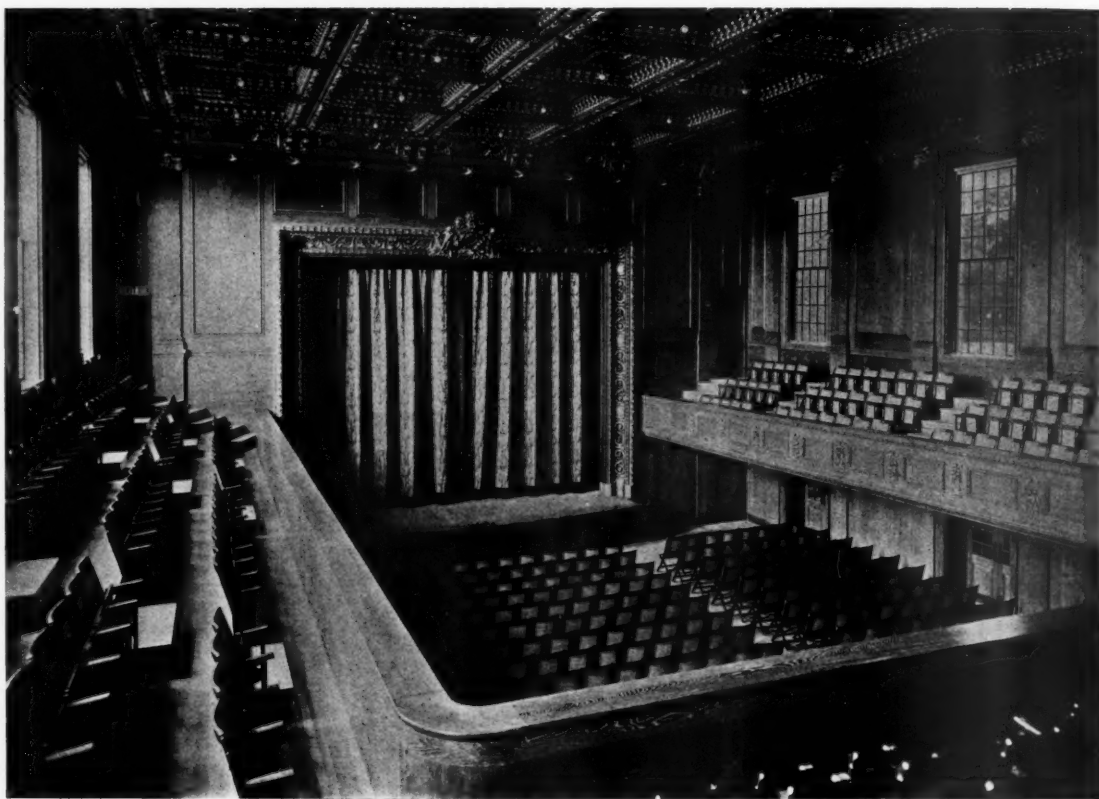
TOWN HALL, ARLINGTON, MASS.
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ORIGINAL DRAWINGS BY R. CLIPSTON STURGIS FOR MARBLE FOUNTAINS AND FLAG POLE BASE

TOWN HALL, ARLINGTON, MASS.
MR. R. CLIPSTON STURGIS, ARCHITECT

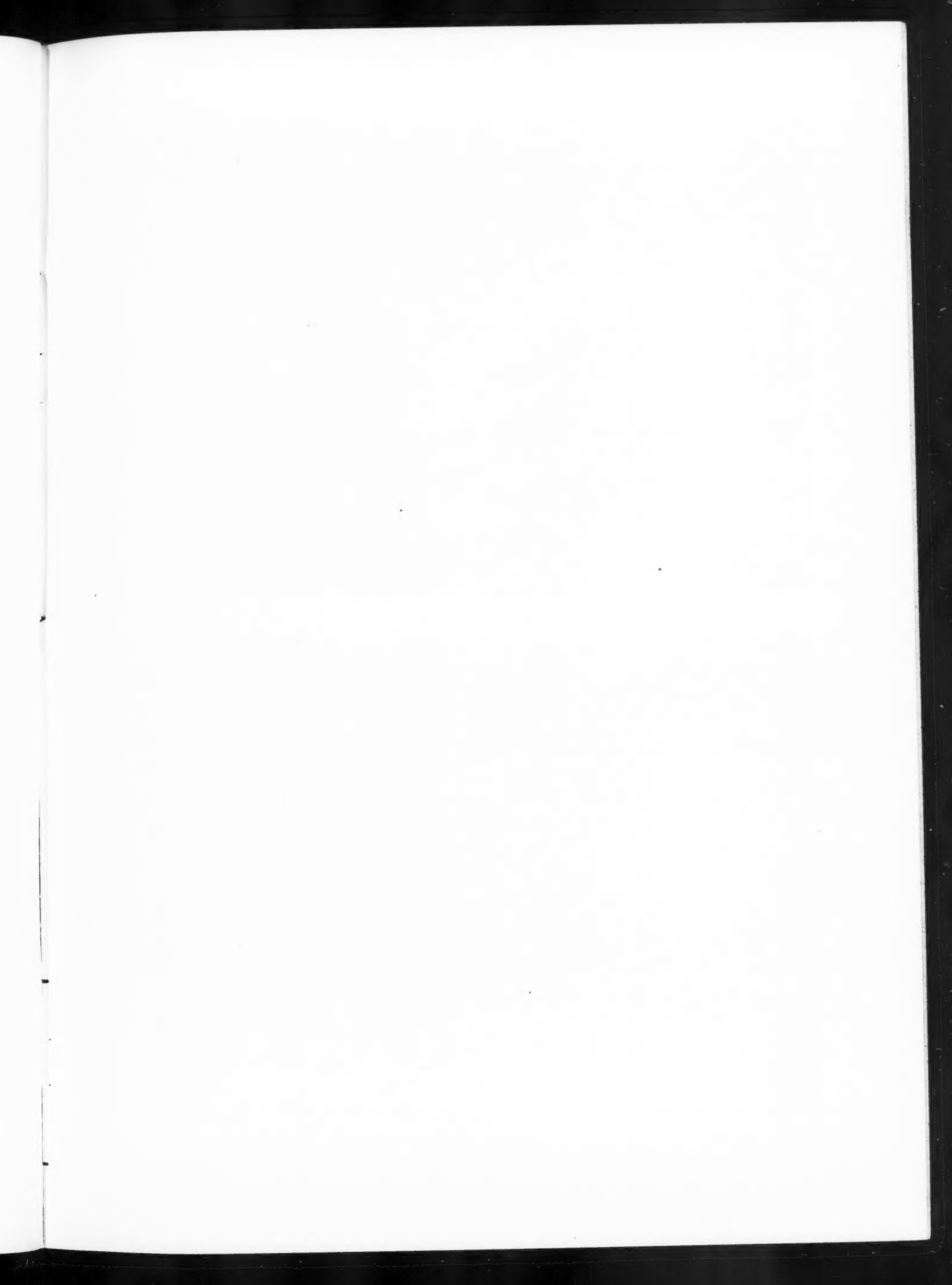
TOWN HALL, ARLINGTON, MASS.
MR. R. CLIPSTON STURGIS, ARCHITECT



INTERIOR VIEWS OF HALL

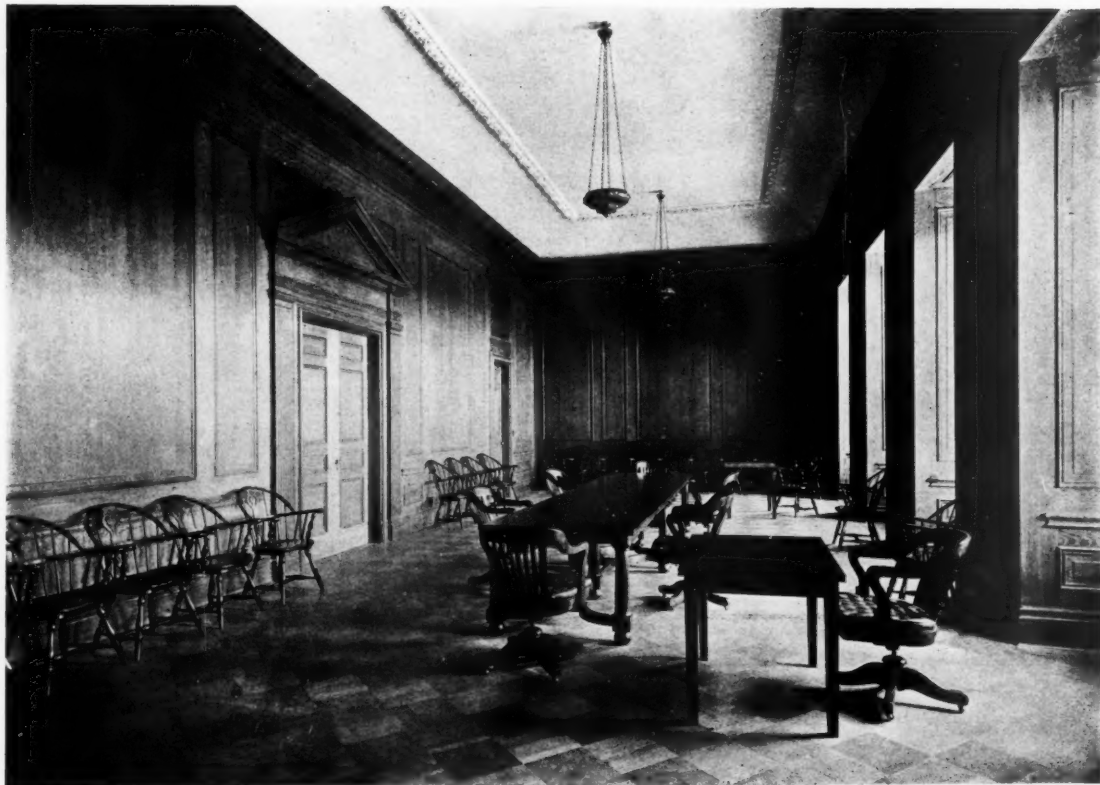
TOWN HALL, ARLINGTON, MASS.

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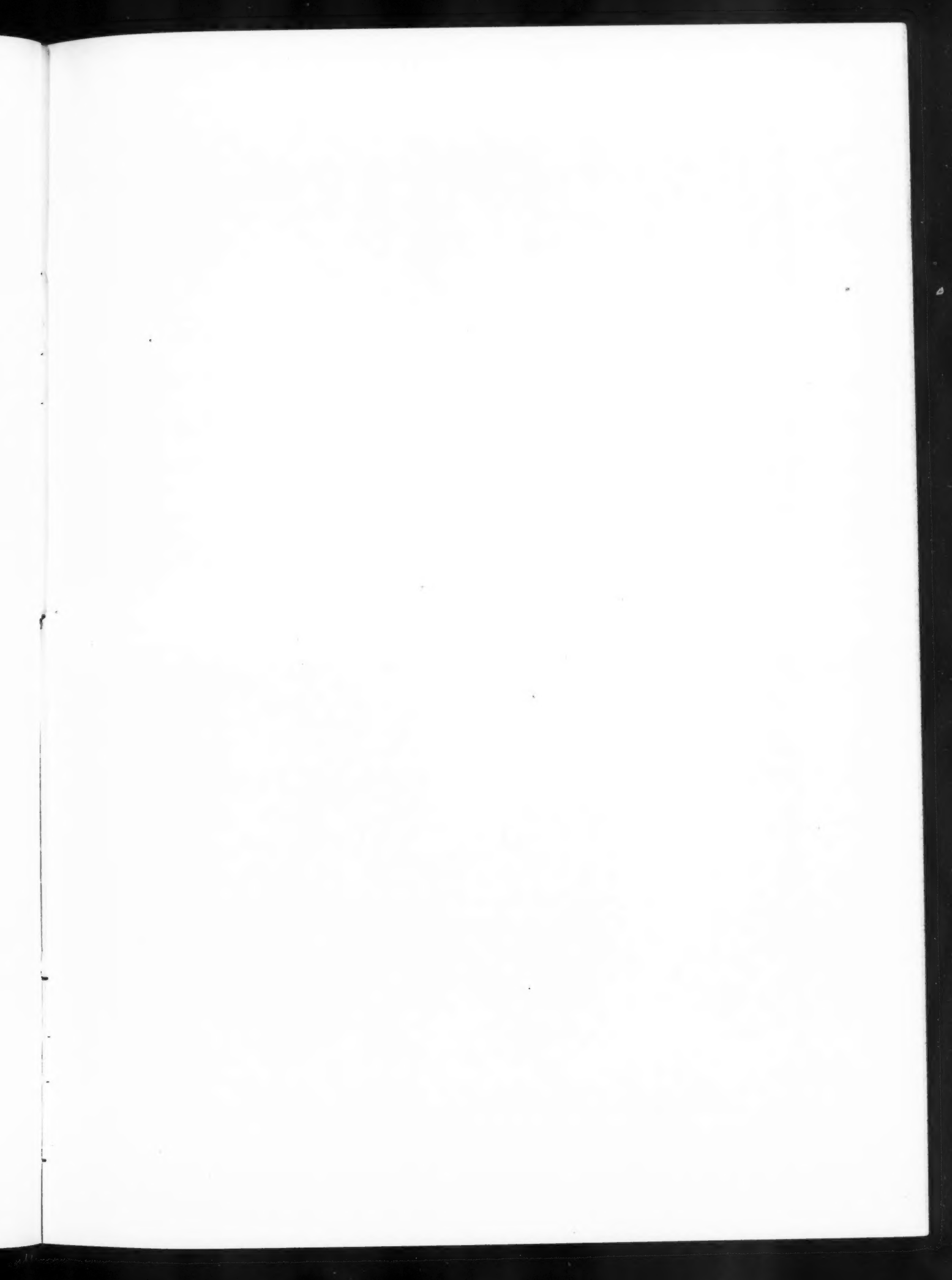
TOWN CLERK'S OFFICE

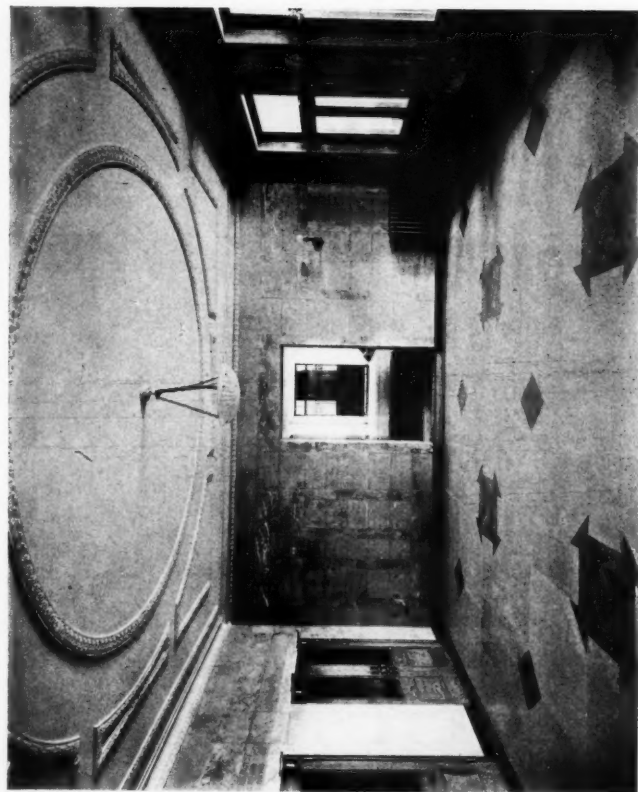
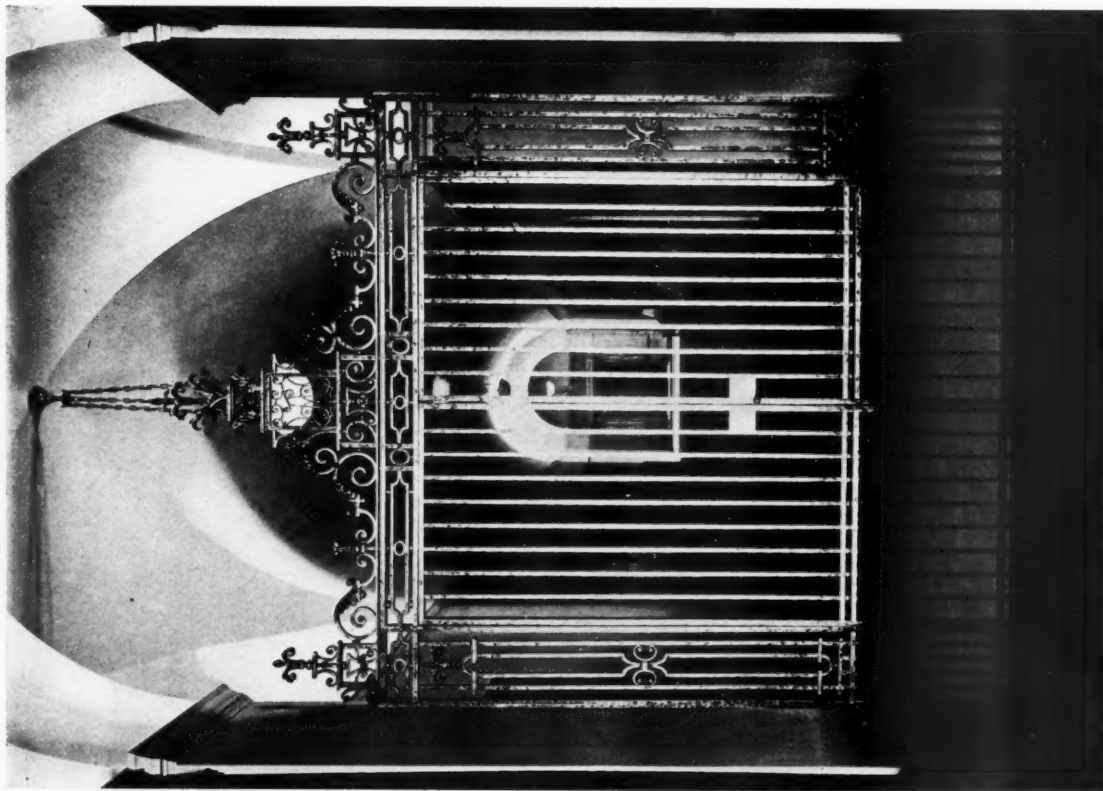


HEARING ROOM

TOWN HALL, ARLINGTON, MASS.

