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VIEW OF PROPOSED DEVELOPMENT IN THE CENTER OF THE CITY OF CHICAGO, LOOKING OVER CIVIC CENTER TO GRANT PARK AND LAKE MICHIGAN

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AMERICAN CITY PLANNING—PART IV

By FRANK KOESTER, *Consulting Engineer*

THE GREAT GROUND PLAN



IN the laying out of the great ground plan of a city, the utmost skill and experience are necessary. It is indeed, an indication of positive talent to develop the ground plan of a city and infuse it with strength and originality, giving to the city a definite and individual character and at the same time fulfilling the numerous and complex practical requirements of the problem.

The great ground plan must be adapted to the requirements of the city, to the configuration of the land, to the presence

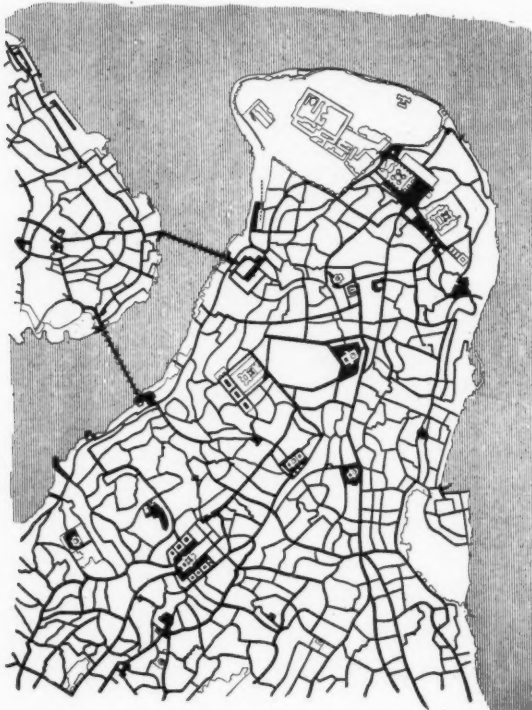
of water, to the flow of traffic and to the nature of the city's activities. A maritime city on a hilly site, for example, will have a very different plan, from that of a flat inland city devoted to manufacturing. Every problem will present its own peculiarities and these must be properly utilized in giving the plan its own individuality and in making it serve best the purposes to which it is to be put.

No Procrustean ground plan to fit every city can be laid out, and every problem must be treated on its own merits. The laying out of a city's plan is of such vital importance that it deserves the utmost care and attention for even very slight alterations

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will mean the loss or saving of so much time and expense, year in and year out, that no pains should be spared in the original planning.

The great ground plan includes the whole lay-out of the streets, avenues, civic centers, parks, boulevards, piers, bridges, esplanades and grounds. In the planning of such a lay out, the fundamental principle is that of the classification of districts according to their uses. The district units are to the



GREAT GROUND PLAN OF CONSTANTINOPLE

A profusion of curved narrow streets, producing the greatest degree of picturesqueness and variety, but not adapted to modern conditions.

whole city what the separate buildings are to the civic center, and the principal problems of the planning are to get suitable arrangements of districts.

The whole purpose is to increase the health, comfort, convenience and self respect of the public, and in order to accomplish this, it is absolutely essential to have the districts properly arranged.

In the laying out of districts, the objects to be accomplished are the providing of healthful living and working conditions, prevention of congestion, convenience of

distribution, suitable relation of the homes of the workers to their places of employment and the grouping together of the homes of those whose incomes and tastes are generally similar.

The principal units which must be considered in the laying out of the great ground plan, are the civic center section, the banking and office building section, the wholesale district, the manufacturing district, the warehouse district, the retail store district, amusements, social centers, food product districts, terminals, miscellaneous light and heavy industries, parks and recreation grounds and special school and college grounds; and in the remodelling of cities and the laying out of city blocks, the various constituents must be particularly considered in their relation to each other. This involves various forms of communication, such as streams of traffic, land and water transportation both of passengers and merchandise, and a consideration of the sources of the city's raw materials and the methods whereby they are transported.

Future expansion is also one of the most important problems engaging the attention of the civic engineer, and the utmost care should be given to the probable direction of its extension, the presence of natural obstacles and of natural incentives to growth.

The problem, in this respect, will be greatly simplified, if proper regulations are enforced, as growth along the most desirable avenues can then be stimulated and the deflections incident to real estate speculation and other causes avoided.

Presuming that the architect and civic engineer are in a position to plan the city, with the assurance that regulations are such that the plan will be carried out, perhaps the most nearly ideal ground plan, from a theoretical point of view, as explained in a previous article, is that in which the main civic center is placed in the center of the city, with concentric circumferential streets at intervals surrounding it, interconnected with radial, diagonal and transverse streets and avenues.

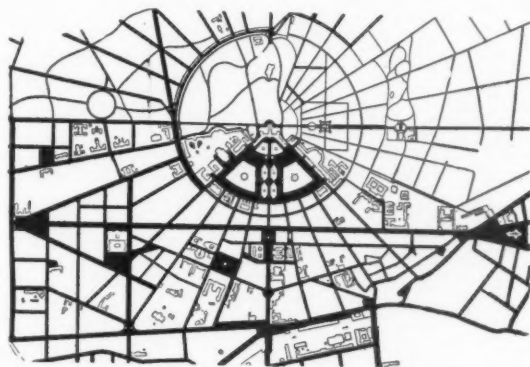
Such a plan, which may be termed the circular plan, while showing up well on paper, is not without its serious disadvantages, and it does not always work out satisfactorily in practice. Circumferential

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streets become just as monotonous as straight streets, and to relieve this effect, diagonal and transverse streets must be cut through, producing the necessary focal points, but at considerable waste of small, irregularly shaped spaces. The effect produced is of a city with little or no individuality. The circular plan, is so to speak, a machine-made plan, and its adoption would result in a sort of standardized city, every example of which would be monotonously like every similar one.

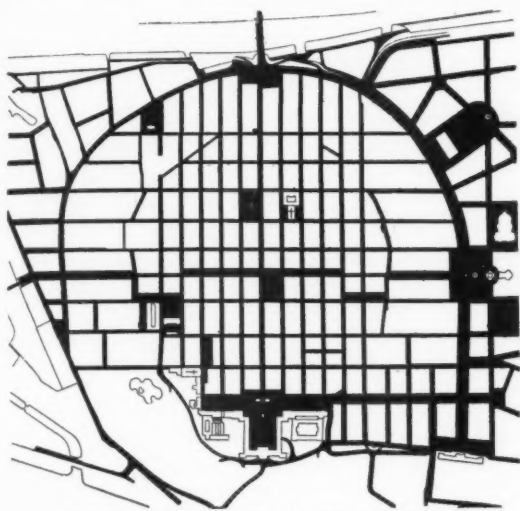
In order to have an individuality of its own, a city must be composed of portions, each of which has its own minor individ-

Similarly, local streets should have definite limits, and their length should be less if they are narrow, than if they are wide. They may often, with advantage, terminate



GREAT GROUND PLAN, KARLSRUHE

An exceptionally well planned city, full of individuality and variety. The portion above the median line of the great circle is a forest park. The building regulations provide for sixteen zones.



