

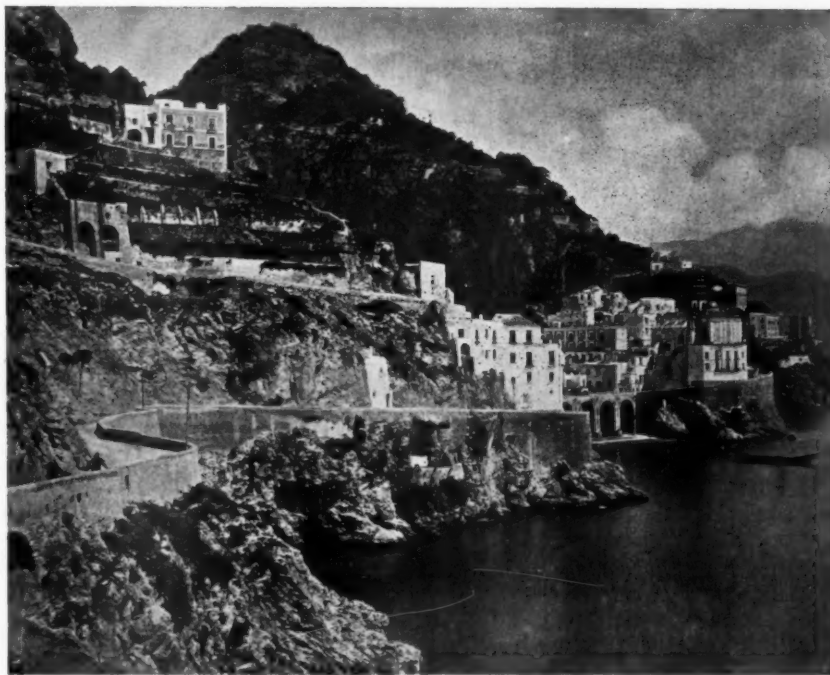
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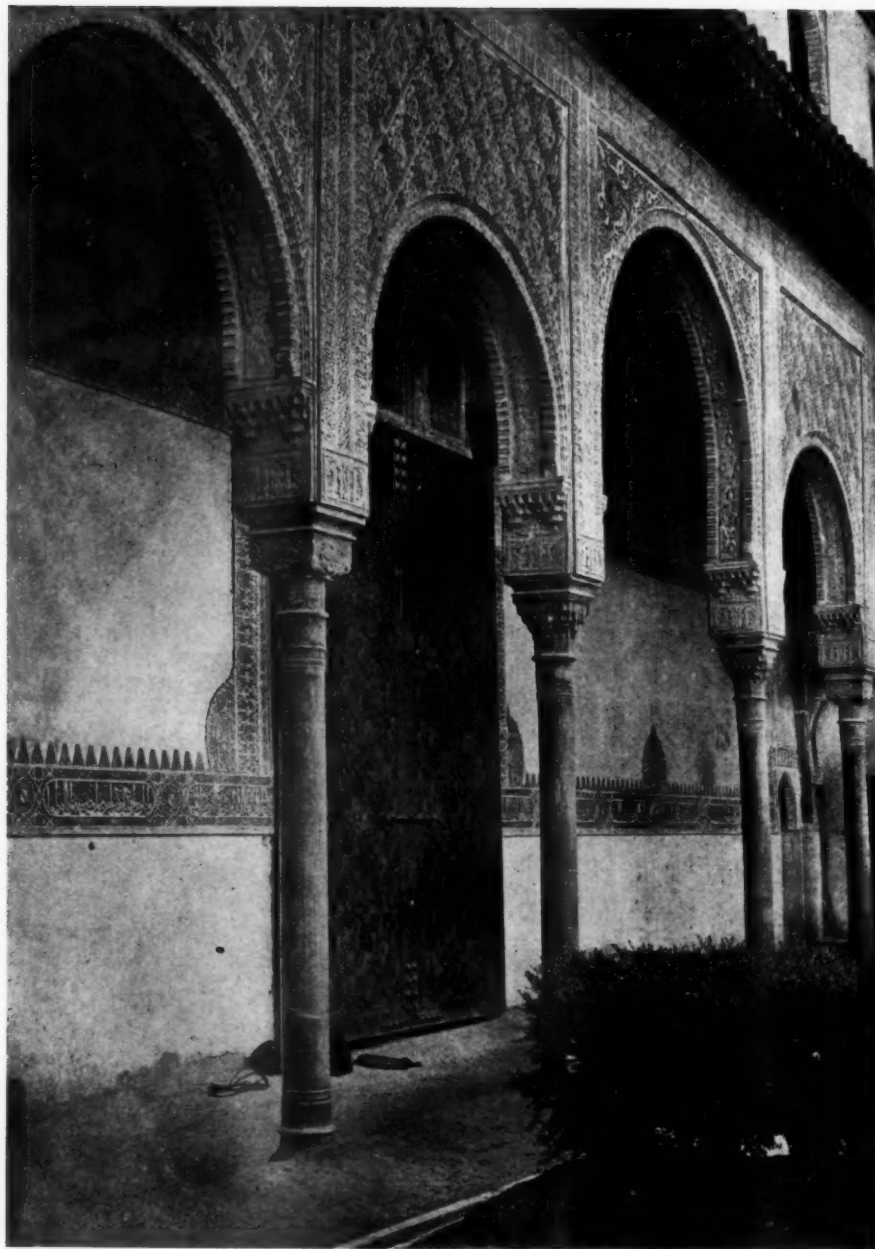
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The Peoples Savings & Loan Association Building of Sidney, Ohio