MR. R. CLIPSTON, STURGIS, ARCHITECT





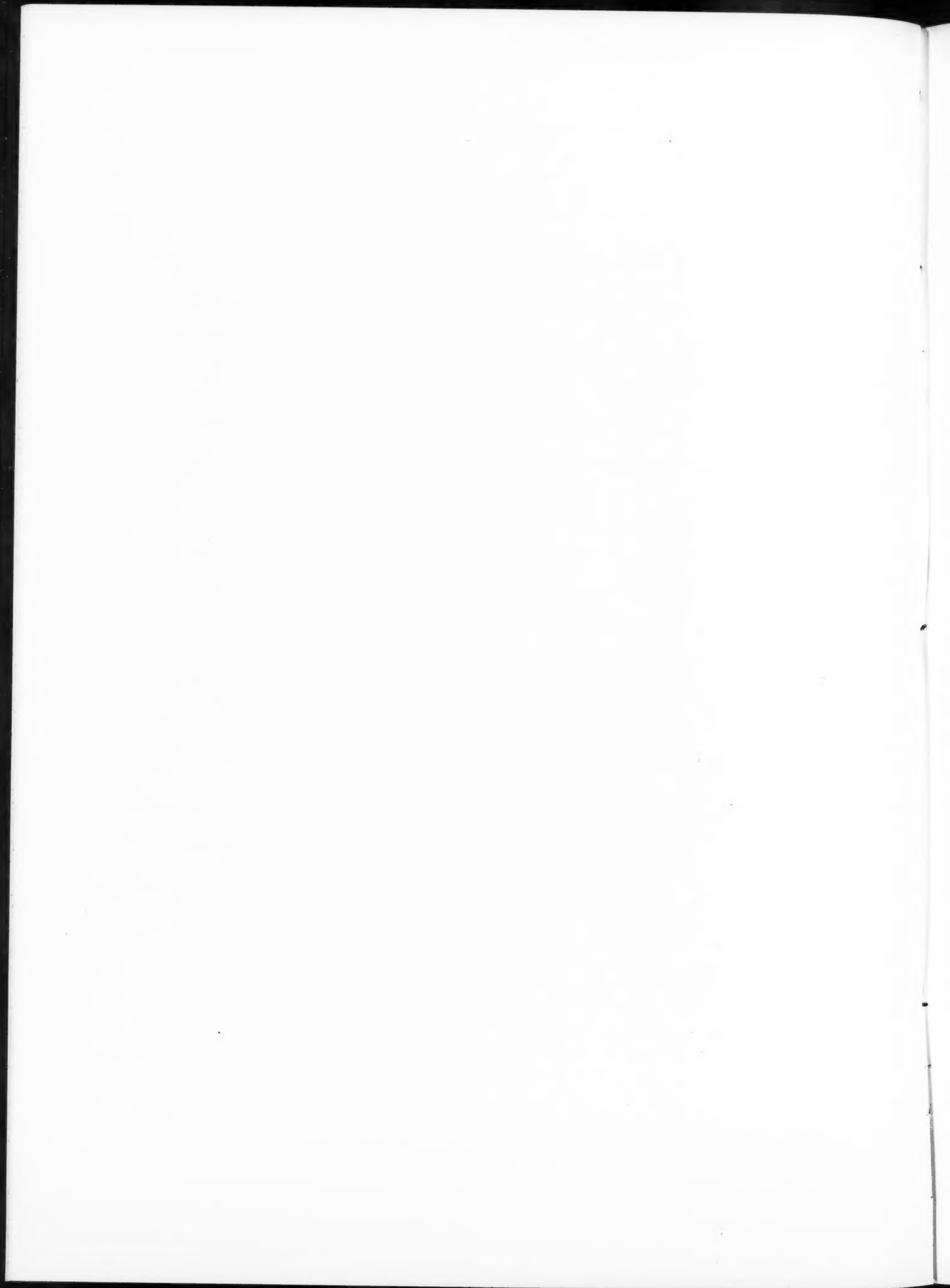
At left:—CUT STEEL GATES AT ENTRANCE TO TOWN CLERK'S OFFICE

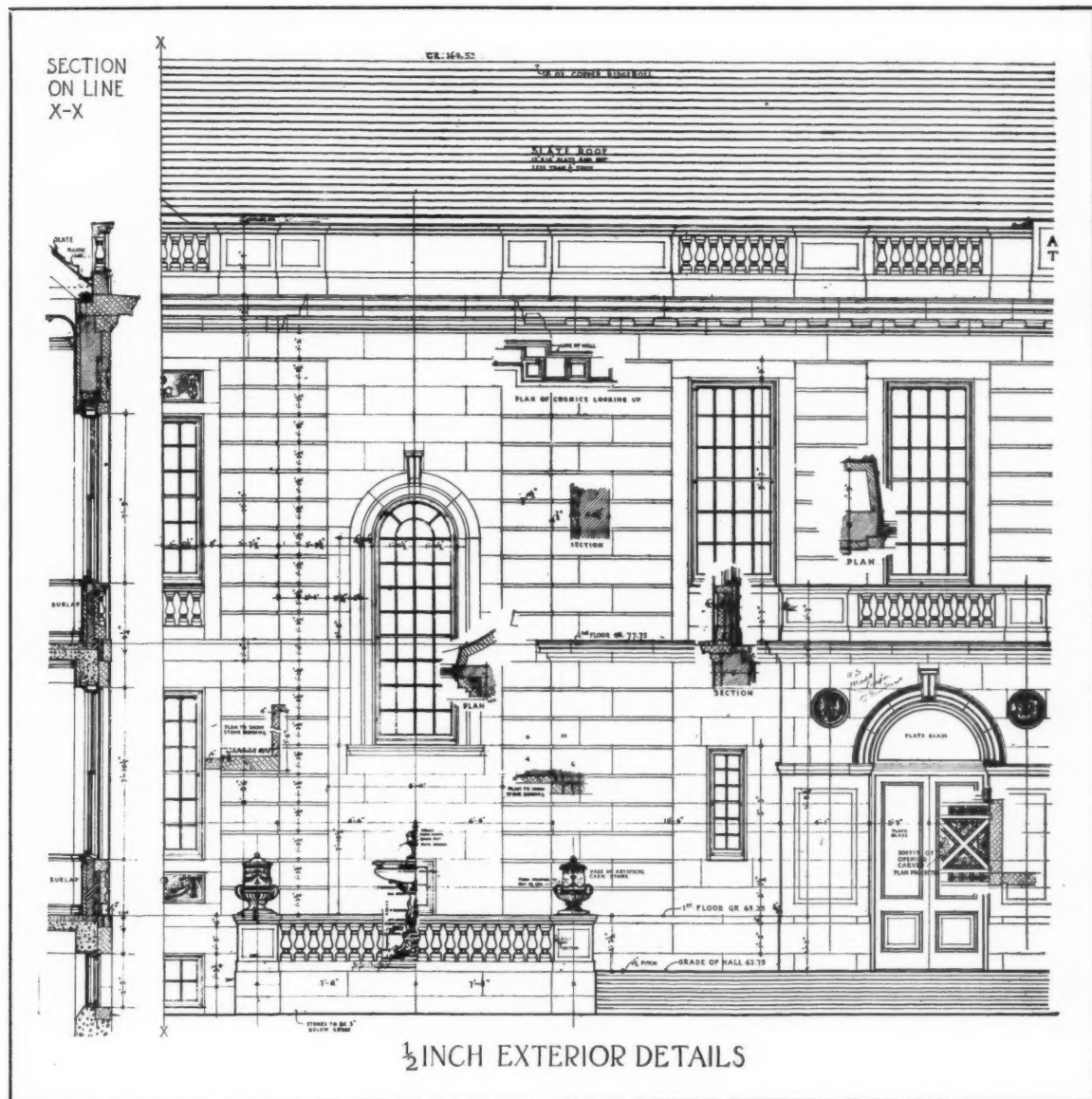
Above:—THE ENTRANCE LOBBY

TOWN HALL, ARLINGTON, MASS.

MR. R. CLIPSTON STURGIS, ARCHITECT

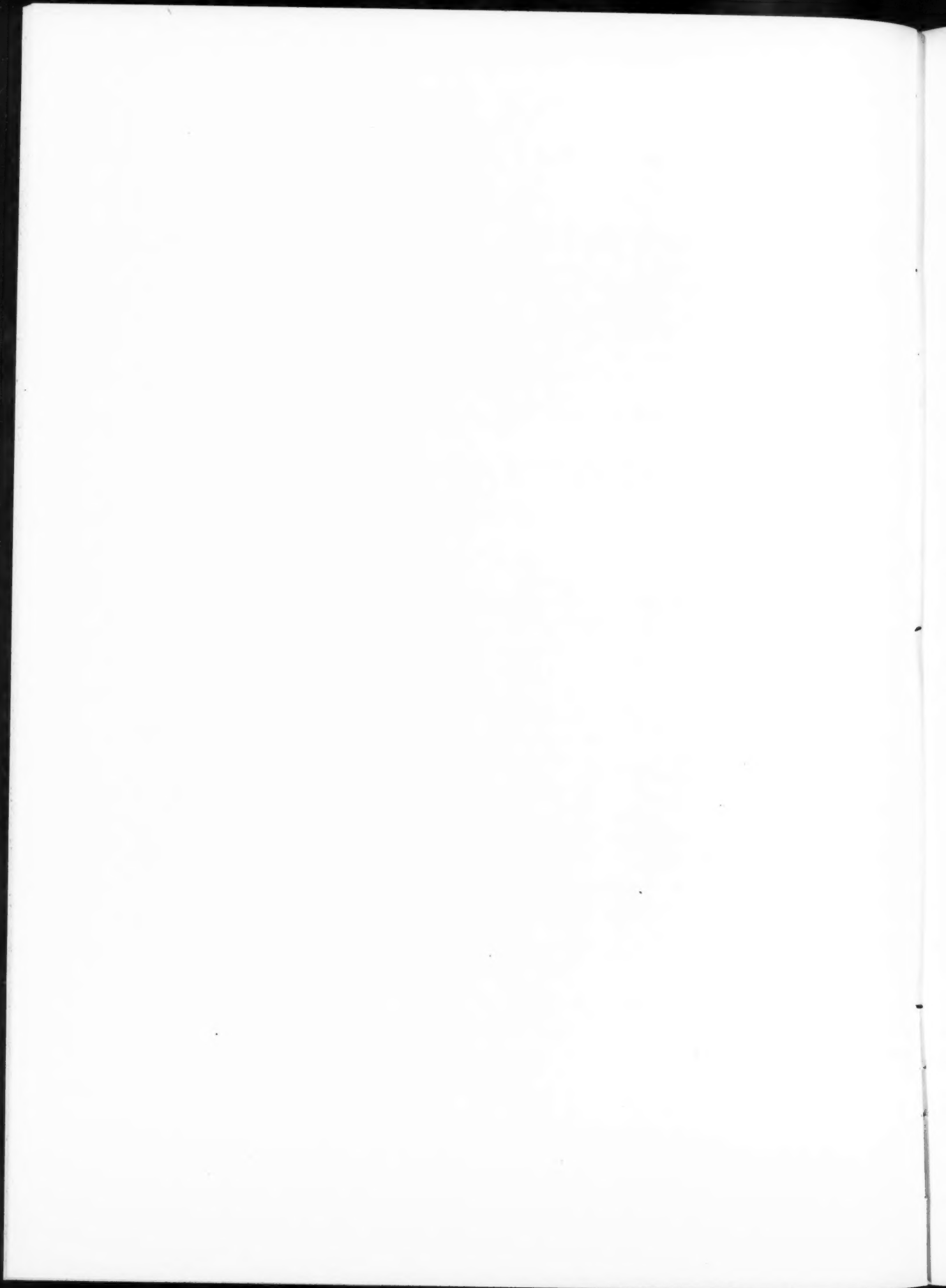


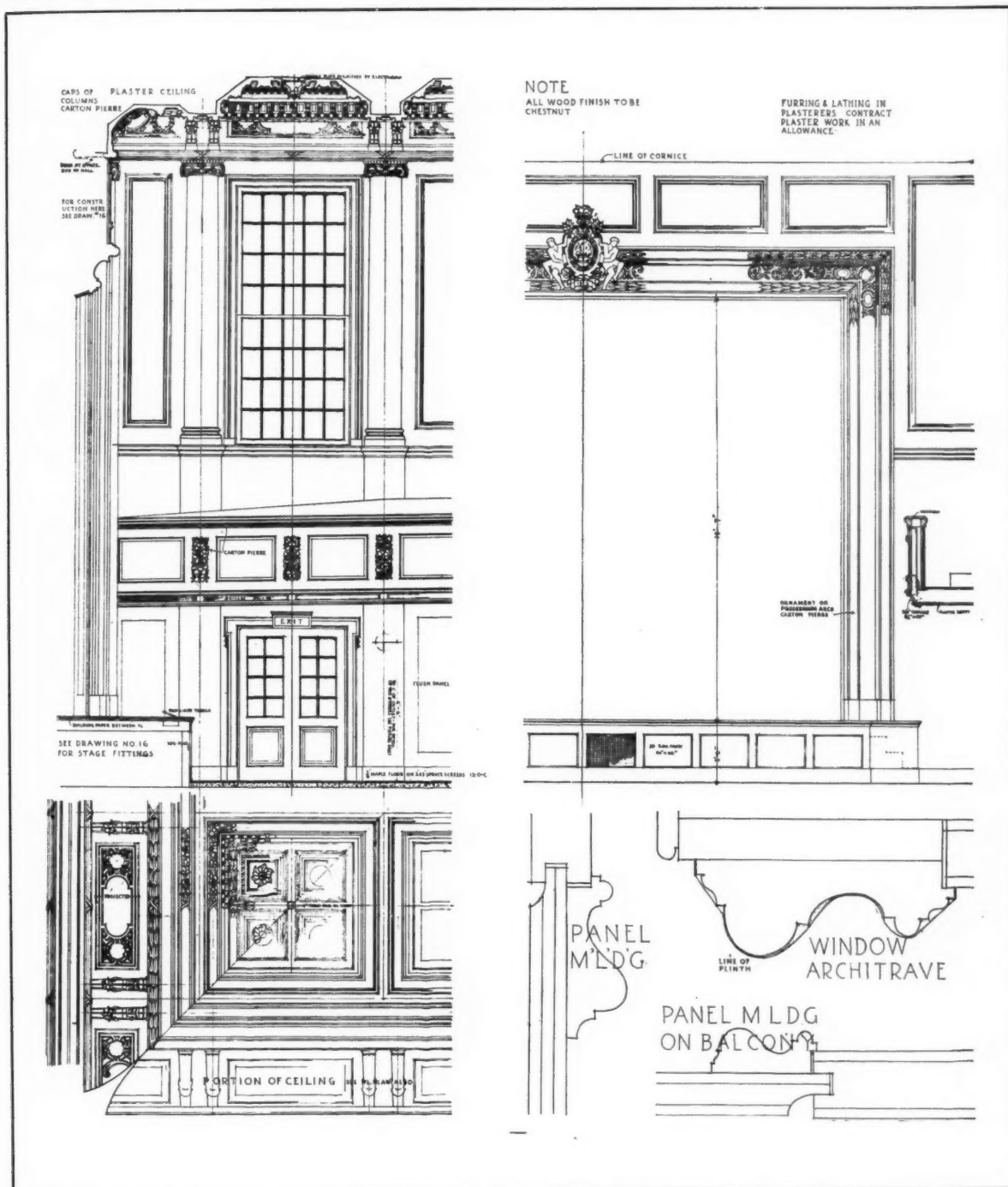




TOWN HALL, ARLINGTON, MASS.

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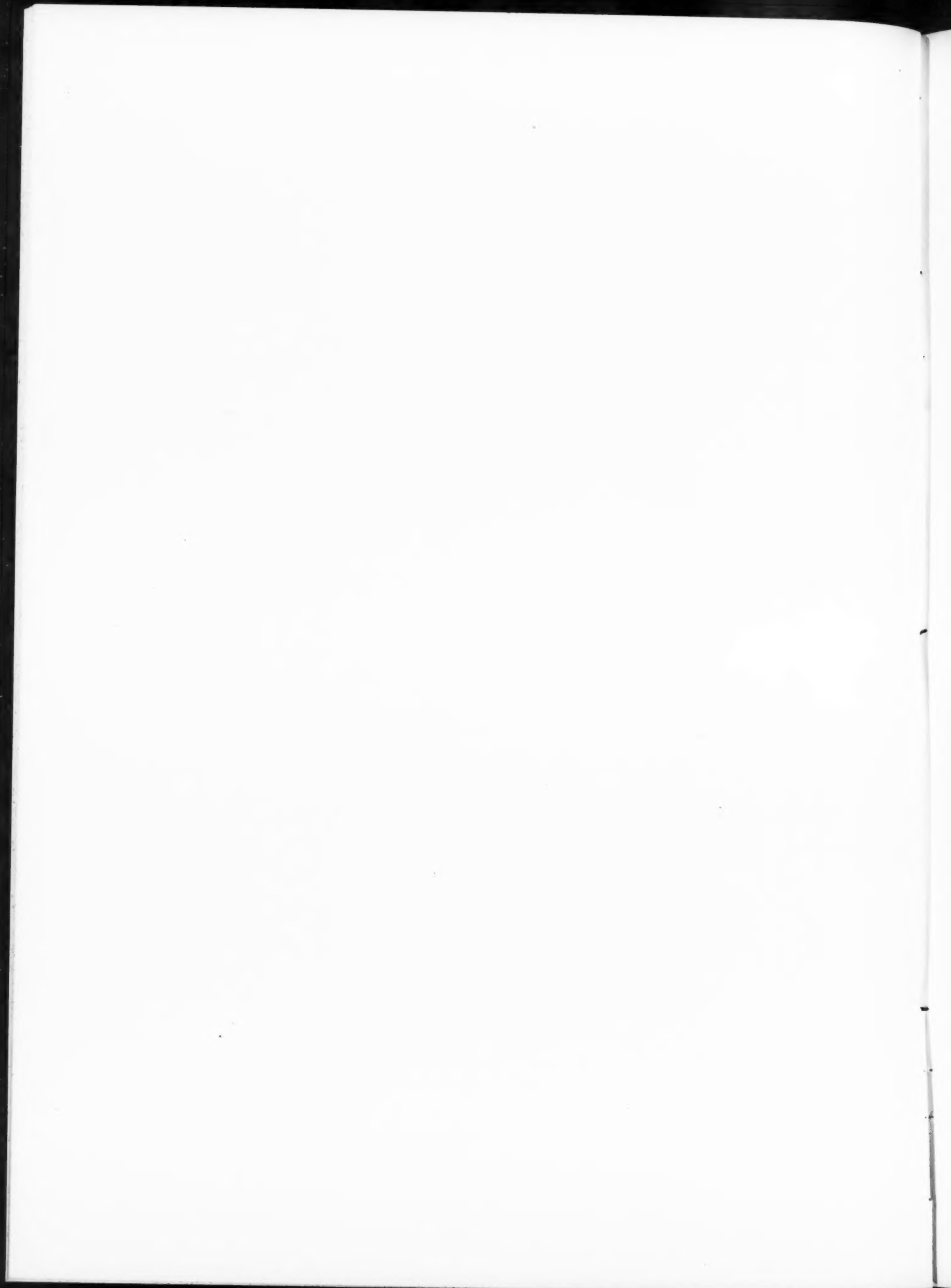