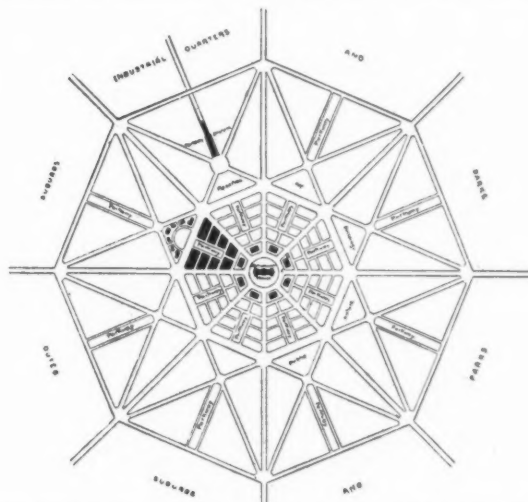
GREAT GROUND PLAN OF MANNHEIM

A plan which with its outer horseshoe has proven highly satisfactory. It offers a solution of street replanning for American cities with their gridirons, and has been followed in the proposed plans of Chicago and other cities.

uality. This individuality is dependent upon its street plan, its buildings, and the way they are arranged to strike the eye. In order that a portion of a city may have its own individuality, it must in some way be demarked from the remainder. Such demarkation cannot be accomplished when all the streets run to great lengths, as mere extent defeats the sense of unity, presenting so much for the eye to see and the mind to grasp, that any feeling of individuality is lost.

Streets should not, therefore, be of great and indefinite length. Even the most important avenues should run from one point to another, and not be extended in straight lines out into the rural districts.

against other streets in T or L plan, or they may be placed out of parallel and at varying distances, since uniformity in the length of blocks defeats the sense of individuality also. In local parts of the city, the eye should always find an object upon which to fall, either of buildings at the ends



PLAN OF AN AUSTRALIAN CAPITAL PROPOSED BY JOHN SULVAN

of streets, monuments at intersections or other streets diverging. Only on getting out into the main avenues should comparatively long vistas be found.



PLAZA NAVONA, ROME

A long, narrow but well arranged square, affording an effective view of monumental building and fountains.

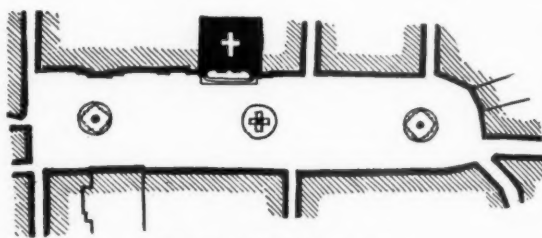
The principles outlined are the fruit of the experience of city builders of the past, applied to modern conditions, and the past has been full of mistakes. Many cities have been built on more or less idealized plans, and while in some such cases the result has been pleasing from an æsthetic point of view, the tendency has been to pay too little consideration to individuality, and little, if any, to practical considerations and industrial developments.

The utility of the city, as distinguished from its beautification, demands a greater degree of attention than has been accorded it, and the response to this demand by German cities has been largely responsible for their progress.

A thorough familiarity with the ground plans of the leading European cities is of course essential for those interested in city planning, but suggestions of value will not only be found in the plans of the more important cities, but also in the plans of the

smaller cities, which are often of a very superior order.

There are three primary types of great ground plans: the rectangular block plan, so widely followed in the United States



PLAZA NAVONA, ROME

with its absolute uniformity, an example of which is seen in the central part of Manhattan Island; the circular plan with streets in concentric circles and with radial avenues, such as the city of Indianapolis, and the accidental plan, in which the streets are all at random, such as parts of Boston,

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New York and the entire city of Constantinople.

Modifications of these forms produce all the possible forms of ground plans, and these modifications, if properly carried out, produce ground plans superior to any of the fundamental types, which are in the cases of the rectangular and circular plans bald and uninteresting and in the random plan lacking in the sense of unity.

A modification which is highly effective is that in which diagonal or radial avenues are run through a rectangular block plan. This is the case in Washington and Buffalo, cities which are among the best planned in the United States.

As most American cities are built on the rectangular block plan, this method of cutting through diagonals is proposed to be followed in many improvements under consideration. It has the objection, however, of creating a great many small, triangular blocks of land of little or no utility. Other methods of modifying rectangular block plans will produce as good if not better results.

The ground plan of a city should have certain of its avenues laid out on a definite design, to give the city unity and strength; while the less important streets should be arranged with more freedom, in order to afford variety, interest and individuality.

That these principles were early recognized is evident from the plans of ancient cities, a study of which shows the great skill and taste of the builders. The Romans were better city builders than the Americans of today, and splendid examples of their art are to be found in the cities of Cologne and Mannheim, the central portions of which preserve the ground plans of the ancient Roman cities whose sites the modern cities occupy.

Of American cities, Washington is undoubtedly one of the best planned, yet it only partially exemplifies what are today recognized as the true principles of city planning. From the accompanying illustration it will be seen that its ground plan, as has been stated, consists of a gridiron, through which are run diagonal avenues. The plan is such that the city's great monumental structures are shown to good advantage; but otherwise, with the exception of the squares produced by the intersections

of the straight diagonals with the gridiron streets, it is lacking in variety and interest, and has all the monotony of long, straight streets.

Much the same objection may be made to some of the principal streets of Paris, which are not sufficiently demarked to produce a proper degree of individuality.

In 1902, a Committee of the Senate made an elaborate report on the improvement of Washington, which indicates, at least, that an improvement is considered desirable.

The great ground plan of Buffalo excels that of Washington, and is notable among the plans of cities of the United States. It was early realized that a great city would develop in the vicinity of Niagara, and proceeding on this conviction, the site of Buffalo was the result of a sagaciously made selection. It is located where it is, not as an accident of growth, but in pursuance of a carefully considered plan. Joseph Ellicott, an agent of the Holland Land Company, laid out the city in 1801-02, calling it New Amsterdam. Ellicott is known as the "Father of Buffalo" and the city owes him a debt of gratitude of far greater proportions than is generally realized, for while other cities are spending great sums in reconstructing their street plans, Buffalo enjoys the great heritage of a well conceived and well executed plan, the fruit of Ellicott's genius and foresight.

Joseph Ellicott was a younger brother of Andrew Ellicott, the first surveyor general of the United States, and the man who completed the city of Washington on the designs of the great French city planner, L'Enfant. The younger brother himself, did considerable work on the plan of Washington, and when he came to plan Buffalo, he had acquired true theories and laid out the city accordingly.

After him, the art of city planning in America seems to have died, for with the exception of Washington and Buffalo, American cities are almost wholly built at haphazard on the rectangular block plan laid down without reason or modification.

As a result, however, of a recently awakened interest, millions in money are being spent by cities throughout the country in remodelling their streets. Buffalo, with her plan, is saved such a necessity and may

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thus devote to other purposes the sums which would have been spent in reconstruction but for the work of Ellicott.

In modern times, German cities have shown the greatest development of the art of city planning and the German city building movement has produced great, practical city builders. As a result of their labors, the United Society of German Architects and Engineers, in 1874, laid down the fundamental principles of city planning as follows:

"The basic principles of enlarging a city, considered from the technical, the economical and the administrative points of view are:

(1) The scope of city planning consists principally in fixing the base lines of all traffic movements and transit facilities, viz.: streets, street car lines, railroads and canals, which must all be treated liberally and systematically.