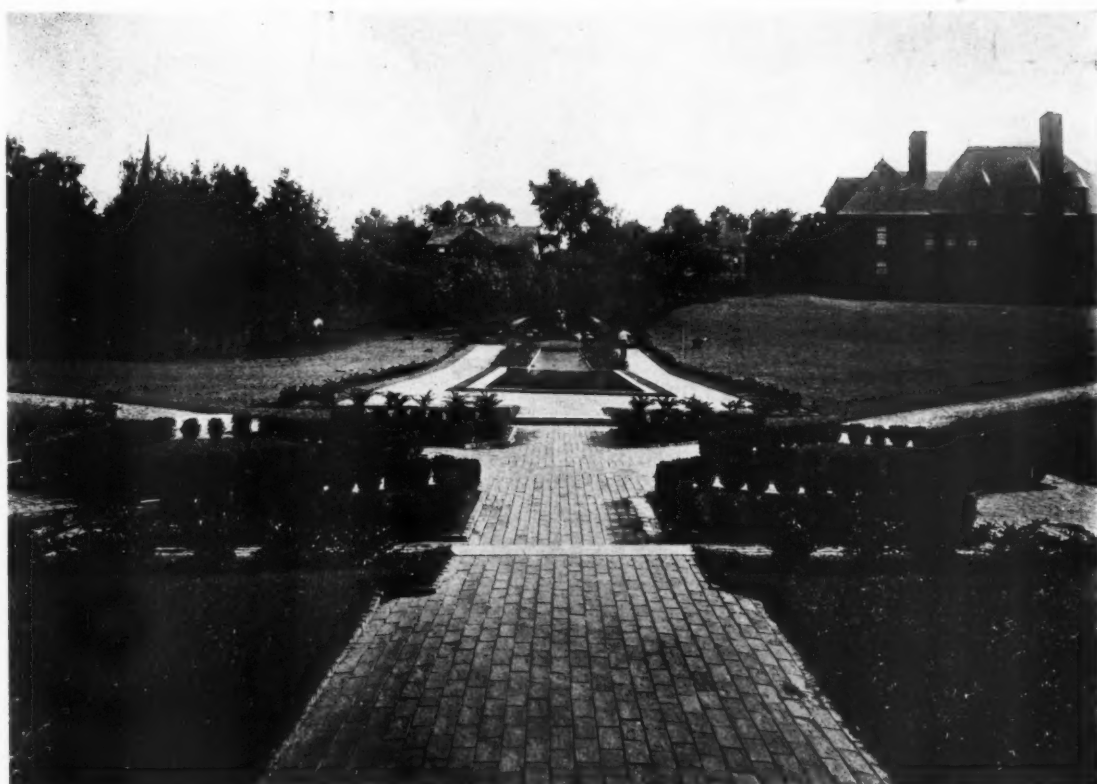


HALF INCH SCALE DETAILS

TOWN HALL, ARLINGTON, MASS

MR. R. CLIPSTON STURGIS, ARCHITECT

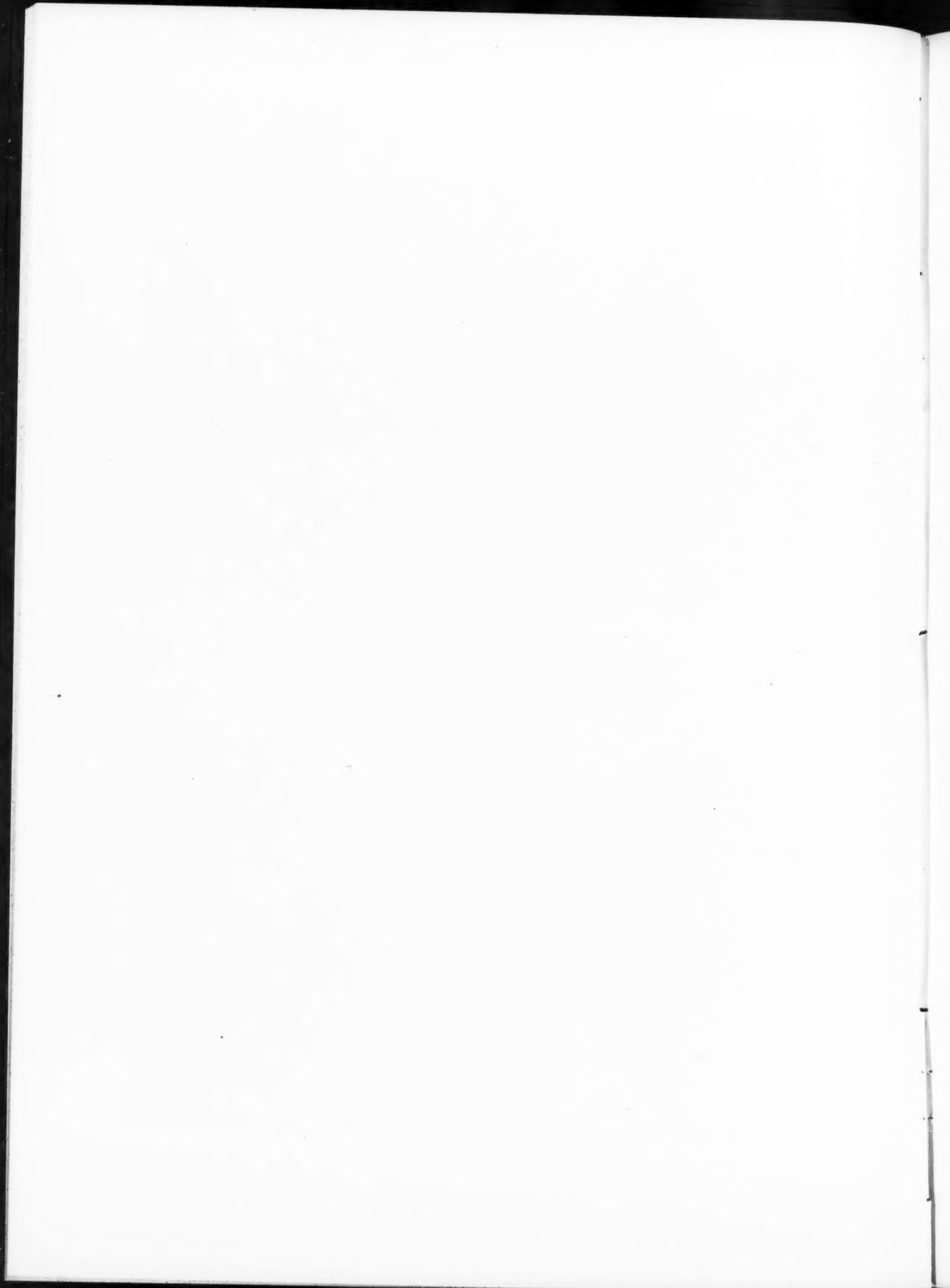


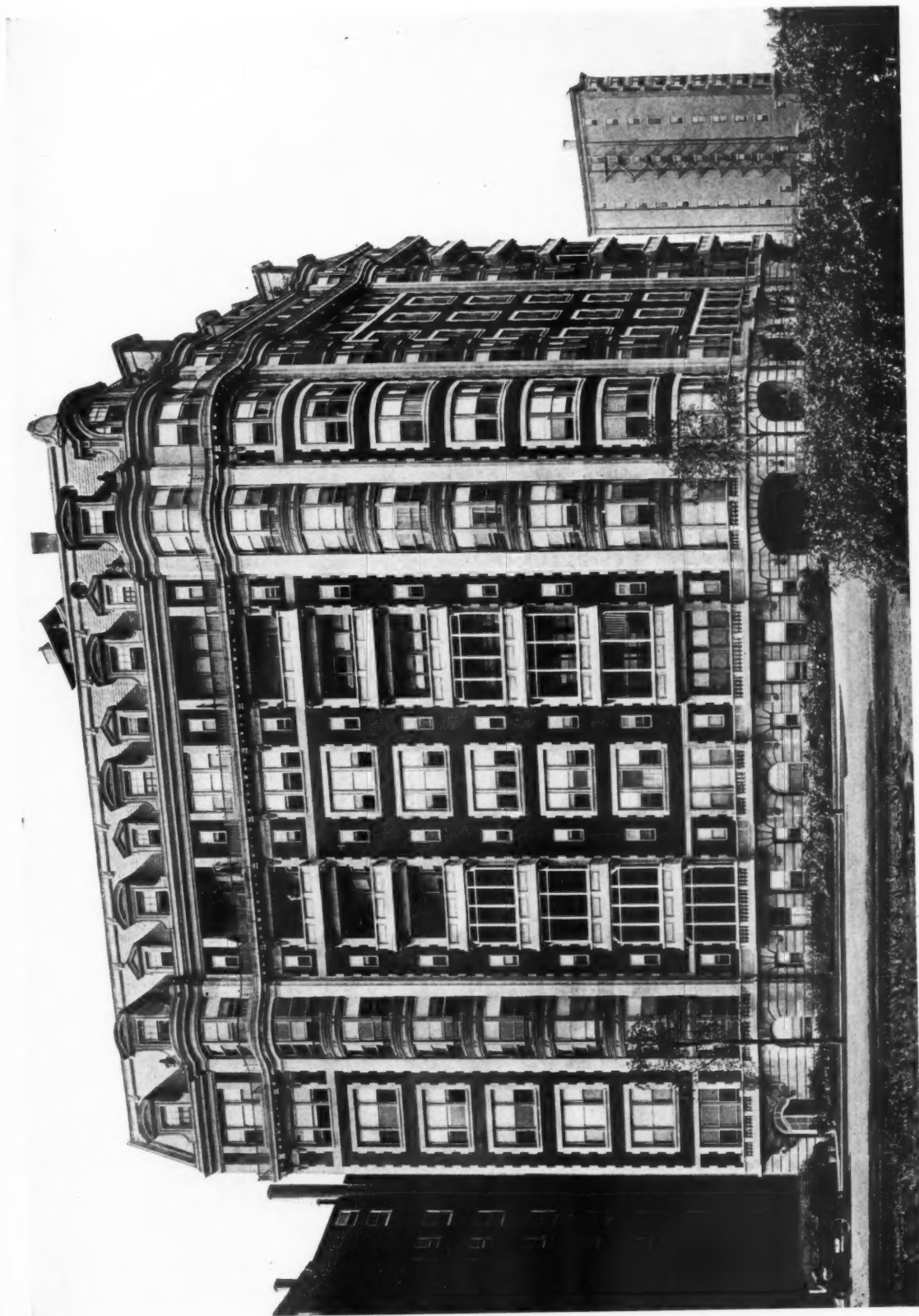


MEMORIAL FOUNTAIN AND GROUNDS

TOWN HALL, ARLINGTON, MASS.

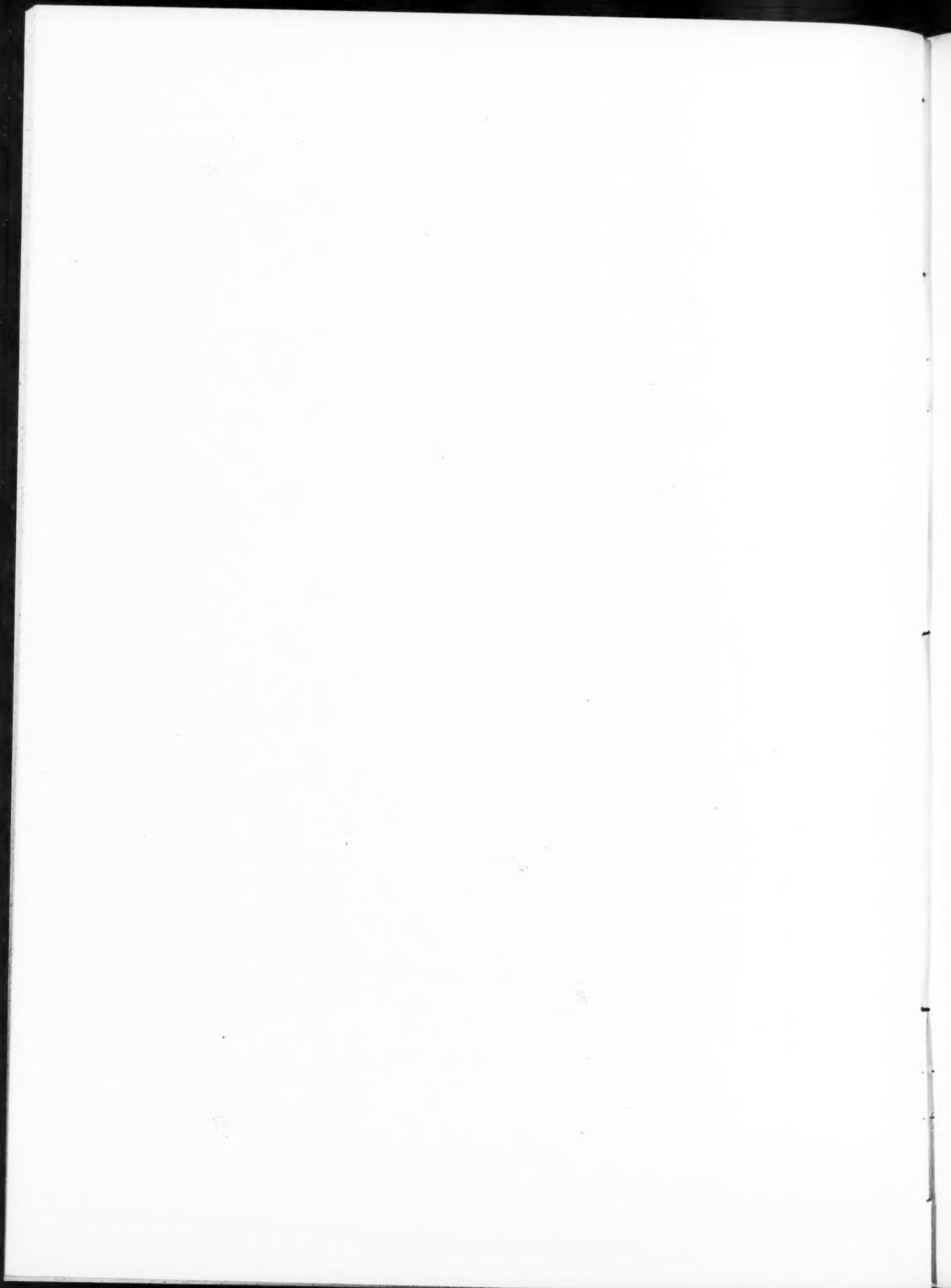
MR. R. CLIPSTON STURGIS, ARCHITECT





"THE LAKE SHORE" APARTMENTS, CHICAGO, ILL.

MESSERS. MARSHALL & FOX, ARCHITECTS

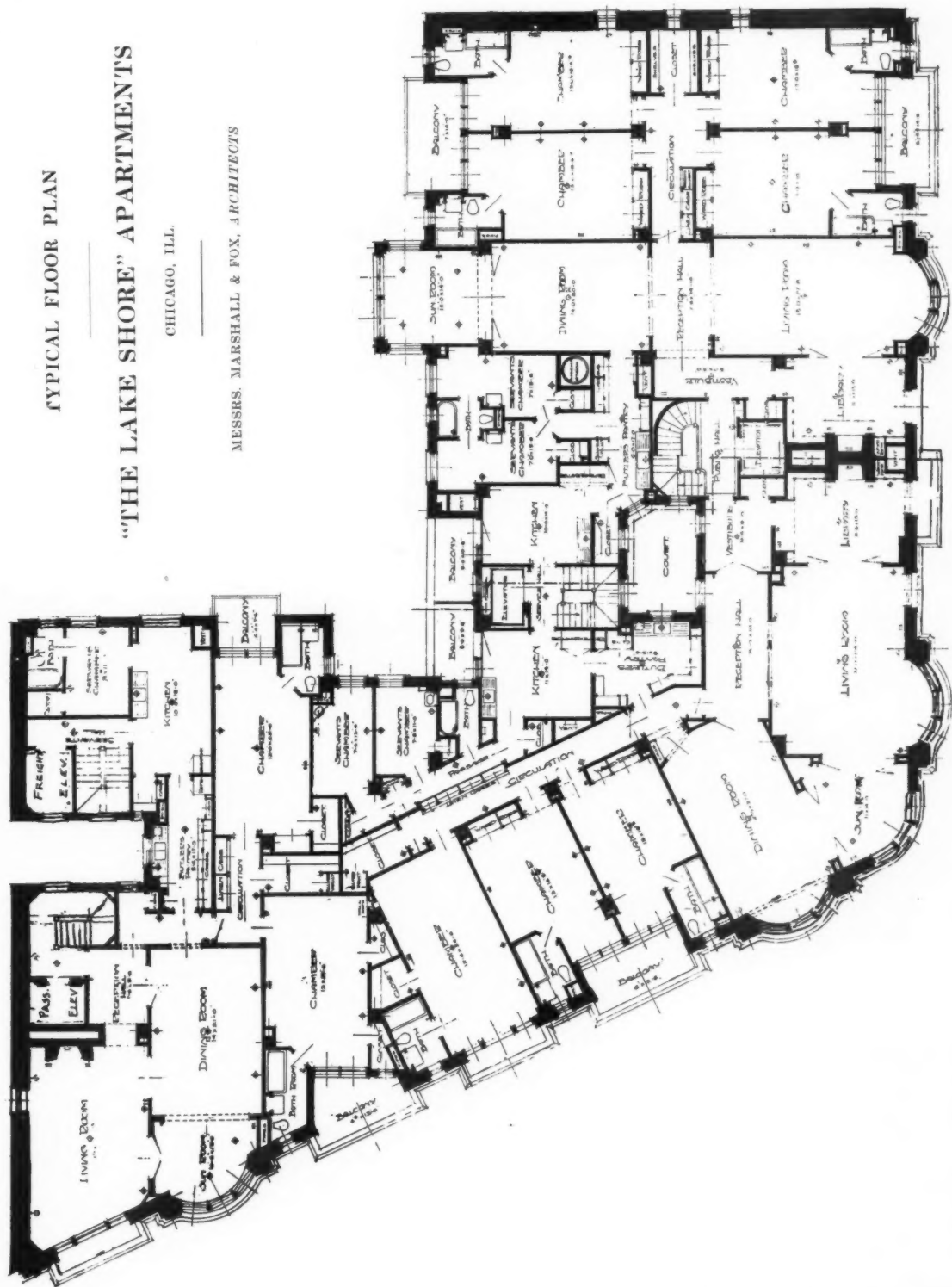


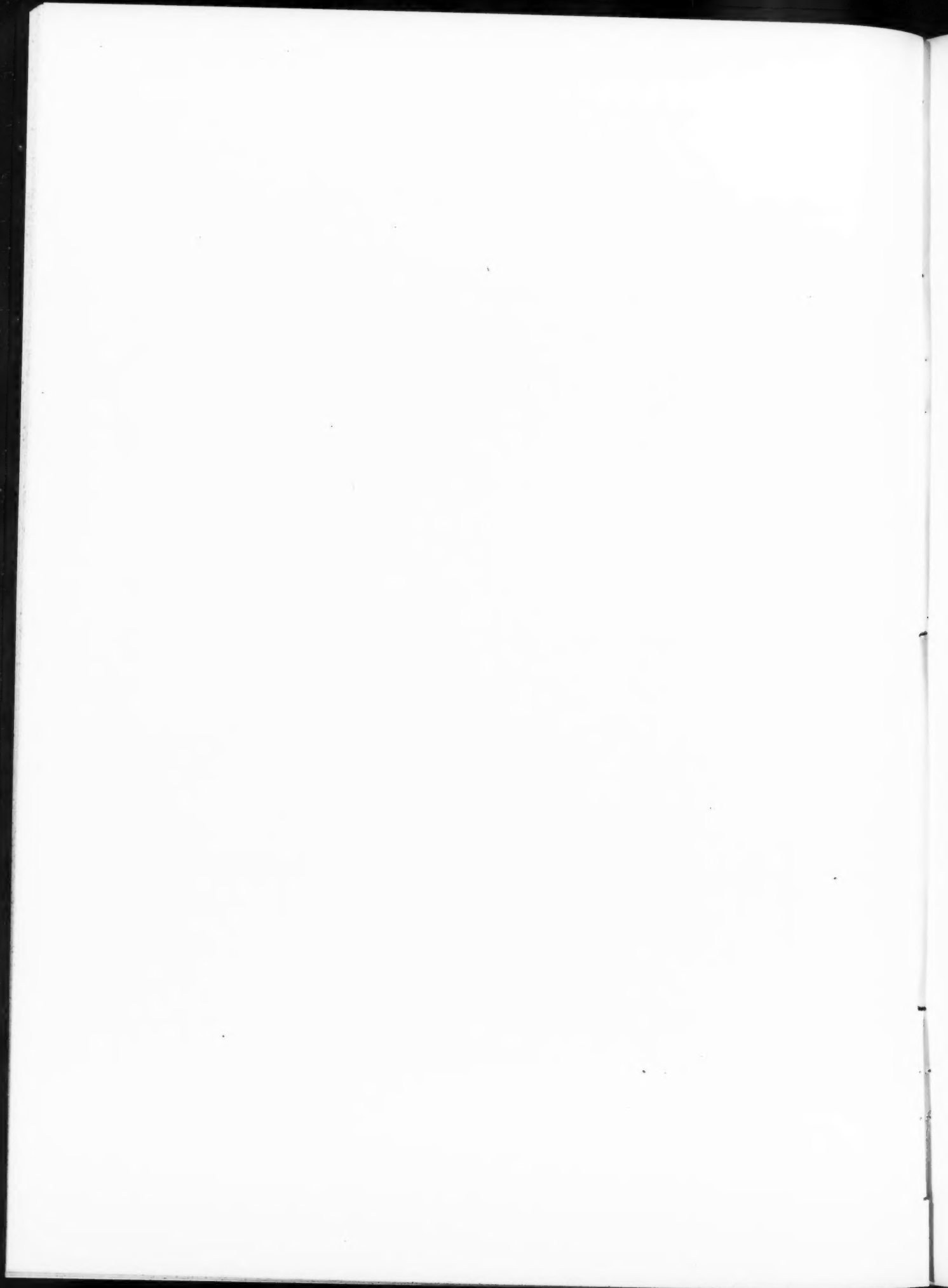
TYPICAL FLOOR PLAN

"THE LAKE SHORE" APARTMENTS

CHICAGO, ILL.

MESSRS. MARSHALL & FOX, ARCHITECTS

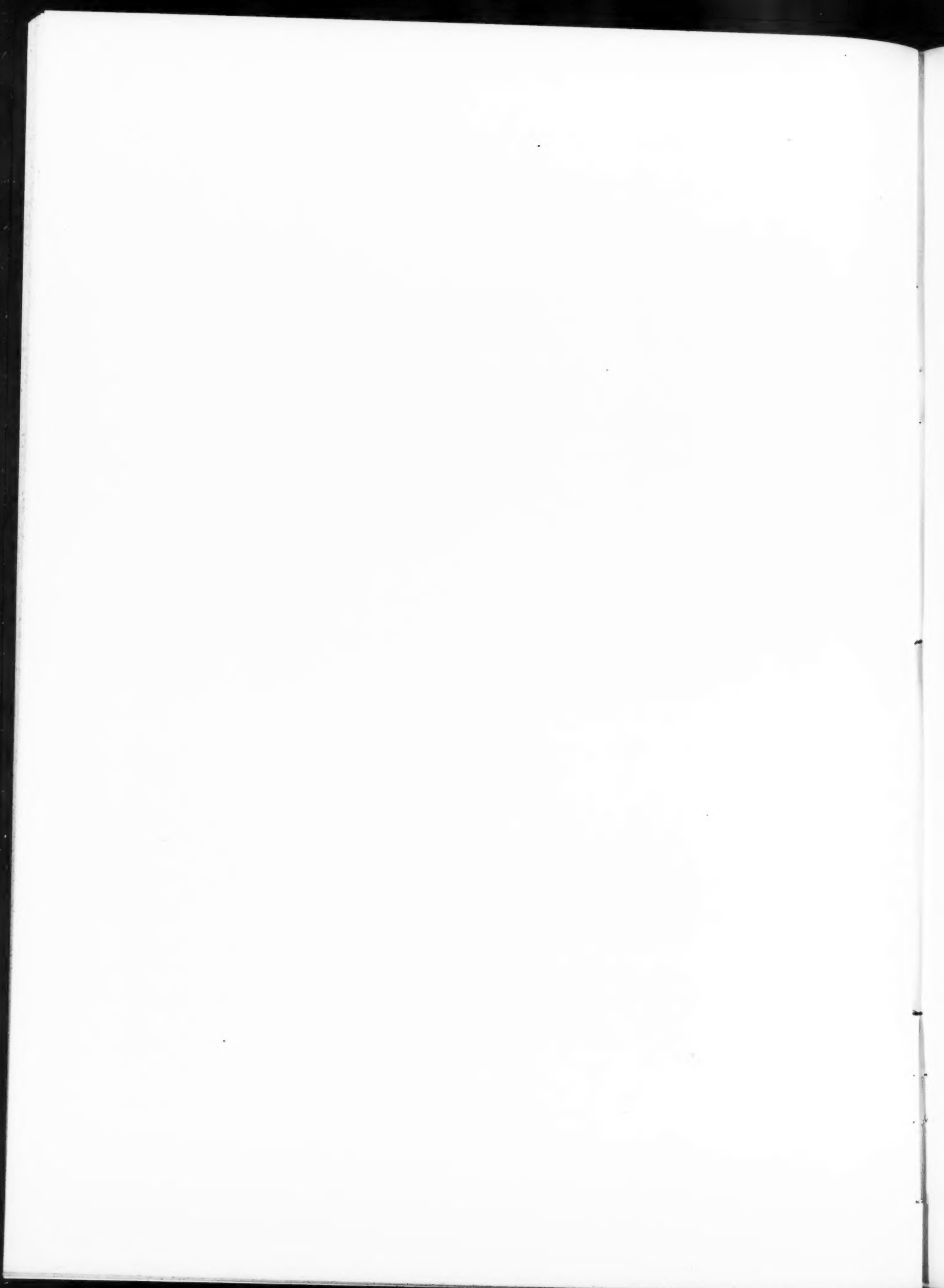


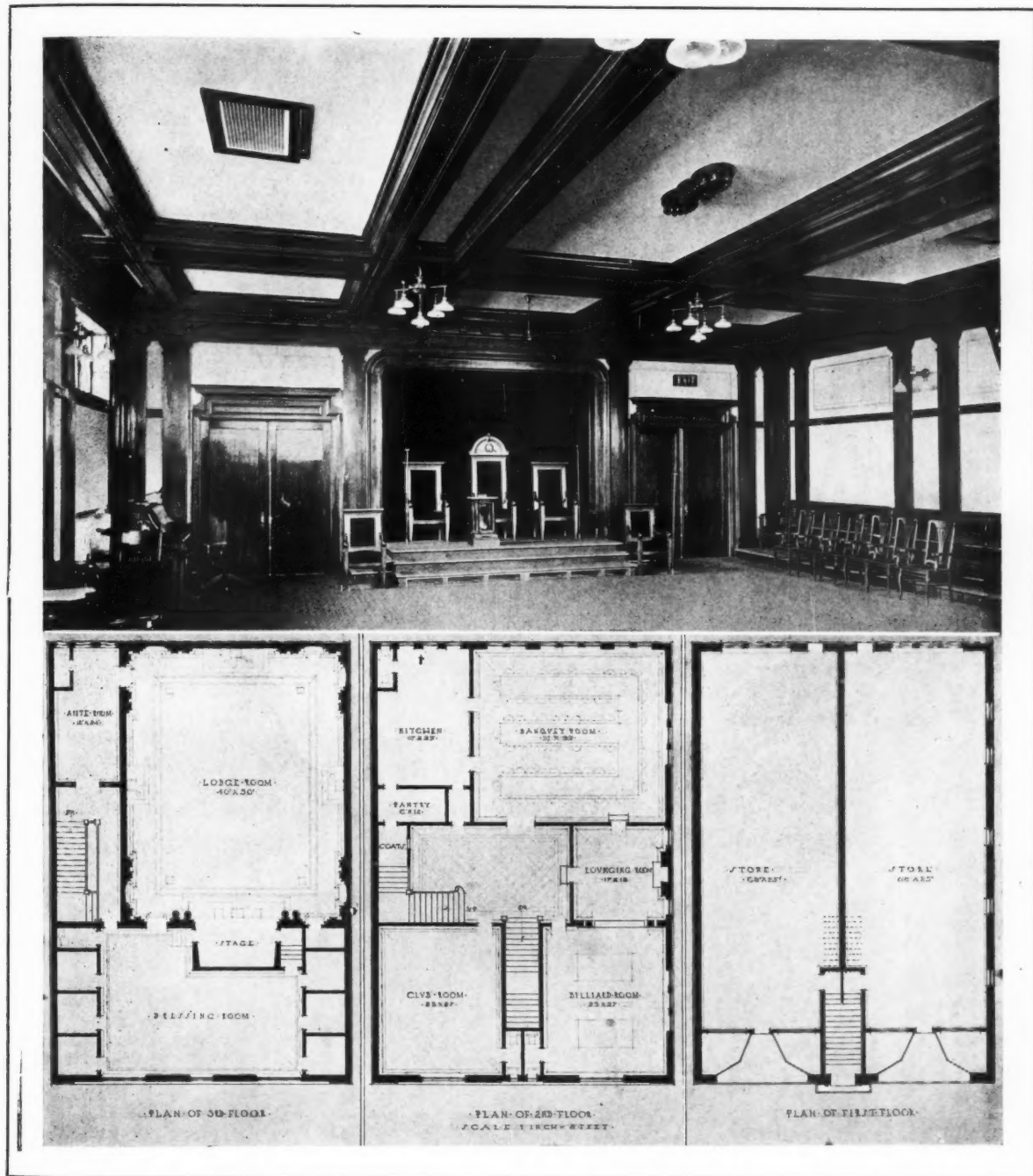




ODDFELLOWS' BUILDING, NORTHAMPTON, MASS.

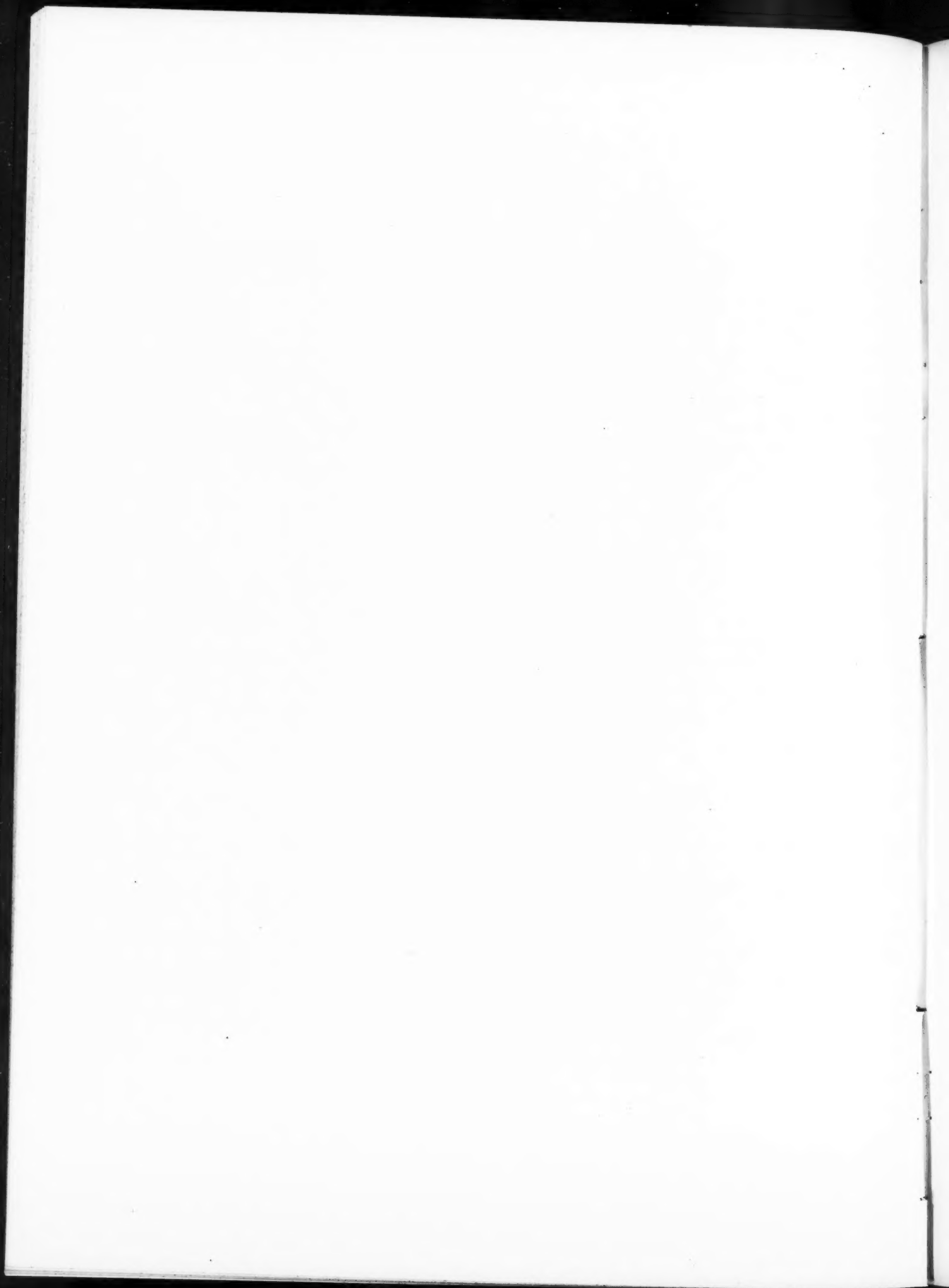
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ODDFELLOWS' BUILDING, NORTHAMPTON, MASS.

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A MORE HOPEFUL OUTLOOK WARRANTED BY REPORTS OF BUSINESS CONDITIONS

If we interpret the signs of the times correctly, architects' offices are likely to enjoy measurably increased activity in the near future. At no time, indeed, can a country whose institutions are fundamentally sound entirely suspend building operations, but periods of general business depression, such as the one from which we are apparently now slowly emerging, inevitably lessen the work of both architect and builder. Alternating intervals of rapid economic expansion and contraction are perhaps inevitable in a system of government that invites an almost complete political revolution every four years with the accompanying hesitation to undertake new enterprises until the new Federal administration has shown its hand. For the time being these successive periods of doubt and confidence must be accepted as the price of a republican form of national control.

Reports recently received from commercial and industrial centers seem, however, prophetic of a prolonged season of increased activity in business and consequently in architecture. According to a mercantile review, permits issued in June for buildings in

the leading cities of the country show a gain of five and a half per cent. over the same month of 1913, and the figures, as a whole, indicate considerable prospective activity in the building industry throughout the country, and while there are a number of points where sharp contraction is reported, the effect of this is counterbalanced by the marked improvement in many other localities. Politically, a better understanding already exists between the government and "business, big and little," resulting in a restoration of mutual confidence, except that much uncertainty still prevails in the business of transportation companies.

But the message of greatest hope is in the crop reports. Remote as the interests of agriculture may seem from architecture, it is true that the yield of the soil is the basis of all material prosperity, and therefore, if only for selfish reasons, the architect will unite in the general rejoicing over the prospects for a record-breaking grain crop valued by the Government at nearly three and one-half billions of dollars. Except in the Southwest the crop yields of 1913 were also very abundant and there followed extensive liquidation which has continued ever since. With the even greater "natural income" this year it is expected that the farmer, no longer mortgage-ridden, will spend freely and so stimulate American commerce and industry. It may well be said that the harvest of the farmer is the seed of business prosperity.

THE CONCENTRATED PRIVATE CONTROL OF TIMBER LANDS

The decrease in our timber supply has long been a matter of concern to the national Government as well as to the building fraternity. So rapidly had great areas of timber land been cut over by private owners, most of whom felt no responsibility to reforest the tracts, that the Government began some years ago an active campaign of conservation in which several State colleges materially assisted by instituting courses in scientific forestry.

The Commissioner of Corporations at Washington has recently issued a report showing that the Government has more powerful allies in the (at least temporary) conservation of forests than has generally

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been realized. It appears that 1,694 timber owners hold in fee 105,600,000 acres, more than one-twentieth of the land area of the entire United States, and that this property contains one-third of all privately-owned timber in the country. "Lavish land grants" and "loose, ill-enforced land laws" are said by Commissioner Davies to be the cause of this concentration in a few hands of a territory more than two and one-half times the area of the New England States. It is common knowledge that the railroads were encouraged to extend their lines into the heart of the wilderness by the awards of enormous land grants, which, it was assumed, would be quickly sold to pioneer homesteaders. But the men who had sufficient imagination to build railroads through an almost uninhabited country were foresighted enough to realize the vast potential value of their holdings and as a result only about fifteen per cent. of the land grants to railroads are now distributed in small tenures. The balance is owned by the grantees or their successors or by large timber holders.

Whatever the virtues or otherwise of great corporations, it is evident that to some of them is due the conservation of many billions of feet of timber which small owners must have disposed of long since. That this vast quantity of potential building material has been conserved for the certainty of huge speculative profits does not detract from the

importance of its being saved for the present and perhaps the next generation of builders. Indeed, had not a few men discounted the future it is probable that the available supply of lumber today would be much smaller and its cost to the consumer proportionately greater.