(2) The street net should contain the main streets, with the existing streets taken duly into consideration; the auxiliary streets which are fixed by local conditions, and in addition, other subordinate streets, treated in accordance with the necessities of the immediate future, or having their development placed in the hands of interested property owners.

(3) The grouping of the parts of the city should be effected in accordance with their location and individual characteristics, subject to such modifications as may be demanded by sanitary considerations and the exigencies of commerce and industry.

(4) The duty of the building department is to determine the rights and privileges

of tenant and neighbor and house owner. Such rights and privileges are related to fire protection, freedom from interference, health and safety of buildings, and all æsthetic considerations must be secondary thereto.

(5) It is desirable that expropriation and impropriation be facilitated by legal measures, and of still more importance is the creation of a law providing for the regulation of the contour of new or reconstructed blocks to be built upon.

(6) The city should reimburse itself from property holders directly benefited by improvements, for funds advanced by the city for such purposes, and it is advisable to have the amount stipulated before the work is begun and a normal cost per front foot fixed.

(7) The activities of interested property owners' associations, in regard to the improvement of certain sections, should be subject to municipal supervision.

(8) Land upon which it is imperative to make improvements, should only be built upon under reservation for its subsequent use by the city.

The property owner whose land has been marked out for street improvements, should be entitled to demand expropriation with compensation, in the event of delay in making the improvements.

The installation of sewer connections to new buildings must be at the expense of the property holder, but the city should be obligated to install a complete system, upon the guarantees of a sufficient number of property owners of abutting property."



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UNSATISFACTORY CONDITIONS THAT AFFECT THE ARCHITECTURE OF FEDERAL BUILDINGS

THE fact that to urge economy on legislative bodies endowed with unrestricted control of public funds, amounts usually to a sheer waste of effort, has striking exemplification in the swollen appropriation bills now before Congress, and particularly bills that carry appropriations for new public buildings. The majority of representatives whose districts are affected by measures including new buildings will, not unnaturally perhaps, favor the general measure. A most gratifying exception to such course may be noted in the action of Congressman Fitzgerald of Brooklyn, who during the recent sessions of Congress appeared to possess an intelligent mental grasp of the subject and to apply to the measures brought before him as a legislator an analytical test that might with profit be adopted by many of his confreres. Spurning an offer of an appropriation of a considerable sum for a building in his district, which to quote an editorial in *The Nation*, "was made as an inducement to acquiesce or at least keep silence," Mr. Fitzgerald has placed himself squarely on a platform that will meet the approbation of every intelligent observer of present conditions of our Government architecture. But in spite of Mr. Fitzgerald's

stand, we have before us the usual menace of the public welfare as a result of the selfish promotion of private interests or political expediency.

Comment on the congested state of the office of the Supervising Architect of the Treasury Department has already been made, and we have quoted the utterances of the man who probably in a larger degree than any other person is responsible for these conditions, to the effect that it was only by means of a much augmented working force that work at present in the Supervising Architect's office could receive proper attention. In all the circumstances, it is difficult to comprehend how it will be possible to properly design and erect public buildings contemplated in the new appropriations bill with the means available under the present restrictive effects of ill-advised and blundering legislation.

Probably the greatest danger contained in the situation is that of a reversal to practices prevalent before the passage of the Tarsney Act. As everyone interested has reason to know, the selection of an architect for Government work at that time was generally controlled more by political prestige than by professional ability. The results of this so-called "spoils system" is apparent all over the country in the non-descript public buildings that still exist as a constant warning, but one that men in Congress do not appear to heed.

It is to be hoped that early in the session of the next Congress some measure will be enacted that will result in something at least approaching the smooth working conditions and the economical and satisfactory design and erection of public buildings that existed before our "statesmen" took matters in hand.

INJUDICIOUS CRITICISM

REPRESENTATIVE COOPER, of Wisconsin, is reported to have characterized the Post Office Department Building at Washington as a "cross between a cathedral and a cotton factory," and the Pension Building as "a lovely red shed that disfigures judiciary square."

Although architecturally the buildings referred to do perhaps leave something to be desired, they are of course not really so

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bad as Representative Cooper paints them. The incident, however, serves to again call attention to the fact that there seems to be an unfortunate tendency among men in high public office to commit the indiscretion of stating in their speeches in Congress their opinions as to the artistic merits of various architectural designs, although their woeful lack of ability to do so intelligently has been many times demonstrated. It would seem that if the shortcomings of what is sometimes called "Government architec-

ture" was really so apparent to our representatives in Washington, and so greatly deplored by them, they might with greater effect lend their support to efforts being made to improve it through competent channels, rather than to attempt to earn a little thoughtless applause by denouncing it before men usually no better qualified to judge of the matter than themselves. The passage of a substitute measure for the repealed Tarsney Act would gain sincere commendation from those who know.