But if it be admitted that the immediate prospects for our timber supply are not as desperate as they might have been under a different system of land distribution, it is true that we are not taking sufficient measures to assure an adequate supply for future generations. Apparently the Federal and State governments have no formidable rivals in the planting of new forests and it is to them that a greatly increased population must look for what we regard as a basic necessity. We are rapidly and wisely learning to use other materials for many purposes formerly requiring lumber but the demand for it seems to increase as the supply diminishes, so that unless private enterprise will perpetuate the timber supply we shall in the not distant future be obliged to get it from a paternal Government. Perhaps, if the prospective profits of their heirs are not sufficient inducement to private owners of timber lands, it might be desirable and possible to enact legislation to compel the prompt and proper replanting of denuded forest tracts.



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ORIENTAL RUGS

(Continued from page 48)

employing them as something that has been handed down and which, in their ignorance, they are unable to explain.

Archaeologists have been able to trace analogies to early and well understood motives in the many symbols that are used.

The Sacred Tree, a motive whose origin has been with certainty traced to Assyria, is one of the commonest forms. This in

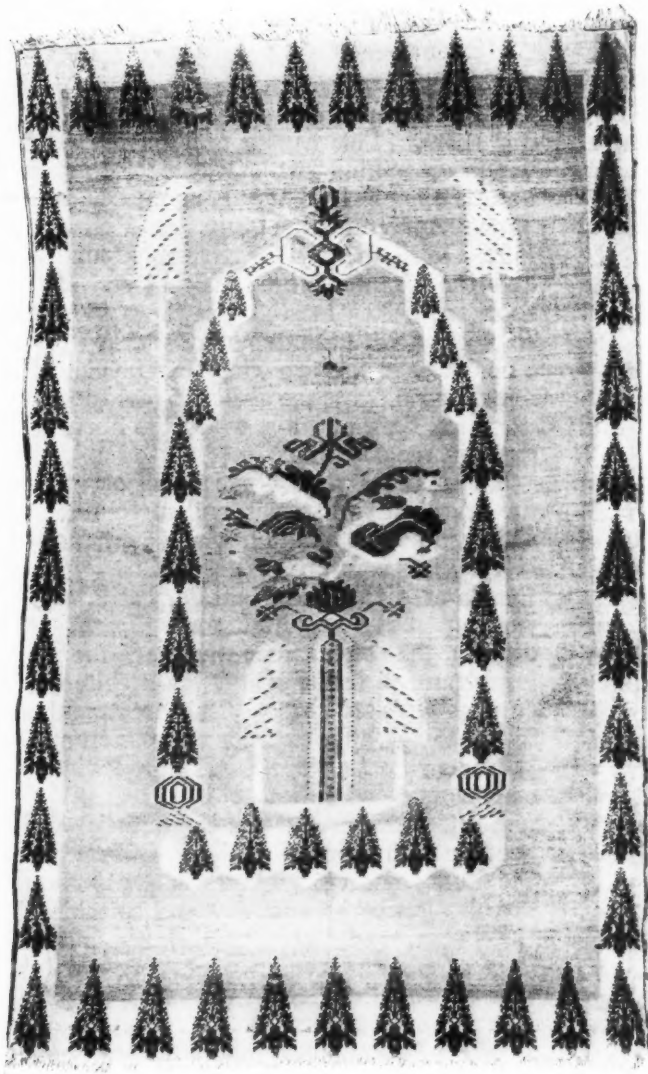
its conventional shape often loses its significance and only the trained eye can detect its presence in the woven rug.

Prayer rugs will often be found to have buried in their design the words that go to make in part or whole quotations from the Koran, or other books. We have knowledge of a rug, for many years in the possession of a man who was ignorant of the fact—until an expert called his attention to it,—that an inscription was hidden in the design. Naturally the rug took on an added value and was an object of greater interest.

Fruit, landscapes, forms of utensils, and many another suggestion, all find place in the symbolic designs of Eastern rugs.

The rug collector, like others who set about the accumulation of things considered rare and artistic, acquires, in his search for additions to his collection, a wide and valuable store of knowledge. In no branch of the collector's efforts will it lead him to more valuable or educational results than in the study of these mystical products of the hand looms of the far East. The man of artistic temperament will set greater store on a rug because of its color, and often prize to a higher degree one that appeals to him for this reason over one that is perhaps finer in its quality and weave. No other people have been able to compete with these orientals in the colorings imparted to the silk and wool of which these rugs are woven. Like the old masters in paintings, these men of the far East produced the colors used for dyes, guarded the secret of their making and by an intuitive artistic sense that is above criticism, grouped them in a manner that has produced results often never attempted but successfully copied.

It is interesting to note in this connection that in some particular colors the modern oriental worker is not able to duplicate.



XVII CENTURY BECTASH MOHAMMEDAN PRAYER RUG

THIS IS SOMETIMES CALLED THE FREE MASON PRAYER RUG OF THE ORIENT. IT HAS QUITE A DIFFERENT ARRANGEMENT OF ORNAMENT THAN IS USUAL IN WEAVINGS OF THE GHIORDES TYPE, OF WHICH IT IS A MEMBER.

THE AMERICAN ARCHITECT

The making of old Persian blue is an example. The production of this color is now a lost art, and rugs that show it are therefore highly prized and are eagerly sought by collectors.

Architects know that oriental rugs lend themselves to forms of decorative treatment of every period. They know also

that they must be selected with care as to their dominant color characteristics, lest they set up some discordant note, one that in spite of the great value of the rug, makes it undesirable for the purpose used.

We are indebted to the Tiffany Studios for the illustrations of the examples of rugs illustrating this article.

ARLINGTON TOWN HALL

MR. R. CLIPSTON STURGIS, *Architect*

TO-DAY, as in earlier times, the Town Meeting is the dominating note of New England Town Government.

In planning a building of this character the architect can only be successful when he bears in mind how close a part the New England Town Hall bears to those temperamental characteristics that represent these people, who, while abreast with the culture and civic progress of the times, cherish and maintain those methods of town government, tried by their forefathers and found good.

By reference to the plans of the Arlington Town Hall, it will be seen that the Hall occupies the important place on the ground floor and is the first thing to be seen when one enters by the main door from Massachusetts Avenue. One other room, that for hearings, is of general interest to the Town. This is a much smaller room and for more occasional and particular use, is placed on the second floor, but, as it serves an important purpose, it is given a prominent position on the front and in the center. All the other rooms are business offices for the conduct of the town's affairs, and as such are plain, serviceable work rooms, and nothing more. The Selectmen and various boards hold their meetings in these offices, but these are business meetings and it was considered that these rooms should reflect not the dignity or importance of the Town, but its sense of simplicity and economy in the conduct of its affairs.

The plan, therefore, is a central unit containing the simple but dignified entrance and the great hall, seating, with its galleries, a

thousand people, and a fine but simple hearing room. This center unit is flanked by wings containing two stories of offices, and here are housed all the departments of the Town Government, except the Police and Fire Departments, the School Committee and the Public Library Trustees. These four are better located elsewhere in direct connection with the departments they serve. The offices in the two wings can be closed at night by iron gates so as not to lose the sense of space, light and air, which the open plan gives in the day time.

The general plan, a great hall occupying the height of two stories, and surrounded on three sides by a building which contains two stories, is, therefore, expressed in its main façade as a two-story building, and, as the hearing room required some height and dignity, the second floor was made the more important of the two and the architectural emphasis placed there. This treatment allowed of a proper exterior expression of the great hall on the sides, for its large windows come above the gallery.

Stone was selected for the exterior walls because it harmonized with the Library; and the Bedford Indiana limestone was chosen because it was inexpensive and suitable for the character of design. This latter is on the lines of early Georgian work, a colonial reflex of which is seen in the old New York City Hall.

The interior of the great hall was designed in the same general style as the exterior, but to be executed in wood, with a coffered plaster ceiling. These two, the exterior of the building and the interior of the Hall, gov-

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erned the design and the color scheme throughout. The Lobby, marking the transition from the stone exterior to the wood interior, and serving also as the distributing point for the offices, was kept to the stone scheme of the exterior with the addition of some color. The stone, which outside is rubbed, inside is honed, making it almost polished and darker, and thus brings out its rose tone. This tone is echoed in the marble chosen, Vert Corail Clair, which has also a light green in it. The grey Knoxville marble chosen for the floor harmonized with both and the color is accented with black.

These colors fix the color scheme of the corridors and stairs and, consequently, of the offices which are open to the corridors.

The color scheme of the Hall is a harmony of contrast. The walls are chestnut, from the floor to the ceiling; this is kept very near the natural color of the wood, and the ceiling is painted to tone with the chestnut. The chestnut has tones of light gold value all through it, and this was taken as a guide in fixing the color of the gold used to relieve the ornament both on the ceiling and on the woodwork.

The use of gilding lightens what might otherwise be a dark or sombre interior and lessen the abruptness of the contrast with the light color of the lobby.

The cartouche of the proscenium arch is composed of the vegetables, fruits, flowers which make Arlington's industries, and will repay examination. The curtain was specially designed to repeat the note of gold in the room.

The hearing room is in the same character as the Hall, but simpler. Both the Hall and the hearing room were reviewed and

corrected by Prof. Sabine before the plans were completed so as to insure satisfactory acoustics.

The wrought steel gates in the corridors were added to make an efficient barrier at night when the Hall was in use and the offices closed, and this was made an opportunity to make the line dividing the dignified public part from the business part of the building an ornamental feature.

Outside the building there are two fountains on the terrace in memory of Caroline and Caira Robbins who died in the fifties.

The marble vases on the balustrades are interesting in the use made of native material, the leaf and seed pod of the maple, as the ornament.

In the grounds between the Library and the Hall is the memorial to Mr. Robbins given by the Misses Robbins: the figure of an Indian kneeling to drink from a spring. Mr. Dallin's work is always refined and sensitive, and in the portrayal of the Indian, he stands entirely alone among all American sculptors. The Indian is closely associated with the early history here and was, therefore, very happily chosen. The figure is set in sylvan surroundings which a few kindly years may make adequate for the beautiful bronze. The spring from which he drinks overflows and feeds a lower basin, a ripple, and a large still pool below.

The great flag standard on the corner has four figures, all allegorical of Arlington—the squaw sachem, a puritan divine, a puritan mother and a minute man. These figures form part of a bronze base emblematic of the agricultural industries of Arlington, and the bronze sets on a marble base with the eagles of the United States and the virtues that should belong to citizenship.



THE AMERICAN ARCHITECT

TWICE TOLD TALES

THE TRIALS OF THE ARCHITECT HUMOROUSLY SET FORTH

SOME years ago there appeared in this Journal a very sad story of a young American architect whose career was blighted at the commencement by having a lady with a temperament for his first client. This lady wanted a house—something Queen Annish, something like a house she saw in Brookline, and something like another in Columbus. There were to be a pergola and a garage, and dear old-fashioned small windows, but they must have large plate-glass panes, because you could never expect to keep maids if they had the corners of many small panes to clean. But these were all trifles compared with the issues involved when the plans came up for discussion. The lady knew what she wanted, and had drawn up some plans herself. They were not nicely scaled, a room twelve by twenty and another six by four being put side by side, occupying the same space; besides, the stairs and the chimneys were very strange. The architect explained that if he started the stairs on the ground floor, as shown on the client's plan, and let them arrive where the client wished them to arrive on the first floor, they would have to get under the bathroom somehow, and the only way to do that would be to have the bathroom suspended in some way from the roof by means of chains. Naturally this gave rise to some trouble, but the client clinched the matter by saying: "If I want the stairs in a certain place, I want them there. Please understand that." The next bother was with the chimneys. The client's plans showed the chimney flue in the dining-room on the left side of the house, and the chimney flue in the room above on the right side of the house, so that the flue would have to rise one story, then go across the floor, and so up. The architect pointed out this difficulty. "Well," said the client, "what of that? Suppose it does. You are an architect. You ought to be able to manage it somehow." The architect took it all quietly, but said to himself: "When the builder finds the

kitchen chimney doesn't meet the upper section of itself by three feet, he's going to be very, very angry." As a fact, the builder was extremely upset.—*The Architects' & Builders' Journal*, London.

LITTLE-KNOWN FACTS ABOUT WOOD BRIEFLY TOLD

MANY may have noticed that the wood of the same species frequently behaves quite differently, even under similar conditions. This can be attributed to the character of the wood itself as a result of the particular soil and climatic conditions under which the trees grew. The wood of a mahogany tree grown on high and well-drained situations is usually much harder and more durable than that which is produced in low, moist soil. This difference in the manner of behavior can be readily understood in the case of the white oak. The wood of slowly-grown oak is often exceedingly brash, because it contains a very large proportion of early, porous wood. That of a fast-growing oak has a small proportion of early porous wood, and is much denser and heavier.

When two pieces of wood cut from the same tree show a marked difference in their behavior under exactly similar external conditions, another influence must be at work, which has often puzzled the layman. The position of a stick of wood has a great deal to do with its durability and general behavior. For example, a fence post will be found to decay much faster if the top end is placed in the ground than if the butt is placed down. The reason for this is that the moisture of the atmosphere will permeate the fibers of the wood much more rapidly in the way the tree grew than it will in the opposite direction. Microscopical examination of the wood shows that the fibers invite the ascent of moisture, while they repel its descent. A good many have observed in a wooden bucket that some of the staves appear to be entirely saturated with water, while others are apparently quite dry. This is due to the fact that the staves which are dry are in the position in which the tree grew, while the saturated ones are reversed.

ENGINEERING AND MECHANICAL DEPARTMENT

HEATING AND VENTILATION IN MUNICIPAL BUILDINGS

By CHARLES L. HUBBARD

THIS group includes such buildings as court houses, city halls, post office buildings, public libraries, etc.

Buildings of this type are similar in their requirements to office buildings, with the addition of auditoriums, committee rooms, reading rooms, and others of a similar nature, where a considerable number of people are gathered together for varying lengths of time. The smaller rooms are usually heated by direct radiation, the same as in office buildings, although in this case it is more common to furnish an independent air supply also. This is due to the limited number of stories, which makes it possible to reach the various rooms either with separate flues from the basement or from corridor airways as illustrated in a previous article.

Court Rooms and Auditoriums are best ventilated by means of a supply fan introducing the air through wall registers seven or eight feet from the floor.

Exhaust ventilation may be partly through ceiling vents and partly through grilles or registers near the floor. It is not usually necessary to provide exhaust fans under ordinary conditions, but if the available flue area is restricted, they should be furnished with sufficient capacity to remove at least six tenths of the air supplied.

The location of both the supply and vent fans will depend somewhat upon the arrangement of the rooms. In general, it is better to place all ventilating equipment in the basement, being more accessible, but when the room is at or near the top of the building, the fans may be located in the attic, or on the roof, in order to shorten the length of flues. If rooms, ventilated by independent fans, were to be warmed only while occupied, it would be much simpler to do the entire work by means of the main heaters.

As a matter of fact, it is desirable to maintain a comfortable temperature when ventilation is not required. Therefore, under these conditions, it is best to keep the two systems independent, heating by direct radiation and introducing the air at a temperature of seventy-two to seventy-four degrees, which is slightly above that of the rooms, in order to prevent drafts.

Sometimes it is possible to use supplementary stacks at the bases of the flues, which may be utilized as rotation heaters when the fan is not running. This arrangement, however, is often difficult to carry out satisfactorily in practice owing to the building construction.

If there are high windows it is well to admit a portion of the air through narrow slots in the sills, placing re-heaters below, as shown in Fig. 1.

These stacks should be in addition to the direct radiation, as they have but little heating value, unless doors can be opened into the connecting duct to admit warm air from a basement room, when the fan is not running. Under this condition they may be counted the same as direct radiation in the room.

Committee Rooms and Offices: These are best

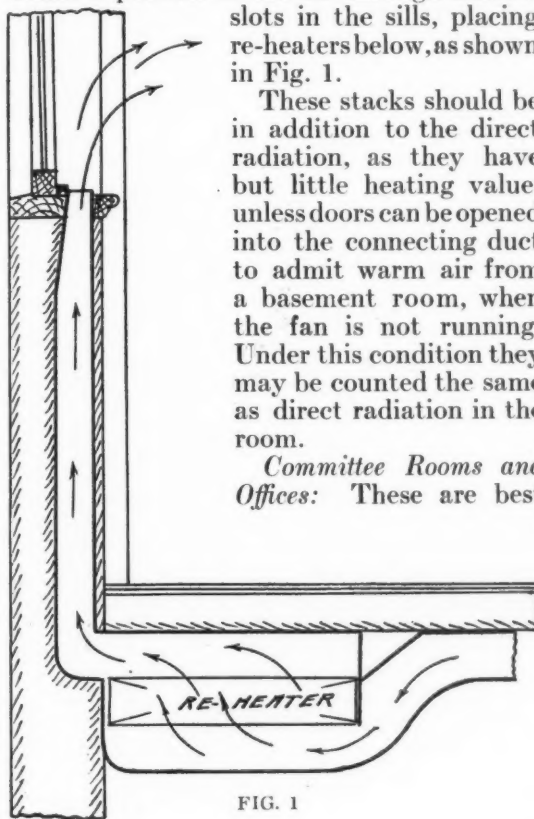


FIG. 1

heated by direct radiation and may be ventilated by means of a special fan or connected with the main fan supplying the court room. While the duplication of equipment is to be avoided on the score of economy, elaborate arrangements of switch dampers, and the changing of fan speeds and heating surfaces from time to time to meet varying requirements, complicates the operation of the plant and often results in impaired efficiency. Hence, economy of first cost and convenience of operation should both be considered when deciding upon the most satisfactory arrangement.

Leakage may commonly be depended upon to remove the air from rooms of this kind, although in committee rooms, and others where sessions are likely to be held with closed doors and transoms, it is best to provide vent flues connecting with a shaft leading outboard.

Exhaust fans are not usually required in cases of this kind as the slight pressure within the room is sufficient to force the air out.

Post Office Buildings: The treatment here will depend somewhat upon the size of building. Ordinarily the smaller offices and corridors are heated by direct radiators, while the main work room is furnished with ventilation, either by means of a fan or indirect gravity radiation.

When the latter arrangement is employed, the stacks are usually made of sufficient size to heat the air supply to about seventy-five degrees in the coldest weather and direct radiation provided for independent heating. If preferred, ventilation and heating may be done by the same stacks, provided air rotation can be arranged for when ventilation is not required. In all larger buildings, where the main work room is in use day and night, this provision is not necessary as ventilation will be required at all times.

Libraries: Small buildings of this kind are usually heated by a combination of

direct and indirect radiation, the latter furnishing ventilation for the more important rooms, such as reading and reference rooms, private offices, etc. In larger buildings a fan system should replace the indirect gravity stacks and the heating should be done independently. If the building contains an auditorium or lecture room it should be treated in a manner similar to that described for court rooms.

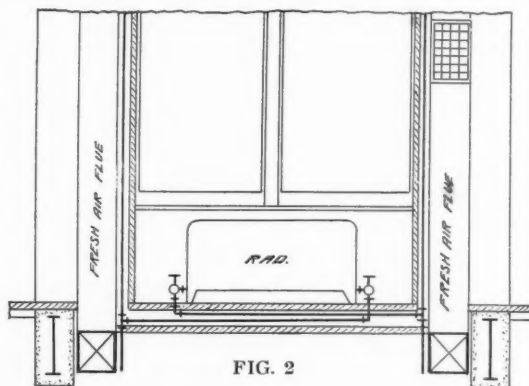


FIG. 2

Air Volume: This should be based upon the probable number of occupants, so far as possible, for the larger rooms, with four or five changes per hour in the smaller ones.

Flue and Radiator Arrangements: A typical flue and radiator layout for this class of work is shown in Fig. 2. The radiator is placed beneath the window in a recess formed by pilasters at either side, as indicated.

The supply flues connect with ducts at the basement ceiling and are carried up within the pilasters, together with the steam and return pipes, as illustrated in the cut. The run-outs to the radiators may be either in spaces beneath the tiling or above the floor, with provisions for expansion as indicated.

Details already shown in connection with other buildings may also be adapted to this class of work.

CURRENT NEWS AND COMMENT

A ZONE FOR TALL BUILDINGS

CHICAGO CREATES A ZONE IN WHICH BUILDINGS EXCEEDING THE PRESCRIBED HEIGHT MAY BE ERECTED

The council committee on buildings of the city of Chicago, have agreed to the preparation of an ordinance, creating a zone on Michigan Avenue, between Randolph Street and Park Row, in which buildings may be erected up to a limit of 260 feet in height. The present ordinance prescribes a height limit of 200 feet.

TO REGULATE REPAIRS TO EXISTING STRUCTURES

The lessons taught by the recent disastrous fire at Salem, Mass., are beginning to be heeded. Cities and towns in New England are taking steps to decrease the number of inflammable roofs, as it was from roofs of this character that the greatest spread of the Salem fire was due.

New Bedford, Mass., has through its superintendent of buildings begun to enforce a rule that all repairs and renewals of roofs in that city must hereafter be made with fire-proof materials, subject to the approval of the superintendent of buildings.

ART AND SENTIMENT

A monument, erected in San Francisco, at the close of the Spanish-American War must, of necessity, be taken down to make way for certain street improvements.

The citizens who were most active in the placing of this memorial desire its re-erection in the new civic centre, while the local chapter of the American Institute of Architects, seeing an opportunity to be freed from what people of artistic discernment regard as a very poor work of art, ask that the monument be boxed and stored indefinitely.

Naturally the controversy that is being waged in the local papers, is one of patriotism versus art. The need for a Municipal Art Commission to regulate and control similar matters is apparent.

HOUSING REFORM IN GERMANY

Commenting on the fact that the National birth-rate in Germany has fallen from 42 to 20 per cent. per 1000 in the last 40 years, a former Minister of the Interior states as his belief that this diminution is entirely due to the effects of bad housing conditions as exemplified in the dwellings of the working classes.

A staff correspondent of the *Buffalo Express*, writing from Berlin, states in relation to the movement to better housing conditions as follows:

A powerful influence for the improvement of German housing is being exercised by the state social insurance system. The insurance organizations have become capitalizers of the movement for providing working-class dwellings. They possess enormous accumulated funds for which they must find investments; and a safe investment is found in loans for building. The state insurance bureau reasons that by enabling the workers to build and own their own houses, the level of public health will be improved; and the claims of the bureaus for sickness and invalidity will be diminished. Up to date \$95,000,000 has been lent by the insurance bureaus to individuals, municipalities, and private societies for the building of working-class houses. The money is lent at from 3 to 3½ per cent., and is secured on the building plot and the new house. As a rule the loan must not exceed two-thirds the value of the land and building. The borrower pays off annually 1½ per cent. until the amount of debt outstanding is reduced to half the value of the security.

This cheap credit is confined to real working-class housing. Rigid rules prevent it being used by speculators. The house must be satisfactorily designed as working-class dwellings, and must contain not more than two apartments. This is an attack on the big apartment-house system. The beneficiaries must be genuine residents who are insured in the local state insurance bureau, and the houses must be intended for their personal residence. No person may own more than one house built on insurance credit. Where the house contains only one dwelling it may not be sublet except to near relations; where it contains two, the tenant of the second must have the same qualification as the houseowner. By a combination of this system with life-insurance the workman and his family are guaranteed permanent possession. The workman insures his life with the mortgagee (who is the state insurance bureau) on the terms that if he dies any time after gaining possession the house will remain free of mortgage for his family, and that if he lives for 25 or 30 years the mortgage will be paid off. The only thing that can threaten his possession is a sickness which would prevent him paying the premiums. Against this risk he again insures so as to draw during sickness a sufficient pension to pay the life premium.

THE AMERICAN ARCHITECT

WOOD AND ITS QUALITIES AND CHARACTERISTICS

The leading article in a recent issue of *The Building News* of London, discusses at some length the various woods used in all phases of building construction, and urges upon architects the necessity for acquiring a knowledge of at least the dominating characteristics of the woods they specify.

It was in appreciation of this fact that *THE AMERICAN ARCHITECT* began, more than a year ago, the publication of a series of monographs, prepared by an expert in the employ of the Forestry Division of the Department of Agriculture, on wood, foreign and domestic. These monographs are authoritative and accurate discussions, and are thought to be of particular value to architects.

GLASS IN BUILDINGS

ITS USE SHOULD BE DETERMINED BY PRACTICAL CONSIDERATION

The use of glass in buildings should be determined by practical considerations, and with it, more than any other material, design is determined by the possibilities and limitation of glass as a material, according to John Dunlop in the *National Builder*.

The design of the windows of a house is one of the most important features of its architecture, as on their planning depends not only the admission of light, and, therefore, the success of the house from the point of view of its occupants, but to a large degree its architectural merit.

Modern glass has improved from a practical point of view greatly since the days of the Gothic artist. Still the beauty of ancient glass is always admired, and the charm of the old quarry window, with its characteristic qualities, was due to the difficulties of getting large sheets of glass. Early in the beginning of the eighteenth century crown glass was made by spinning. This was made in larger and larger circles, until it reached fifty inches in diameter, from until it reached fifty inches in diameter, from which a fairly large sheet could be obtained.

This method of making glass was expensive, because much of the sheet had to be cut away, and there was a central bullion, which had always to be cut out.

IV

REVIEW OF THE SCHOOL OF ARCHITECTURE—UNIVERSITY OF PENNSYLVANIA

An interesting feature of the "Review" recently issued by the School of Architecture, University of Pennsylvania, is the summary of honors taken by the students in open competitions during the past four years. The summary is supplemented by about thirty pages of illustrations of prize designs in these competitions, including those for the fellowship of the American Academy in Rome, the Paris Prize of the Society of Beaux Arts Architects, the Interscholastic Competitions, the Bacon, the Warren and the Pupin prizes of the Society of Beaux Arts Architects, the John Stewardson Memorial Scholarship and the Rougevin prize in the Ecole des Beaux Arts, Paris. The latter prize, for the best solution of a problem in architectural decoration, was established in 1857, and in 1913-14 was for the first time awarded to an American, the University of Pennsylvania student who in 1911 won the Paris prize.

The regular school work in architectural design, historic ornament, and drawing from life appears to be of the same high character, though on a lesser scale than the drawings made for outside competitions. Illustrations from the courses on architectural engineering include reinforced concrete and roof truss design and miscellaneous construction details.

A photograph of Professor Warren Powers Laird, Sc. D., who has been in charge of the department for more than twenty years, is employed as a frontispiece of the "Review."

PERSONAL

Mr. Amos A. Lawrence and Mr. Robert H. Wambolt, architects, Boston, Mass., announce their association for the practice of their profession.

They have opened offices at 112 Water Street.

Mr. F. Joseph Untersee, architect, Boston, Mass., has removed his office to 585 Boylston Street, Copley Square.

INDUSTRIAL INFORMATION

CORRECTION

It appears that the statement appearing in our issue of June 17th to the effect that a proposed sanitarium to be erected at Sherman, Tex., will be a branch of the Battle Creek sanitarium, is erroneous. We are advised that the Battle Creek institution has no connection with any other, nor has it any branches.

COLD STORAGE DOORS

Bernard Gloekler Company, Pittsburgh, Pa., are makers of kitchen equipment, cold storage doors and their hardware.

The line manufactured is shown in a series of illustrated pamphlets to be had on request.

Particular attention is directed to the construction of cold storage doors. They state that for fifty-seven years they have been experimenting with and testing new and desirable features of door construction, and believe they have evolved a product that can be safely recommended for the purpose intended.

PIPE ORGANS

George Kilgen & Son, St. Louis, Mo., are makers of pipe organs. In a recent catalogue illustrations are shown of a number of important edifices where organs built by them have been installed. Specifications in considerable number are included. These, it is stated, are recommended by the makers as the results of many years of study, experience and extensive correspondence with organists and clergymen.

The architectural possibilities of well designed organ cases are emphasized in the illustrations to be found in this pamphlet, which will be mailed on request.

ELECTRIC WIRING DEVICES

Catalogue No. 22, issued by Pass & Seymour, Inc., with main office at Solvay, N. Y., and branches in New York, Chicago, and

San Francisco, illustrates the line of hand electrical wiring devices made by this company.

Having reached a high state of perfection in their various lines, progressive manufacturers are now seeking refinement in all the various occasions that form a part of their output. The care and skill that is given to minor details is well shown in this handy catalogue, which will be mailed on request.

SPRINKLERS

H. G. Vogel Company, whose executive offices are at 12 Walker St., New York, with branches in principal cities, manufacture the Esty Sprinkler. In a recently issued catalog are a great number of facsimile endorsements of the Esty Sprinkler from owners and occupants of important buildings in which they have been installed. These testimonials convey a large amount of information as to the cause of incipient fires, and their prompt extinguishment, on premises where these sprinklers have been properly installed.

This pamphlet will be forwarded on request.

AERO AUTOMATIC ALARM

Aero Fire Alarm Co., 6 Church Street, New York, are makers of an automatic fire alarm, described in recently issued leaflets, and for which they claim the advantages of ease of installation combined with economy and efficiency of operation.

The principle is a hollow wire of small diameter extending throughout the building, on the ceiling or around the mouldings and practically invisible.

This wire or tubing runs to a conveniently placed cabinet which contains a sensitive diaphragm and electric contacts.

Heating of the air by an incipient fire causes its expansion, it is claimed, throughout the entire length of the tubing, moving the diaphragm and making contact which automatically sets off the alarm.

Further details of this alarm are given in the pamphlet referred to, which, with a sample of the tubing used in installation, will be sent on request.

THE AMERICAN ARCHITECT

ARCHOVER DRINKING FOUNTAINS

A type of sanitary drinking fountain, designed to thoroughly comply with the laws regulating public drinking fountains, has been devised by Archover Fountain Co., 202 State Life Building, Indianapolis. It is illustrated and described in a pamphlet which may be had on application.

The principle of construction may be said to consist of a number of water discharging outlets, the streams from which arch over and converge at a central point between the outlets, producing a bubble or geyser-like body of water.

The makers claim that it is not possible for the lips to come in contact with any part of the metal frame, and that water that may have come in contact with the lips does not again come in contact with the discharge outlets.

SHOWER BATHING

The hygienic advantages of shower bathing, and the facilities for its indulgence, are described and illustrated in a pamphlet recently issued by Speakman Supply & Pipe Co., Wilmington, Del., who state that they make a hundred different types of showers, designed to meet every condition where a utility of this nature may be installed.

Instructions as to installation of showers are printed in the pamphlet, with recommendations, based on practical experience.

The pamphlet may be had by architects on request.

MIXING VALVES

A leaflet, issued by the Imperial Brass Manufacturing Company, Chicago, Ill., illustrates and describes the Ingham Mixing Valve and Shower Mixer.

The addition of mixing valves to the bathroom equipment provides an accessory, the usefulness of which is conceded. The shock produced by either too cold or too hot water

in the shower has resulted in a great many people abandoning this very hygienic form of bath. The introduction of the mixing valve has restored the shower bath to its place as a daily accessory of the toilet. The makers of the Ingham Valve state that with its use, scalding is impossible, and that the temperature of the water is under instantaneous and constant control. The makers further state that it is low in cost, has few parts, and is practically indestructible.

The pamphlet describing these valves in detail may be had on request.

MOSAICS IN MODERN DECORATION

An interesting pamphlet, issued by the Tiffany Studios, 347 Madison Avenue, New York City, describes and illustrates a mosaic curtain, constructed for the National Theatre of Mexico.

The use of mosaic in modern decoration has afforded an opportunity for the introduction of color schemes that are absolutely permanent and constructed of a material that is fire resisting in the highest degree. It is of interest to note that this curtain contains 2500 square feet of glass mosaic, and weighs twenty-seven tons. So accurately has it been balanced, that when operated by hydraulic pressure, the time required to raise and lower it, is stated to be but seven seconds.

WIRING SPECIALTIES

Catalog Number 16, issued by The Arrow Electric Company, Hartford, Conn., illustrates and described an extensive line of electric wiring specialties and accessories made by this Company.

A catalog of this description will be of value to architects in specifying, as it shows the wide opportunities that are offered for selection, to meet the various conditions of interior decorative treatment.

It will be sent on application.



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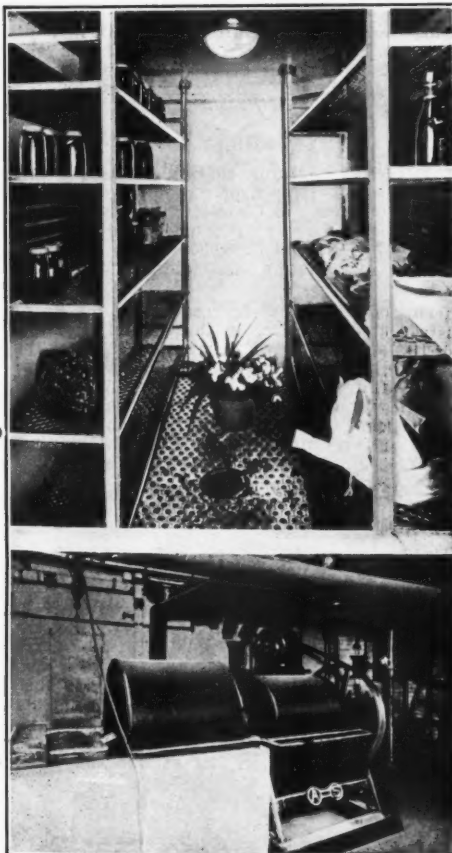
Prof. Woodbridge has used Quilt for this purpose in many other important buildings, such as the South Terminal Station at Boston, Massachusetts State House, etc., with the utmost efficiency and economy, and his very thorough and accurate tests show a heat saving of 83% under most trying conditions. Quilt is almost heat-proof and sound-proof. It is rot-proof, insect- and vermin-proof and unflammable, and the Asbestos Quilt is fireproof.

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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 verify 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.

ARIZONA.

BUCKEYE, ARIZ.—Plans are being prepared by Architect L. G. Knipe, of Phoenix, Ariz., for a new grammar school building to cost about \$20,000.

CALIFORNIA.

PASADENA, CAL.—The Pasadena City School District invites sealed bids for the erection of two school buildings and improvements, one to be located at Lamanda Park and one to be located at Altadena, both within the Pasadena City School District. Plans and specifications for said building are now on file in the office of Marston & Van Pelt, architects, 600 Chamber of Commerce Bldg., Pasadena. Bids to be opened by Board of Education July 30, 1914, at one o'clock P. M., in the rooms of the Board of Education.

PASADENA, CAL.—Plans are being completed for a store building to be erected on East Colorado St., at the corner of Franklin Ave., to be occupied by the Fisk Rubber Company. T. H. Hatchard will be the owner.

SACRAMENTO, CAL.—Sacramento Lodge, No. 9, Fraternal Order of Eagles, has decided to purchase site at Fifteenth and K Sts. to be used ultimately for the erection of a three-story home. It is the plan of the Eagles to erect a \$50,000 structure.

Tentative plans for a hotel at the southwest corner of Sixth and I Sts., on the site of the old Mier home have been drawn for the Mier estate and are under consideration.

SAN FRANCISCO, CAL.—The Board of Harbor Commissioners has approved plans and specifications for foundation for proposed new postoffice building to be erected at water front between Market and Mission Sts., and work on building is to be commenced as early as possible.

SOUTH PASADENA, CAL.—Architect Norman F. Marsh, 424 Spring St., Los Angeles, is preparing plans for a new fire house and city jail to be erected at corner of Mission St. and Mound Ave.

COLORADO.

DENVER, COLO.—The Evans Investment Company is to erect a three-story brick and steel structure on the two lots at 1533 Arapahoe St., according to William T. Child, architect. The building, which will be used for stores, will cost approximately \$10,000. The McMurtrie Manufacturing Company will occupy the building as soon as it is completed.

CONNECTICUT.

MILFORD, CONN.—Architect A. C. Kelley, 107 Wall St., is preparing plans for a bungalow and store to be erected at Morningside, Milford, for Mrs. Edith O'Rourke.

WATERBURY, CONN.—Plans have been figured for a three-family house to be erected on Fifth St., for Marciano Pugliese, 155 Charles St. Henry F. Wenzel is the architect.

WATERVILLE, CONN.—New plans will be prepared for the gymnasium building to be erected in Waterville for the Waterville school district. An appropriation has been made which will enable the building committee to erect a much larger building than was first planned. Ferdinand Wolfe is chairman of building committee.

DELAWARE.

WILMINGTON, DEL.—The Krebs Chemical Company has called for bids for the construction of a two-story factory addition of concrete and brick. The building will cost nearly \$30,000.

Edward Krause and associates have asked for bids for a one-story automobile warehouse, to be erected near Third and French streets. Structure will cost about \$20,000.

Brinckloe & Canning, architects, 2616 W. 16th St., have submitted plans to contractors for bids for a bungalow with slate roof to be erected for John W. Chapple at Broome and Beech streets.

Leon Wilde Crawford has asked for estimates on the erection of a residence at Seventeenth street and River-view avenue for Louis Halle, costing about \$15,000, will be three stories high, of brick, with shingle roof.

Plans for Immanuel P. E. Church in the Highlands, drawn by Frederic M. Mann, architect, are in the hands of the contractors for estimates.

DISTRICT OF COLUMBIA.

WASHINGTON, D. C.—Plans for the restoration of building of the Stoddard Baptist Old Folks' Home at Garfield are being discussed by Board of Trustees at Zion Baptist Church. Revs. W. D. Jarvis and J. T. Clark have been appointed as committee.

WASHINGTON, D. C.—Money for the rebuilding of the Western High School, which was damaged by fire in April, has been approved by House sitting as committee of the whole to-day. Amount specified is \$150,000, for erection of a new building.

FLORIDA.