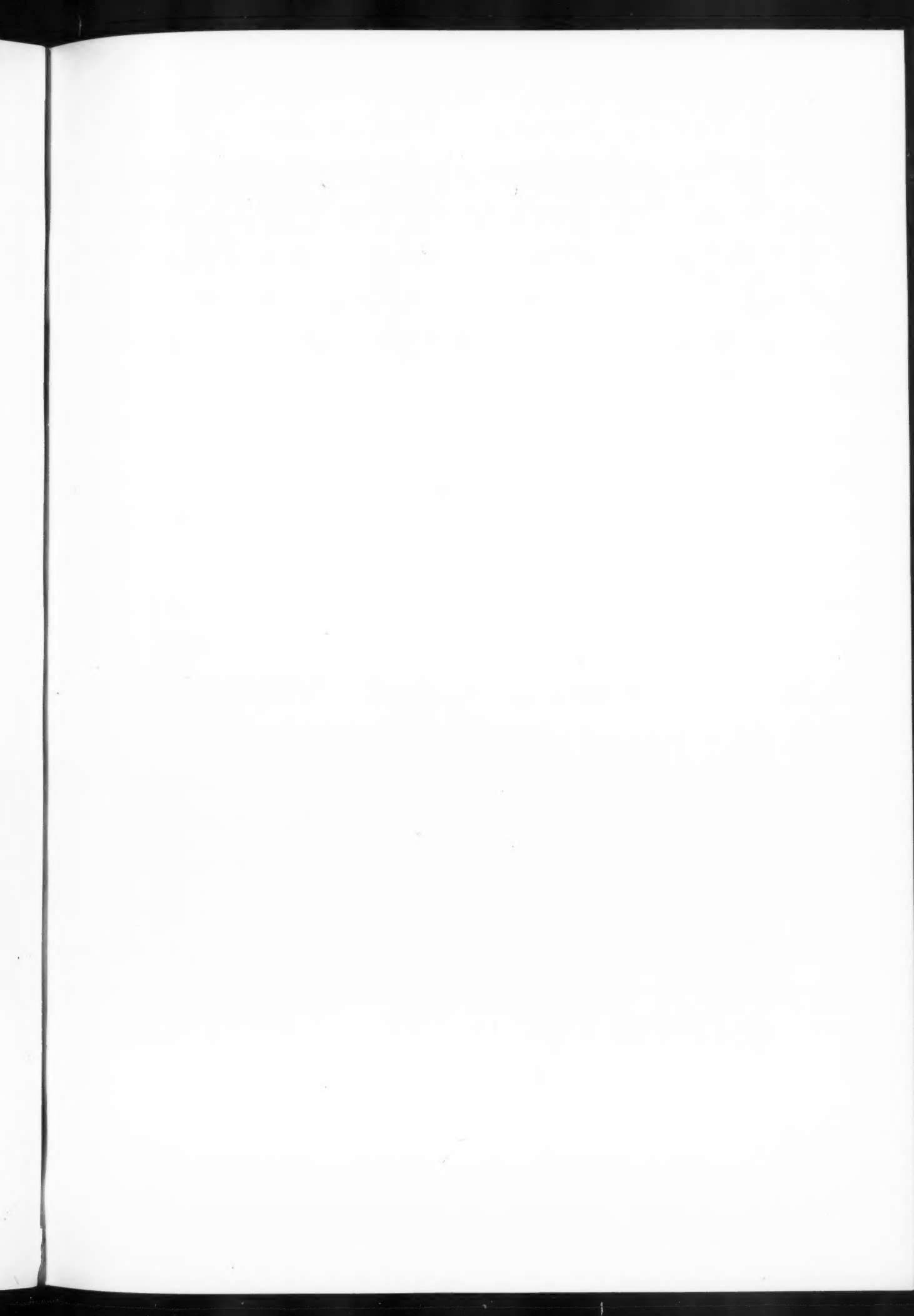
WHITINSVILLE LIBRARY

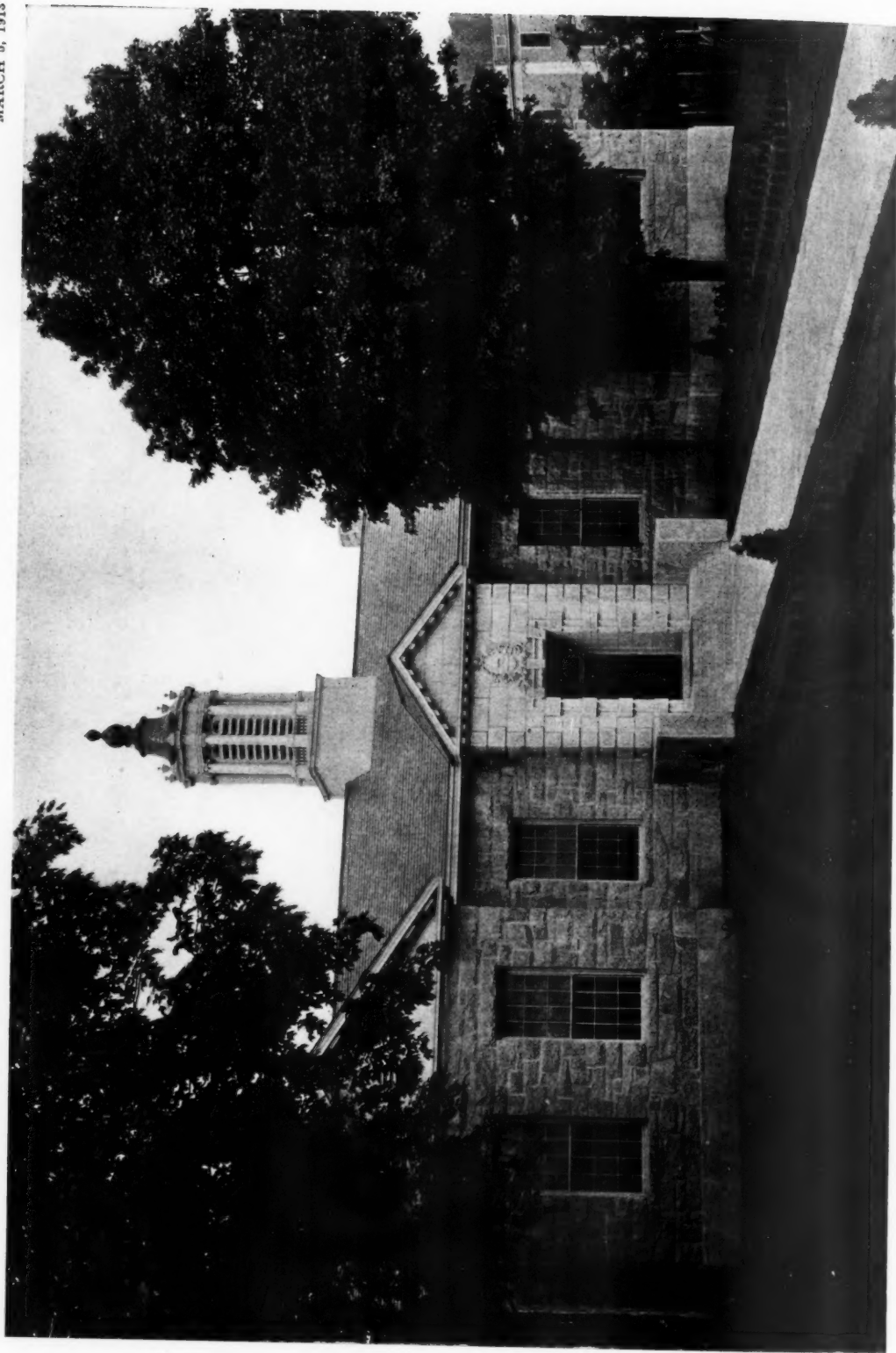
MR. A. CLIPSTON STURGIS, *Architect*

THIS is a small library in a small town, to be taken care of most of the time by a single attendant. The reading rooms and delivery room have therefore been designed for inspection from a single point. By making the whole front of the building a single room it was possible to get a room which has the dignity of considerable size, and by the use of the open decorative screens the two ends of the room are given a sense of seclusion from the central delivery space, and yet are entirely