JACKSONVILLE, FLA.—At recent meeting of officers and directors of new professional building on Adams St., just east of postoffice, it was decided to increase structure to seven stories. The officers of this company are: Charles D. Mills, president; John Simmons, of Fernandina, first vice-president; Frank E. Wood, secretary; Fred B. Noble, treasurer, and Henry Madler, general manager.

GEORGIA.

BAINBRIDGE, GA.—At last meeting of City Council ordinance was passed submitting to voters whether city shall issue bonds to amount of \$20,000 to be used in the erection of a hospital. The vote will be held on August 12.

ILLINOIS.

CHICAGO, ILL.—Henry Meyers, acting for a syndicate known as the Royal Hippodrome Company, has acquired property at corner of Clark St. and Sherman Pl. for the erection of a large hippodrome building and a bachelor hotel, to cost about \$260,000. Plans have been designed by Architect Frank E. Davidson, Monadnock Bldg.

SPRINGFIELD, ILL.—Bids will be received by the Board of Administration in its office in the Capitol Building, Springfield, Ill., up to 3:00 P. M., August 3, 1914, for the erection of buildings at State institutions, as follows: New Building—Infirmary for Men—at the Watertown State Hospital, Watertown, Ill. Contagious disease building at the Kankakee State Hospital, Kankakee, Ill. Nurses' Home at the Chicago State Hospital, Dunning, Ill. Hon. James B. Dibelka, 29 So. LaSalle St., Chicago, is State Architect.

INDIANA.

INDIANAPOLIS, IND.—Plans have been prepared by Architects Vonnegut & Bohn, Indiana Trust Bldg., for erection of 8-story addition to present store of L. S. Ayres & Co., at Meridian and Washington Sts.

IOWA.

COUNCIL BLUFFS, IA.—A new three-story business block, arranged for offices in the upper floors and business on the ground, will be erected in the immediate future by Ed. Rogers, on site south of Brown block on Pearl St. facing Bayliss Park. Architect F. E. Cox of Council Bluffs already has been set at work on plans for the building.

Of course, this store is finished with a washable varnish

INVESTIGATION proves that an ever-increasing number of the better class of buildings are finished with the *only really waterproof varnish*—Valspar. Particularly is this true of buildings wherein no trouble has been spared to obtain the best—such as Lord & Taylor's magnificent new home right in the heart of New York's fashionable shopping district.

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COUNCIL BLUFFS, IA.—Charles T. Officer has had plans drawn for a new building on the site of the old coal yards at 129 Pearl St., opposite Bayliss park, and is considering some of the details of the project.

SHENANDOAH, IA.—Bids will be received until July 25, for erection of schoolhouse in district No. 3, known as White Cloud. Plans on file at the Security Trust and Savings Bank.

KANSAS.

FRONTENAC, KAN.—Bids will be received by the Board of Education of Frontenac for a new two-story brick addition to Central school building, until 7:30 o'clock P. M., on the 29th day of July, 1914, for the erection and completion of the proposed new addition, according to the plans and specifications made by G. J. Munn, architect, Pittsburg, Kansas.

LAWRENCE, KAN.—Architect W. F. Gernandt, 513-14 Karstad Bldg., Omaha, Neb., is preparing plans for three school buildings, to cost \$20,000 each. Bids will be taken about August 1, by architect and building committee.

KENTUCKY.

LOUISVILLE, KY.—Building Inspector W. J. O'Sullivan has announced that permit for erection of seven-story addition to Fireproof Storage Company's building at 308 West Green St. will be issued within a few days. Plans and specifications call for a new structure of concrete and steel.

NATOMA, KY.—The city is making an effort to hold a bond election for the erection of a \$16,000 school building. The new structure will be of brick.

MARYLAND.

BALTIMORE, MD.—The United States Woolen Mills Company, which has been looking for a site on which to erect its new building, has selected the old Miller's Hotel property on Paca St., north of Pratt. The site will be improved with a seven-story building to cost about \$200,000. An architect will be chosen in the next few days and work is expected to be begun shortly.

BALTIMORE, MD.—Bids for the steel work for proposed theatre at southeast corner of Park Ave. and Clay St. for Garden Company will be due in next few days, and shortly afterward estimates for general contract will be submitted. Cost of proposed structure has been placed at \$165,000.

BALTIMORE, MD.—The Carrollton Hotel on St. Paul St., between Baltimore and Fayette Sts., will shortly be remodeled and fitted for occupancy by its present owner, the American Indemnity Company, of which J. Arthur Nelson is president. The plans have been prepared by Architect Charles E. Cassell, Law Bldg.

GLEN ECHO, MD.—Three buildings, to cost about \$225,000, as a memorial to Clara Barton, are to be started next fall at Red Cross station, Glen Echo, Md., where the organizer of the American Red Cross died in April, 1911. Plans have been drawn by Architect A. B. Pierson of Washington, D. C.

MASSACHUSETTS.

BOSTON, MASS.—Architects Cram & Ferguson, 15 Beacon St., are preparing plans for rebuilding of new central hall for Phillips-Exeter Academy.

HAVERHILL, MASS.—Architect James A. Perkins, of Haverhill, who is preparing plans for the new General Gale Hospital, has reported that he thinks that they will be submitted so that the improvements of the children's home and the erection of the additional buildings can be accomplished within the appropriation of \$40,000. The architect says that he expects to have the plans and specifications completed so that bids may be asked for on the work within a short time.

MICHIGAN.

GRAND RAPIDS, MICH.—The Board of Trustees of Calvin College and the seminary are considering plans for erection of new students' dormitory.

GRAND RAPIDS, MICH.—John Caulfield is to build a four-story mercantile structure on Ellsworth Ave., S. W., for which plans have recently been drawn. It will be of mill construction and will supplant four old buildings.

HANCOCK, MICH.—The Finnish Methodist people are planning to erect a church edifice. Rev. Pitkanen is missionary. Site has been purchased on Lake Linden Ave., between Florida and Iroquois Sts.

MINNESOTA.

ALBERT LEA, MINN.—Architects Hoffman & Mosse, Leland Block, Rochester, Minn., are preparing plans for a new \$55,000 apartment house.

BEMIDJI, MINN.—Architect R. C. Buckley, St. Cloud, and Round & Wager, associate architects, St. Paul, Minn., are preparing plans for B. P. O. Elks' Lodge, No. 1052. Cost \$33,000.

BRAINERD, MINN.—Architects Vernon J. Price & Co., Palladio Bldg., Duluth, have plans in hand for a four-story and basement fireproof block to be built for George Gardner at Brainerd. It is to be of reinforced concrete construction, and will cost \$80,000.

CLOQUET, MINN.—Architects Vernon J. Price & Co., Palladio Bldg., Duluth, have plans in preparation for a Holmberg school to be located near Cloquet. It will have two rooms and quarters for the principal on the first floor. The same firm will have plans ready for figures next week for a frame and stucco home to be built for Louis Dworshak in Crescent View Park.

DULUTH, MINN.—Architects Holstead & Sullivan, Alworth Bldg., have plans out for figures on a frame and stucco house for H. J. Bergen to be built on Fourth St., between Twentieth and Twenty-first Aves., at a cost of about \$6000.

PARK RAPIDS, MINN.—Architects A. Moorman & Co., St. Paul, Minn., have prepared plans for enlarging and remodeling of banking room for First National Bank.

PLATO, MINN.—A new school building with four class rooms will be erected according to plans and specifications submitted by Herman A. Miller, architect, St. Paul, Minn. Plans have been approved by State Commissioner.

ROCHESTER, MINN.—Plans are in progress for hotel for J. W. O'Rourke, 32 E. Zumbro St. Cost \$25,000. G. Schwartz & Co., are the architects, Sioux Falls, S. D.

ROCHESTER, MINN. Plans are out for figures from the office of Architects Hoffman & Mosse, Leland Block, for a new Methodist Episcopal Church, to cost \$55,000.

ST. PAUL, MINN.—Members of the Christ Lutheran Church, Thirty-fourth St. and Thirty-first Ave., south, Minneapolis, are to have a new home. The new church will cost \$12,000 and will be a frame structure.

MISSISSIPPI.

MERIDIAN, MISS.—Threefoot Bros. & Co. are planning to build and operate thoroughly modern automobile salesroom and garage in near future, which will be only one of its kind in the state. Plans and specifications have already been drawn for a three-story, fireproof building on Sixth St., between Twenty-first and Twenty-second Ave., and work on the new building will start about August 1.

MISSOURI.

CARTHAGE, MO.—At the July meeting of the School Board, plans were adopted for the new Lincoln school building, for the erection of which a bond issue of \$10,000 was voted this spring. An architect will draw the specifications for the building and bids will be advertised for in the immediate future.

NEBRASKA.

GOTHENBURG, NEB.—Architect M. N. Bair of Hastings is preparing plans for a Carnegie Public Library to cost \$8000. Contract will be let July 29, 1914.

HASTINGS, NEB.—Architect M. N. Blair, Hastings, Neb., has prepared plans for a brick, 3-story and basement store building, to cost \$30,000, for Stein Bros. Co., Hastings, Neb. Bids will be opened Aug. 1, by owner.

PERU, NEB.—Architect J. H. Craddock, Omaha, will prepare plans for \$100,000 model school building.

OMAHA, NEB.—E. Rogers has purchased vacant lot south of Brown Block on South Main St., and is planning to erect a 3-story brick office and store building.

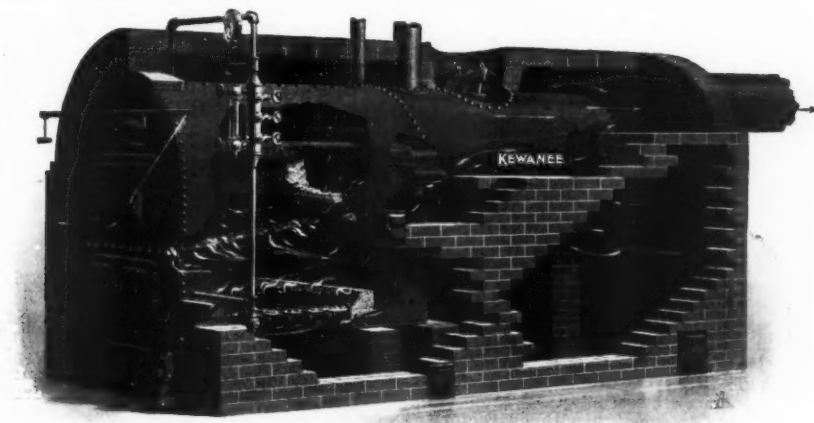
NEW HAMPSHIRE.

MANCHESTER, N. H.—The plans submitted by Wilfred E. Provost of F. T. Provost and Company, of Manchester, for the proposed isolation hospital, have been selected from several sets by the Board of Health. The cost of the proposed building, it is said, will be under \$50,000. It will be located on the site of the old city farm on the Mammoth Rd.

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MANCHESTER, N. H.—The John B. Varick Company and Roger G. Sullivan are jointly to erect a new block on Elm St., on the location of the ruined Sullivan block which was destroyed during the Varick-Sullivan fire. The new building is to be a modern four-story structure. Architect C. R. Whitcher of Manchester will have charge of the building of the new block, and plans will be ready within a short time.

NEW JERSEY.

CAMDEN, N. J.—Architects Ballinger & Perrott, 1211 Arch St., Philadelphia, are planning a four-story shipping building for the Victor Talking Machine Company, of Camden, N. J.

COLLINGSWOOD, N. J.—Architect Clyde S. Adams, 1233 Arch St., Philadelphia, has finished plans for four 2½-story houses at Collingswood, N. J., for David Evans.

FLEMINGTON, N. J.—Architects John N. Pierson & Son, Perth Amboy, will prepare plans for high school to cost \$52,000.

MILLVILLE, N. J.—A resolution has been drawn to be introduced at a special meeting of the Millville Board of Education, asking that the Board of Estimates certify to the City Commission that the proposed bond issue for a new eighteen-room school building of \$76,000 be increased to \$79,000, as \$3000 is needed for the site.

MOORESTOWN, N. J.—Architect Arnold H. Moses, 136 S. 8th St., Philadelphia, is preparing plans for a \$7000 house at Moorestown, N. J., for Walter Lippincott.

NEWARK, N. J.—Architects Del Guercio & Gonnelli are working on plans for a four-story brick apartment building which Louis Signovini contemplates erecting at 73 High St. The estimated cost is given as about \$11,000.

Estimates are being taken by August M. Kleemann, 741 Broad St., as architect, for a three-story frame building to be erected at 916 Bergen St. for Henry Mull. The approximate cost is \$6000.

NEW YORK.

BEACON, N. Y.—James Peattie of this city has received official notification from the Post Office Department at Washington that the plans and specifications submitted by him have been approved, and he will at once proceed with the erection of his proposed building for new Beacon Post Office at the corner of Main and Cedar Sts.

BROOKLYN, N. Y.—The Rev. Dr. Robert J. Kent, pastor of the Church in the Gardens, Forest Hills, has announced that word had been received that Mrs. Russell Sage intended to erect a permanent church edifice on site selected, corner of Ascan Ave. and Greenway North.

The John B. Bradley Company has purchased ten lots on Seventy-first St. and on Seventy-second St., near Ridge Boulevard, and adjoining the Ridge Club, Bay Ridge, and will at once construct two groups of latest types of dwellings in keeping with character of surrounding improvements.

BROOKLYN, N. Y.—Michael Minden will erect a theatre and restaurant on the site of the Bushwick Hospital, at Howard Ave. and Monroe St. Architect Louis Almen-dinger, 926 Broadway, has prepared plans for the theatre, which will have a seating capacity of about 600.

LOCKPORT, N. Y.—The Board of Education in special meeting has adopted a resolution limiting cost of the enlargement of the high school to \$85,000, to include architect's fees. The balance of the appropriation of \$100,000 will be necessary for furnishings, etc. The architect is William McNeil Smith of New York.

MIDDLETOWN, N. Y.—Board of Managers has stated that plans are being considered for an enlargement to Thrall Hospital to cost about \$63,000.

NEW YORK CITY.—Franklin Pettit, President of the Realty Company of America, has purchased property at 316 W. 86th St., and is planning the erection of a 12-story apartment building.

Architects Warren & Wetmore, 16 E. 47th St., have filed plans for a 16-story fireproof store and loft to be erected on Madison Ave., corner of 28th St., for Robert W. Goelet, 9 W. 17th St.; cost \$350,000.

Plans have been filed by Architect A. Mizner, 431 Fifth Ave., for alterations to a 6-story dwelling on Fifth Ave., for Wm. H. Erhardt, Cedarhurst, L. I.; cost \$38,000.

NEW YORK CITY.—Architect J. J. Eberle, 489 5th Ave., has filed plans for alterations to a 4-story loft on 54th St., for M. Wortman, 419 W. 119th St. Cost \$10,000.

NEW YORK CITY.—Architect L. A. Sheinart, 194 Bow-ery, has filed plans for a 1-story store and dance hall to be erected on 135th St. for James Everard's Estate, 22 William St. Cost \$25,000.

Plans have been filed by Architect C. P. H. Gilbert, 1123 Broadway, for a 12-story apartment house to be erected at 1066 Fifth Ave., for the 1067 Fifth Ave. Co., Inc., 45 Cedar St. Cost \$260,000.

Architect Charles B. Meyers, 1 Union Sq., has filed plans for a 5-story brick store and apartment to be erected on 176th St. for S. & O. Construction Co. (Barnett Soltz, 574 St. Nicholas Ave., President). Cost \$65,000.

Architect W. S. Connell has filed plans for alterations to a 3-story apparatus house on North Moore St., for Fire Department, City of New York. Cost \$12,000.

NEW YORK CITY.—Messrs. Ludlow & Peabody, 101 Park Ave., have been appointed architects for the St. James Presbyterian Church to be erected on site on north side of East 137th St.

Architects Starrett & Van Vleck, Everett Bldg., have prepared plans for a 20-story office building to be erected on 40th St., for the 8 West 40th St. Company.

NEW YORK CITY.—Architect Edward A. Munger, 15 Dey St., has filed plans for alterations to a 4 and 5-story telephone exchange for N. Y. Telephone Company. Cost \$15,000.

Plans have been filed by Architect Albert E. Davis, 258 East 138th St., for alterations to a 1-story stone church on 3rd Ave., for Reformed Church of Mott Haven (Oscar M. Voorhees, 350 E. 146th St.). Cost \$16,000.

Architect Albert E. Davis, 258 E. 138th St., has filed plans for alterations to a 5-story brick factory on Southern Blvd., for S. Winter & Co. Cost \$10,000.

Architects Mulliken & Moller have designed plans for two high-class 12-story apartment buildings to be erected on 86th St., between West End Ave. and Riverside Drive, for a new corporation headed by the architects. Cost \$450,000 each.

NEW YORK CITY.—Architect J. Fisher, 25 Avenue A., has filed plans for a 7-story loft and stable to be erected on Clinton St. for D. Sokolski, 354 Grand St. Cost \$25,000.

Plans have been filed by Architect Franz Wolfgang, 535 E. 177th St., for a 5-story apartment on Intervale Ave. for I. & H. Const. Corp. (J. A. Bravy, 254 Saratoga Ave., Brooklyn, President). Cost \$25,000.

Architect C. B. J. Snyder, 500 Park Ave., has filed plans for a 5-story brick school on Intervale Ave. for City of New York. Cost \$320,000.

Plans have been filed by Architect N. J. Garvin, 3307 Third Ave., for a 2-story brick garage on 188th St., corner of Concourse, for John M. Ireland, 2505 Creston Ave. Cost \$15,000.

Architect W. H. Hoffman of Philadelphia has filed plans for alterations to a 5-story theatre on Broadway, corner of 41st St., for Broadway & 41st Co., Philadelphia, Pa. Cost \$30,000.

Architect D. C. N. Collins, 29 Broadway, has filed plans for 8-story store and office building to be erected on 48th St., for R. L. Bergohl, 130 W. 77th St. Cost \$40,000.

The Tremont Architectural Co., 401 Tremont Ave., has filed plans for two 5-story brick apartments to be erected on Brook Ave., corner of 169th St., for Benjamin Benenson, 407 E. 153rd St. Cost \$95,000.

NIAGARA FALLS, N. Y.—Alexander Zaleski will erect a 2-story brick building at corner of East Falls & Eleventh Sts. Estimated cost \$16,000.

ROCHESTER, N. Y.—Bids will be received by the Board of Education at its office, Municipal Building, Fitzhugh St., to 12 o'clock noon of Friday, July 31, 1914, for the erection of Silvanus A. Ellis No. 26 School, on Bernard St., according to plans and specifications by the architect, Edwin S. Gordon. J. S. Mullan is Secretary.

The Knights of Columbus are planning the erection of a new \$150,000 club house. James P. Jones is Deputy Grand Knight.

UTICA, N. Y.—Plans will be prepared by Architects Agne, Rushmere & Jennison, 211 Arcade, for addition to high school, to cost about \$500,000. D. J. Kelly is Clerk Board of Education.

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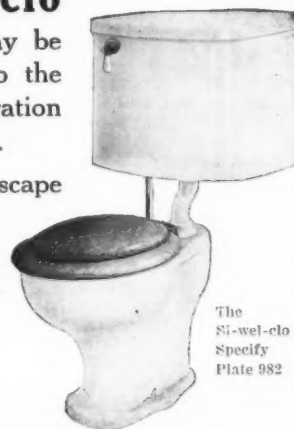
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WHITE PLAINS, N. Y.—Board of Education has sold \$35,000 school bonds, and is planning to erect new Battle Ave. School.

NORTH CAROLINA.

SALISBURY, N. C.—Salisbury Aldermen have decided to erect modern school building.

V. Wallace & Sons will erect business block on Main St. Structure will be 3 stories or more.

The Salisbury Hardware & Furniture Company will erect business block on Church St. It will be of brick.

NORTH DAKOTA.

BROCKET, N. D.—Bids will be received till 1 P. M., Aug. 7, for 3-room school. Plans by Architect J. A. Shannon of Devils Lake, N. D.

SCHAFER, N. D.—Bids will be received until 2 P. M., July 24, for four school houses. Plans filed with A. L. Rothie, Berg, N. D., and also with County Superintendent of Schools at Schafer.

OHIO.

CANTON, O.—Architects C. C. and A. L. Thayer of New Castle, Pa., are preparing plans for a large school building in Canton. The building will be fireproof, contain sixteen rooms and an auditorium and will cost \$100,000.

CINCINNATI, O.—The Metropolitan Baptist Church congregation are planning to erect a church edifice at Eighth and Cutler Sts. Dr. J. Franklin Walker is pastor.

CLEVELAND, O.—The F. B. Stearns Company, Cleveland, Ohio, makers of Stearns-Knight cars, will soon erect a mammoth factory addition comprising approximately a quarter of a million square feet of floor space.

CLEVELAND, O.—Bids will be received until Aug. 3 by Clerk Board of Education, for erecting Empire School, Empire Ave.

COLUMBUS, O.—Nearly \$500,000 will be expended in the near future for a home in this city for aged Ohio school teachers, under the provisions of the will of Mrs. Virginia Gay. The will gives about \$400,000 for the teachers' home, and \$50,000 for a hospital at Vinton, Ia., where Mrs. Gay spent most of her life.

DAYTON, O.—Architect W. L. Jackle has prepared plans for the erection of new school for St. Anthony parish, and are now in the hands of the parish building committee. Bids will be received shortly. Cost \$40,000.

DAYTON, O.—Tentative plans and specifications for a proposed warehouse system at the country infirmary have been prepared by Architect Gustav Niehus, Callahan Block.

OREGON.

ALBANY, ORE.—Plans are being prepared by Architects C. H. Burggraf, Albany, for 2-story concrete school, to cost about \$50,000.

MEDFORD, ORE.—Bids will be received until Aug. 22 by supervising architect, Washington, D. C., for erection of U. S. postoffice and court house.

NORTH BEND, ORE.—J. C. Hammel will have plans prepared for \$60,000 hotel on Simpson lots at S. W. cor. Montana St. and Sherman Ave. Stock company will be formed. J. E. Tourtellotte of Boise will be the architect.

PORTLAND, ORE.—Architects Whitehouse & Touilhoux will prepare plans for erection of building at 4th and Mamhill Sts., for T. Scott Brooke.

PORTLAND, ORE.—Bids will be asked about Aug. 15 for erection of proposed \$50,000 barn to be erected by the city at 16th and Jefferson Sts. Architect Charles C. Rich is preparing plans.

J. D. Hamilton is having plans prepared for proposed 3-story building to cost \$30,000 to \$40,000 on south side of Oregon St. between E. 3rd and Union Ave.

PENNSYLVANIA.

ALLENTOWN, PA.—At the regular weekly meeting of Constantine Lodge, No. 1113, I. O. O. F., the proposition of erecting an Odd Fellows Home on the Erdman property on North Ninth St., between Linden and Turner, was passed unanimously by the members present. The home is to be under the direction of the four lodges in this city and is to cost in the neighborhood of \$15,000.

ALLENTOWN, PA.—Project is being considered for erection of large iron, steel and brass plant in this city, to cost about \$200,000. Dr. Henry F. Brown of Allentown is interested.

CHESTER, PA.—Brown and Whiteside, architects, of Wilmington, Del., have asked for bids for extensive alterations and additions to the store building of The Cross Company, Chester.

COLUMBIA, PA.—Bids will be received by the Property Committee of Borough Council, William W. Fairer, chairman, until 4 o'clock P. M., July 24, 1914, for the alterations and additions to be made to the Town Hall Buildings at Columbia, Pa. Drawings and specifications may be obtained at the office of the architect, Granville E. Paules, 200 Bucher Bldg., Columbia, Pa. C. W. Stevenson is Secretary.

EBENSBURG, PA.—In connection with the enlargement of the Courthouse, the Advisory Committee has approved the tentative plans of Architect Gordon, of New York, thereby selecting him as architect, and decided to ask bids on two different plans, one providing for the construction of three wings to the building, the other providing for the construction of only two wings. Architect Gordon has been instructed to have detailed drawings ready for August 5, the next sitting of the Court, which will be called upon to approve the plans.

ERIE, PA.—Architects Shutts & Morrison, Marine Bank Bldg., have prepared plans for a store and apartment building for Mr. F. G. Elsert. Cost \$40,000.

Plans are under way by Architects Shutts & Morrison, Marine Bank Bldg., for a 4-family apartment to cover part of Mill Creek at corner of Sixth and German Sts.

Shutts & Morrison, architects, Marine Bank Bldg., have been commissioned by the Andrews Land Company to erect a bungalow in Land Lighthouse Park.

MIDDLETOWN, PA.—The Kunkel and Dunbar farms have been purchased by the Keystone State Fair & Industrial Exposition Company, and is planning to erect grandstand to seat 60,000 people. Sum of \$750,000 will be expended in building operations.

PHILADELPHIA, PA.—Estimates are being invited by the Smith-Hardican Company for a one-story brick and stone church building, to be erected at Twenty-second and Moore Sts., for the Twenty-second St. Methodist Episcopal Church.

Architects Borzner & Wood are preparing revised plans for a six-story addition, to be built at 707-709 Filbert St. for H. Bernstein.

PHILADELPHIA, PA.—Plans have been filed in the Bureau of Building Inspection by James G. Doak & Co., for a three-story brick and stone factory building, and a one-story brick storage building to be erected for the Cameron Company at Glenwood Ave. and N. St. The cost will be about \$78,000.

PHILADELPHIA, PA.—At a cost of \$21,000 three three-story brick stores and dwellings are to be built at the southwest corner of Twenty-second and Toronto Sts. and the northwest corner of Twenty-second and Fox Sts. for Davidson and Silberman.

An \$18,000 house is to be built by William W. Young for Walter B. Smith at Sixty-sixth St. and Woodbine Ave., Overbrook. The house will be of brick construction and magnificently equipped throughout. Horace Trumbauer, Land Title Bldg., is the architect.

Plans are being prepared by Sauer & Hahn, 1112 Chestnut St., for a two-story store and loft building to be erected at 1309 Vine St. for H. S. Marks. Bids will be invited in about ten days.

Plans are being prepared for erection of dwelling at corner of 54th St. and Woodbine Ave., for the Commonwealth Title & Trust Company.

PHILADELPHIA, PA.—Two large elementary schools, one in South Philadelphia and another in Kensington, are to be erected by the Board of Education.

PHILADELPHIA, PA.—Henry P. Schneider is taking revised estimates on plans for a church and parsonage building to be erected on Hunting Park Ave., east of Germantown Ave., for the Halsey Methodist Episcopal Church.

PLEASANT VALLEY, PA.—Bids will be received by J. H. Mumbower, Sec'y of Bldg. Committee, until 12 A. M., August 4, 1914, for the building of the P. O. S. of A. Hall, to be erected at Pleasant Valley, Pa., opposite the new Springfield Township High School Building.

READING, PA.—Christ Evangelical Church, Reading, has decided to erect a new edifice at Eleventh and Robeson Sts., to cost at least \$15,000.

SUNBURY, PA.—St. John's Methodist Episcopal Church of this place, of which the Rev. Alexander Lamberton

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is pastor, has decided to build a new church to cost from \$40,000 to \$60,000.

WAYNESBORO, PA.—The Y. M. C. A. building will be erected on North Potomac Ave., near Main St. Architect Hussey will prepare the plans.

WILSON, PA.—Architect A. W. Leh, of South Bethlehem, has prepared plans for a \$24,000 addition to the Wilson Township High School.

RHODE ISLAND.

LINCOLN, R. I.—Town of Lincoln will erect a 2-story, 6-room brick schoolhouse in village of Saylesville. Architects of Rhode Island are invited to present before August 1, 1914, plans for construction of same. Alexander Leslie, Sec'y of Commission, Saylesville Bleacheries, Saylesville, R. I.

PAWTUCKET, R. I.—Plans have been prepared by Architect Robert C. N. Monahan, of Pawtucket, for school building to be erected on Abbott St.

PROVIDENCE, R. I.—Architect Knight C. Richmond will prepare plans for new police station on East Side.

TENNESSEE.

DECATUR, TENN.—Erection of Central High School is being planned by County Court of Meigs County.

KNOXVILLE, TENN.—Plans for Beaumont and Camp Grove school buildings similar to those by which the Karnes building was erected, have been adopted by grammar and high school boards in joint session. The plans call for ten-room buildings, with two stories and basement. Plans for the Powells and Smithwood schools have not yet been worked out.

MEMPHIS, TENN.—At a joint meeting of committees representing several branches of Baptist Church, Memphis was selected as location of proposed National Negro Baptist Theological Seminary, which will be established with \$100,000.

TEXAS.

COLEMAN, TEX.—The stewards of the Methodist Church South have offered a resolution which was unanimously adopted, the purport of which was that they build a new brick church structure to cost between \$35,000 and \$40,000. The Baptist Church here also contemplates erection of new church edifice of brick this fall.

EL PASO, TEX.—Laskin Bros., who own the property at the corner of Broadway and Overland Sts., are having plans drawn by Trost & Trost for a concrete store building to be erected on the property owned by them.

Another apartment house is to be built on West Boulevard, at the intersection of this street with Santa Fe St. J. S. Fennell is having plans drawn for a \$12,000 apartment house to have 10 apartments, two full apartments being planned in the basement.

EL PASO, TEX.—El Paso Lodge, No. 284, Independent Order of Odd Fellows, is to have a home costing \$25,000. The new structure will be located at the corner of Franklin and Santa Fe Sts. Plans contemplating the erection of a three-story and basement building are all but completed.

MEXIA, TEX.—The Mexia School Board has voted to build a ward school building of brick, on the West Side. This building will be designated to accommodate 300 children and the estimated cost is \$10,000. The issuance of bonds will be necessary for the construction of this building.

PARIS, TEX.—The taxpayers of the Roxton independent school district have voted to authorize the School Board to issue bonds to the amount of \$12,000 for the purpose of erecting an addition to the present school building, which was built a few years ago by a bond issue of \$15,000.

SAN ANTONIO, TEX.—Plans for the addition to the Courthouse have been revised and new bids will be sought. The County Commissioners have authorized the County Auditor to advertise for bids for the construction of the addition. The bids are to be opened July 24.

Bids for the construction of a new school building in San Fernando Addition and a four-room concrete addition to School No. 17 on Calhoun St., have been rejected by School Board. The Board considered the bids too high. The Secretary was instructed to advertise for other bids.

SAN ANTONIO, TEX.—Mrs. Johanna Steves has acquired site at Houston and Alamo Plaza, and will erect large office building to cost \$425,000. She is also having plans prepared for 8-story office building on St. Mary's St., to cost \$100,000.

TEMPLE, TEX.—Plans are being considered by Santa Fe Ry. Employees Hospital Asso. for erection of wing to present general hospital to cost \$100,000.

UTAH.

SALT LAKE CITY, UTAH.—Bids for the construction of a three-story \$30,000 apartment building at First West and First South will be called for by Monson & Price, architects, with offices in the Vermont Bldg.

VIRGINIA.

PORTSMOUTH, VA.—The Turney Home for Boys, situated in Bank St., is to be enlarged considerably by the addition of an ell, which will provide new dormitories, bath, kitchen and dining room. Architects Neff & Thompson of Norfolk Va., will submit plans.

WISCONSIN.

APPLETON, WIS.—Appropriation of \$10,000 has been voted by County Board for rebuilding of barns at County Asylum. Bids will be advertised as soon as plans are prepared. John Tracy is Chairman of Committee of the Board.

CHIPPEWA FALLS, WIS.—The Knights of Columbus have purchased the residence of Mrs. William McRae at 13 East Spring St. They propose to erect thereon a lodge hall and club building that will be an ornament to the city. Plans for the new structure are under way.

LADYSMITH, WIS.—Bids will be received until 7 P. M., August 3, 1914, for a brick and stone high school building. Plans by Architects Parkinson & Dockendorff, La Crosse, Wis. Cost \$60,000.

MADISON, WIS.—Board of Education has rejected all preliminary plans for new Lincoln and East Side school buildings. Architect F. L. Kroeneberg has been instructed to prepare plans for Elmside building, and Claude & Starck for new Lincoln building.

MILWAUKEE, WIS.—Two sets of plans have been prepared for the Third Ward Natatorium. One with a gymnasium would cost \$58,000, the other plan without the gymnasium would cost \$48,000. Plans are about completed for the Lincoln Ave., and Vliet St. fire houses which will cost \$30,000 each. The houses will be built for automobile apparatus and will be without towers.

WASHINGTON.

SEATTLE, WASH.—Plans have been completed by School Archt. Edgar Blair, for 3-story reinforced concrete and brick school to be erected in Ballard Dist., to cost \$300,000.

SEATTLE, WASH.—Preliminary plans have been prepared by Archt. J. Merrill Brown, Northern Bank Bldg., for natatorium on Western Ave. and Virginia St. S. of Army, for Erwin Baruch, 1621 Summit Ave. Cost \$100,000.

Archt. J. L. McCauley, New York Bldg., has completed plans for 10-story hotel building to be erected on S. W. cor. Jackson St. and Maynard Ave., for Rainier Heat & Power Co. Bids are being received.

TACOMA, WASH.—Agreement has been made by the Elks and local chapter of architects, whereby an open contest will be held for architect work on new \$100,000 Elks' club house. Competition will close Aug. 1. D. Williams, Federal Bldg., Tacoma, is Chairman of Building Committee.

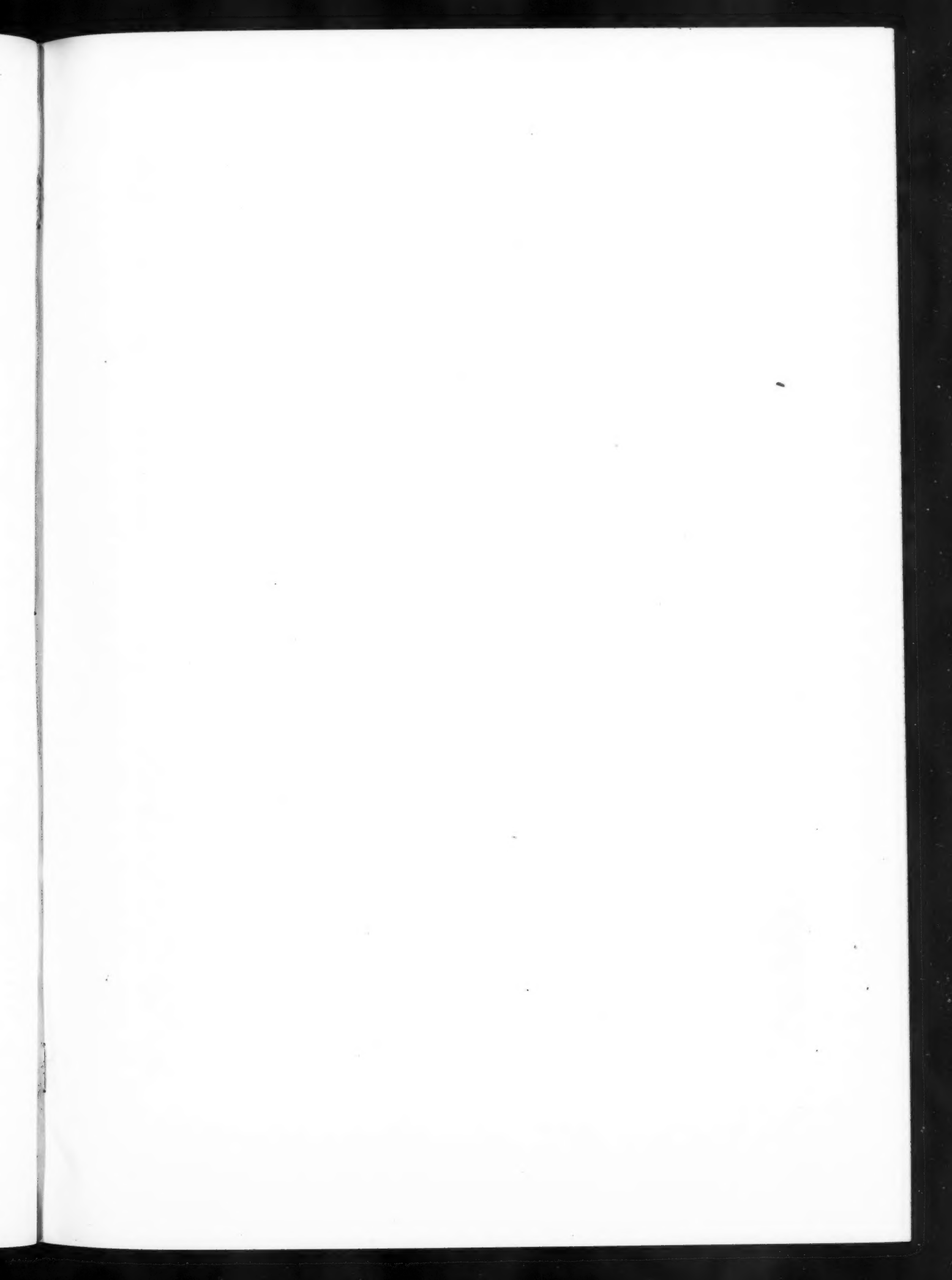
TACOMA, WASH.—Bids are being received for the erection of new \$100,000 freight shed for the Oregon-Washington Railroad & Navigation Company.

CUBA.

CIENFUEGOS, CUBA.—Architects Ludlow & Peabody, 101 Park Ave., will prepare plans for a Presbyterian Church and school building to be erected by Board of Home Missions. Also for a church and school building for the same owners as Sancti Spiritus, Cuba.

CANADA.

ONTARIO, CAN.—A new church home is to be erected here for the First Baptist congregation. Norman F. Marsh, of Los Angeles, is the architect.



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