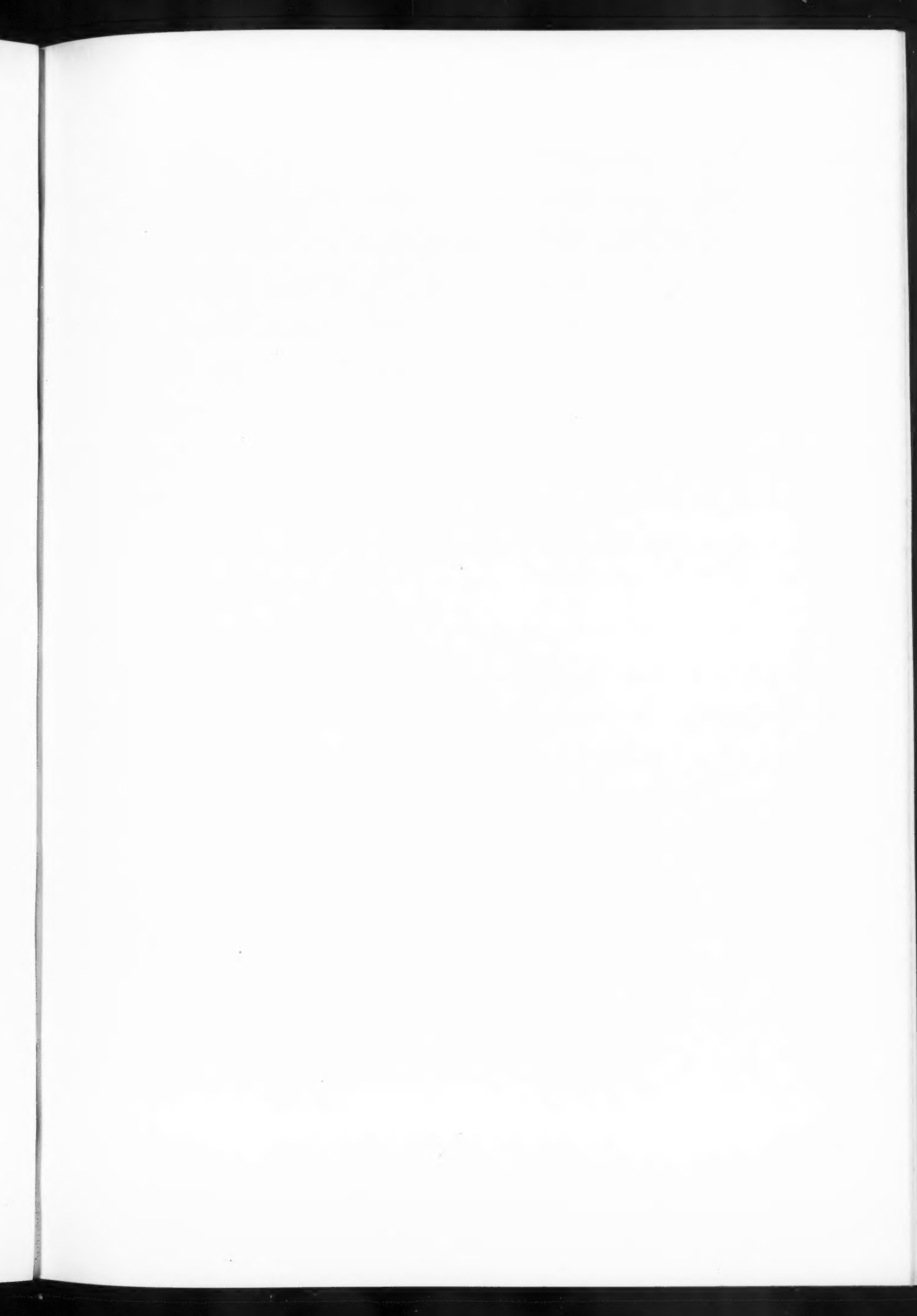
open for inspection by the attendant at the delivery desk itself. There is no second floor except over the two small portions at the rear of the front room and to the right and left of the stack, in which the stories are low and there is a second story of study rooms. There is a second story level of stack in the basement, the upper level being that on the level of the first floor. The outside of the building is of local granite, the finish of the reading room is entirely of California redwood. The stack is cast iron, and the uprights of the stack are utilized as supports for the concrete slab which forms the roof.

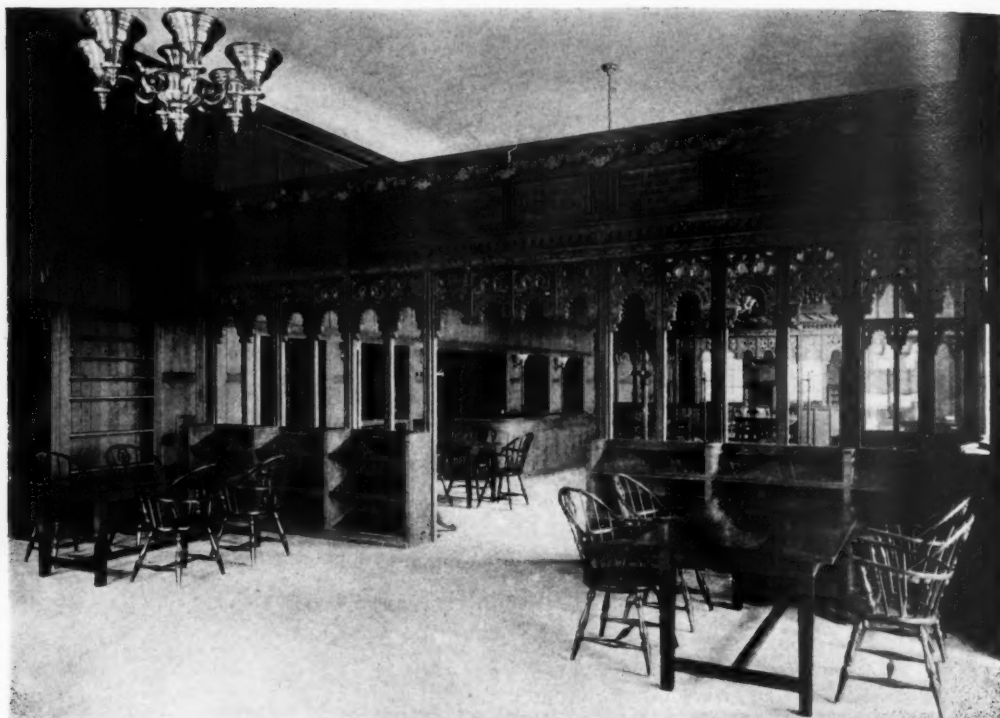




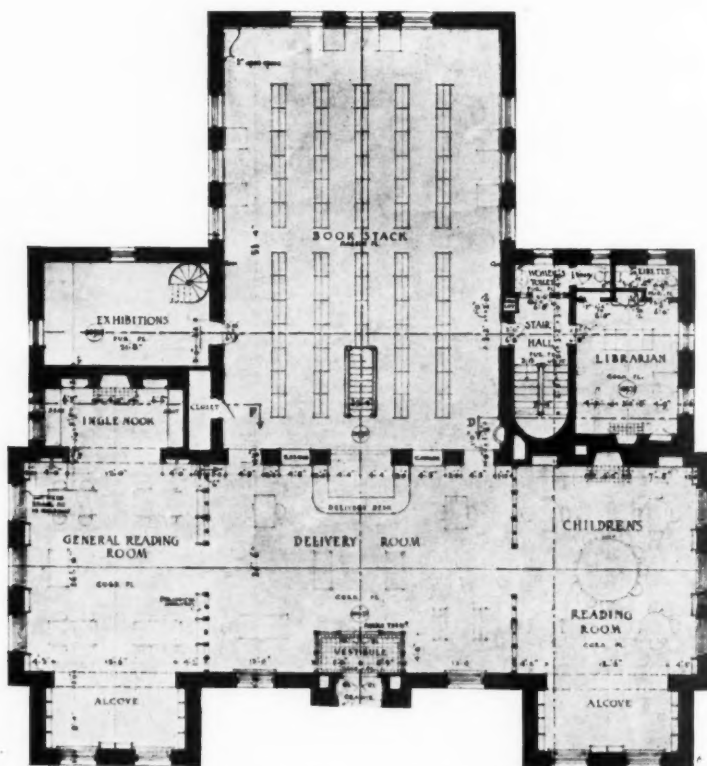


LIBRARY AT WHITINSVILLE, MASS.
MR. R. CLIPSTON STURGES, ARCHITECT



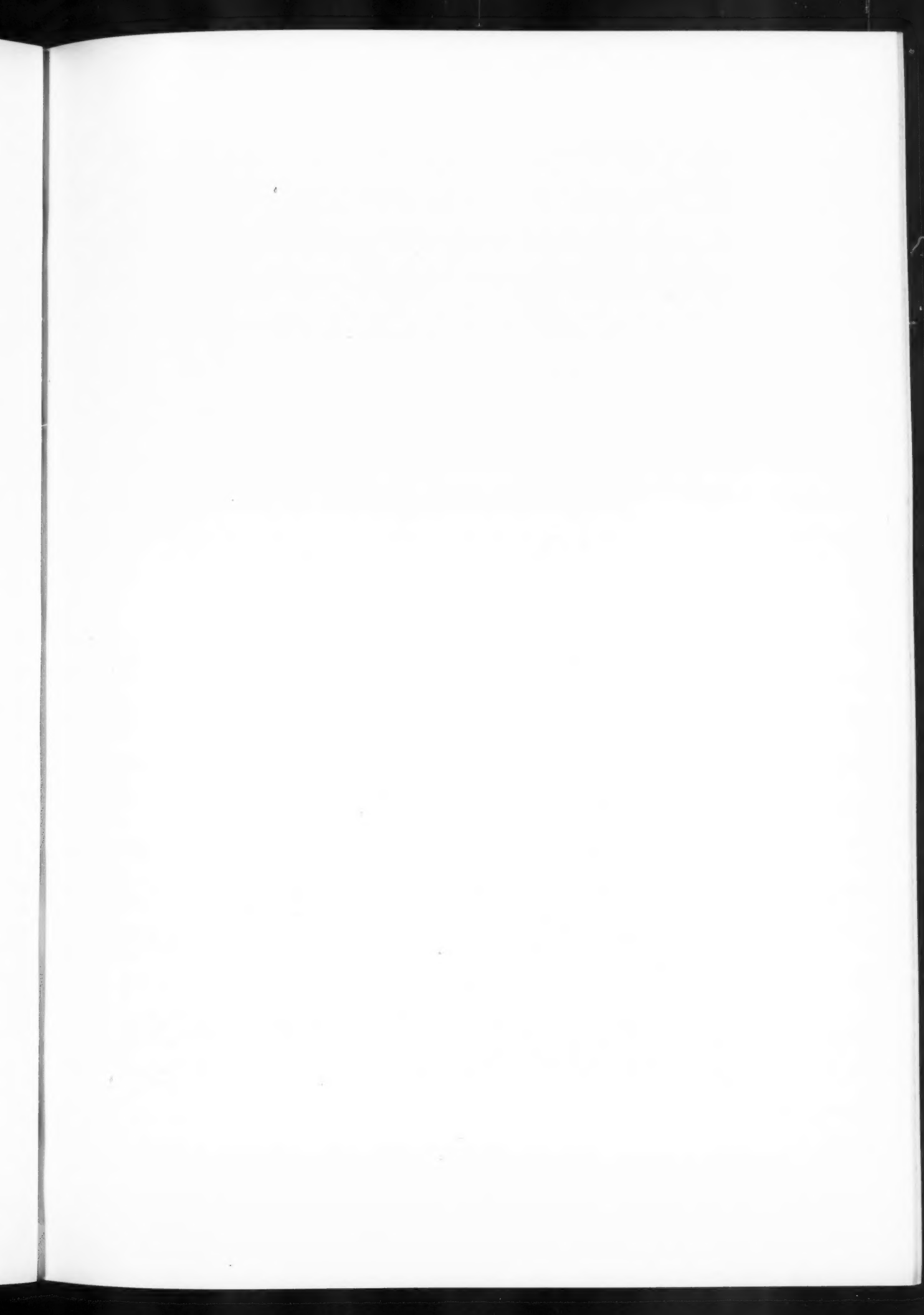


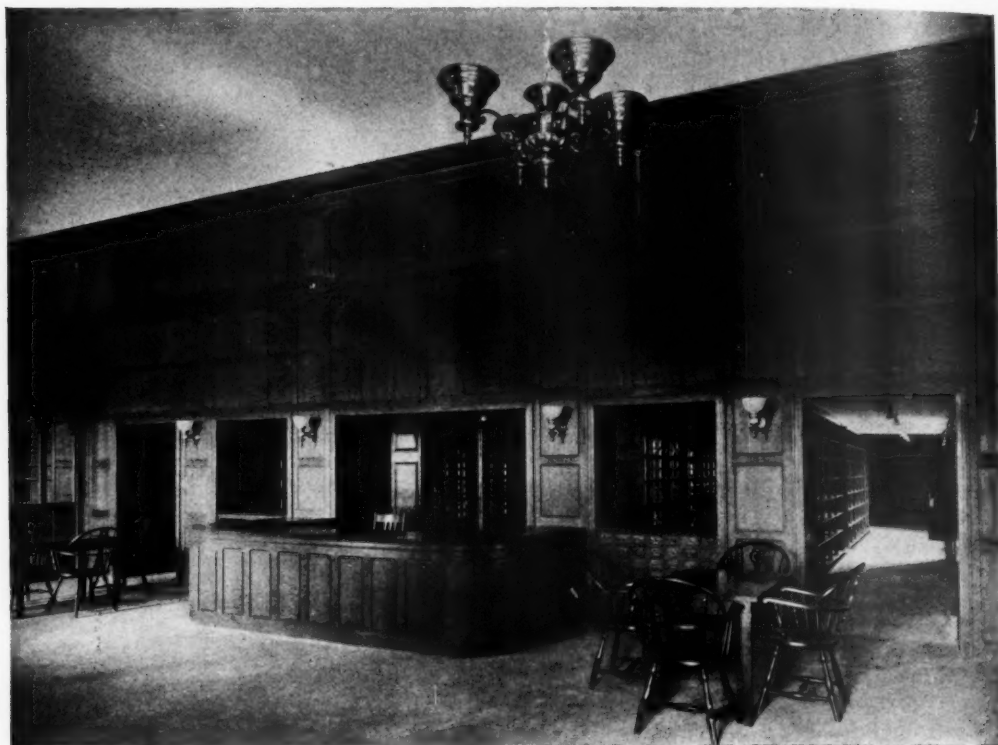
GENERAL READING ROOM LOOKING TOWARDS DELIVERY ROOM, WITH CHILDREN'S READING ROOM BEYOND



LIBRARY AT WHITINSVILLE, MASS.

MR. R. CLIPSTON STURGIS, ARCHITECT





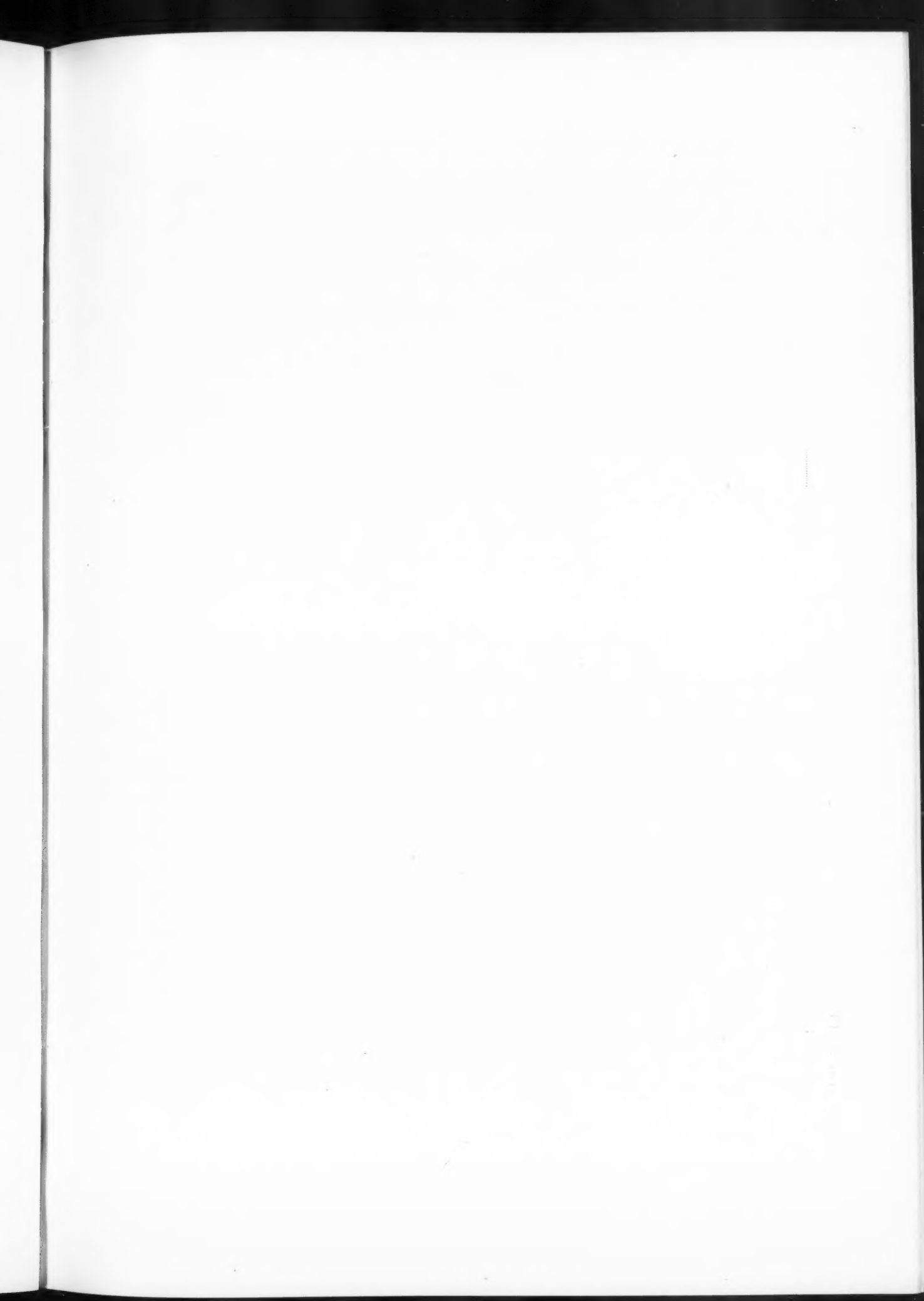
DELIVERY DESK AND STACK

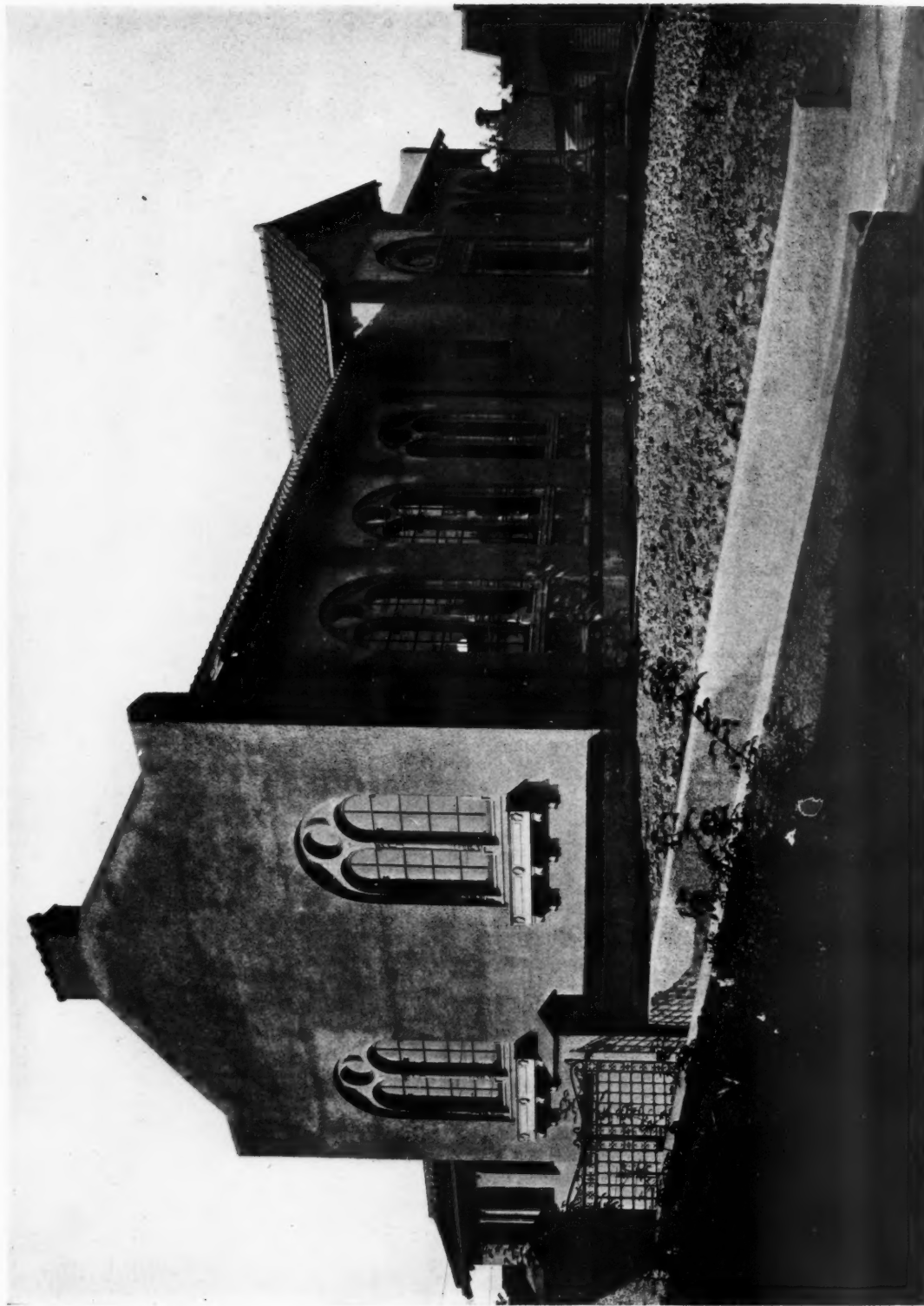


LOOKING FROM DELIVERY ROOM INTO CHILDREN'S READING ROOM

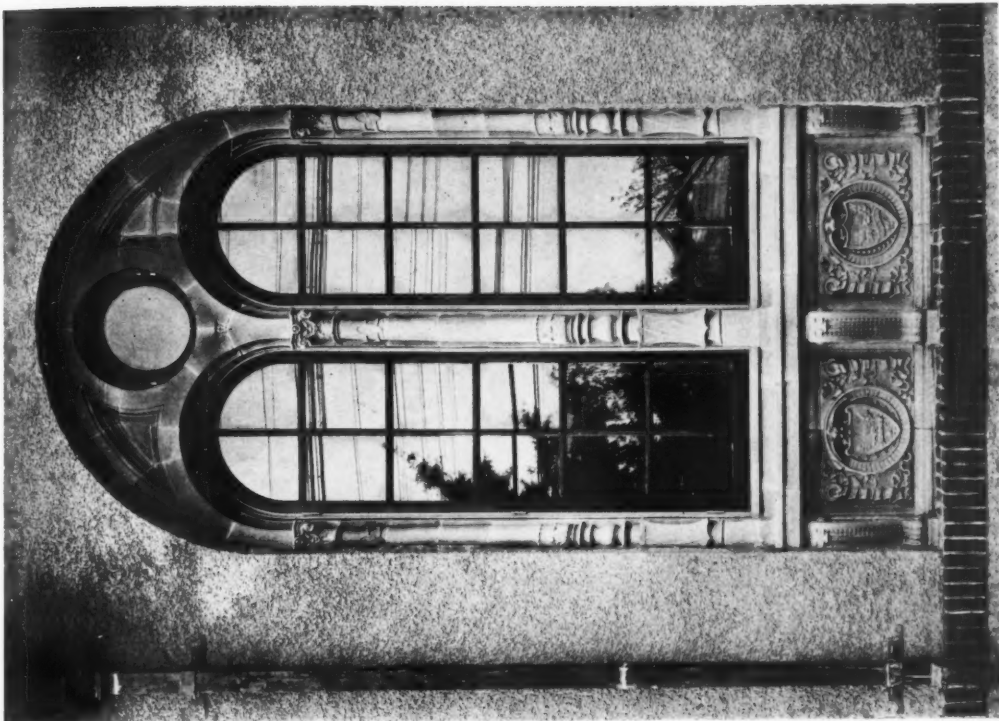
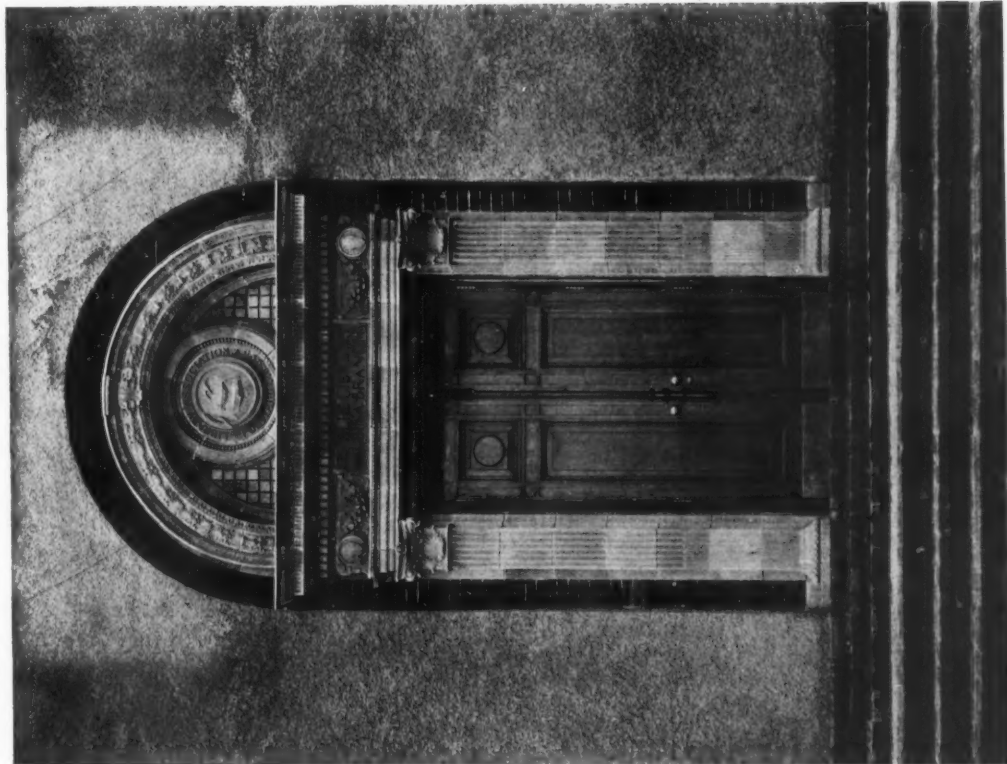
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MR. R. CLIPSTON STURGIS, ARCHITECT





ALBINA BRANCH, PORTLAND PUBLIC LIBRARY, PORTLAND, ORE.
MR. ELLIS F. LAWRENCE, ARCHITECT

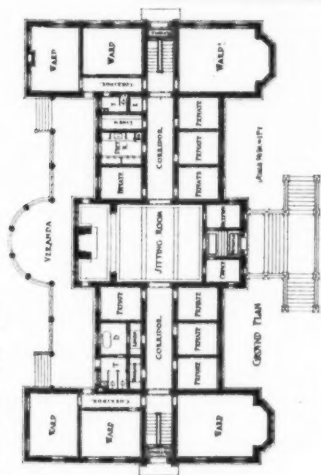


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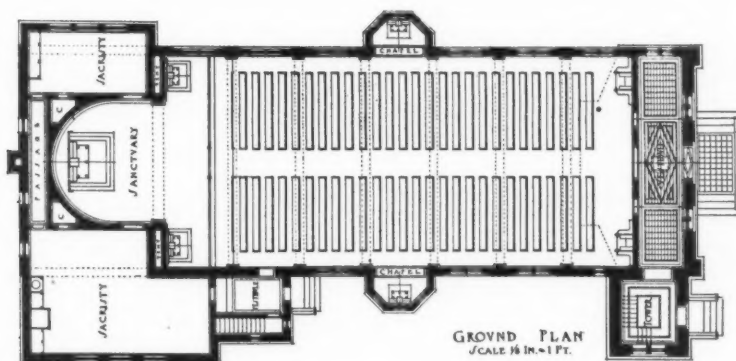
MR. ELLIS F. LAWRENCE, ARCHITECT

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BEAVEN-KELLY HOME FOR AGED MEN, HOLYOKE, MASS.
MR. JOHN WILLIAM DONOHUE, ARCHITECT



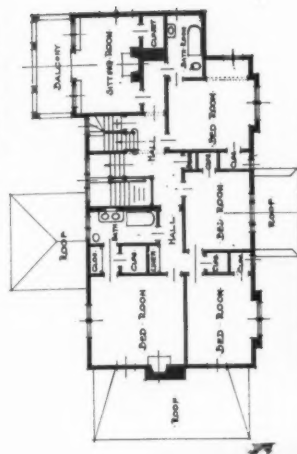
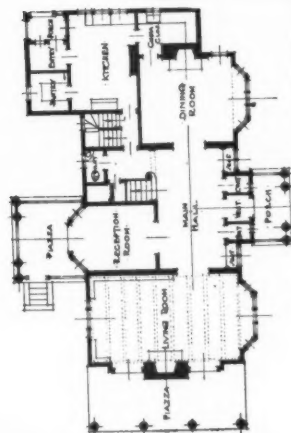
CHURCH OF OUR LADY OF MT. CARMEL, SPRINGFIELD, MASS.

MR. JNO. WM. DONOHUE, ARCHITECT

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HOUSE OF MR. P. M. TUCKER
BROOKLINE, MASS.
MR. BENJAMIN PROCTOR, JR., ARCHITECT

MARCH 5, 1913



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THE WHITE TOWER AT ROTHENBURG ON THE TAUBER.
The most picturesque of all the old German Towns