Louis H. Sullivan, *Architect*

By THOMAS E. TALLMADGE, *A. I. A.*

I BELIEVE it was the late Montgomery Schuyler who said that a new building from the hand of Louis Sullivan was an event in the architectural world. Not only by us in the West, to whom, in our youth, the golden arch of the Transportation Building was a bow of promise, and to whom the Auditorium and the Getty tomb are still sources of unending inspiration, but even by the Brahmins in the East, where Classicism sits enthroned, the work of Mr. Sullivan is appreciated and admired, even if not emulated. In fact, the architect trained in the *École des Beaux Arts*, if he has seized the substance and not the accidents of that remarkable teaching, should be the one best qualified to judge and appreciate creative and untrammelled design. It is only to the dilettante decorator-architect, whose noblest adjective is "amusing," and who vies with the milliner and modiste in giving his fashionable client *le dernier cri* from Paris or London, that

the work of Mr. Sullivan is a stumbling block and foolish.

One feels, on looking at this bank in Sidney, Ohio, that the architect had approached his problem with a clear mind and clean slate. Here was his problem—a small bank in an American city. It must be conveniently arranged, and must utilize every invention and device which makes for efficiency and comfort. Here are the materials—concrete, brick, terra cotta and steel, with glass mosaic, marble, plaster and wood; surely an every-day problem for the architect, and the materials are the ordinary run at the disposal of every specification writer.

It is Mr. Sullivan's enthusiasm and prophetic ability which exalt so humble a problem to the heights of great design, and it is his sympathy for and deep understanding of commonplace materials that transform brick and terra cotta into purple and fine linen.

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I remember that when draftsmen in a large office, in designing a bank building, we usually took figures on stone, terra cotta and granite, the design remaining constant for all three. In the Sidney bank the materials were selected *before* the exterior was designed, and thereby became unalterable features in the program. Terra cotta was chosen for belt courses, cornice and window trim, because the plastic clay of which it is made lends itself to delicate modeling and pressing into molds; besides, in terra cotta a great range of color and surface texture is attainable. For the general exterior wall surface, Indiana shale wire-cut brick was chosen. This brick comes from the kiln in many shades, and is so laid up in the building with horizontal joints well raked. Two other materials, the latter of them most unusual in Mr. Sullivan's work, were selected glass mosaic and verde antique marble; with this palette Mr. Sullivan designed his exterior. The dispositions of the mass—the fenestration, expressing the functions of the building, and the location of its internal units; the materials treated with enthusiastic and sympathetic understanding; the range and harmony of the color—give the little building a

gemlike quality that glows afterward on the "inward eye" like a pigeon-blood ruby.

It is not necessary to analyze the exterior at great length; the photographs explain it very well. Certain obvious beauties and peculiarities, which would appear to some as solecisms, are evident.

The first to claim attention and admiration is the cornice; nothing lovelier in terra cotta, it seems to me, has been done. The continuity and the separateness of the hexagonal units, and the feeling of the mold, are a triumph for the fabricator, Mr. Gates of the American Terra Cotta Co., as well as for the designer. The lack of drip in the cornice, as the water flows back on the roof (why shouldn't it?), and the recessed brick pattern below, are fascinating details.

Next I like best the entrance door. The architrave and doorjambs are worthy of the closest study. This ornament is living ornament; it is as much a part of the substance as the shell of a tortoise or the hide of an alligator. How banal beside it would appear the applied arabesque of a Renaissance panel! Above is a magnificent tympanum in glass mosaic, the work of Louis J. Millet; it has



INTERIOR LOOKING TOWARD ENTRANCE

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the single word "Thrift" inlaid in its surface. It is held in place by a beautiful arch in terra cotta, which has a considerable projection and an enriched soffit.

The third outstanding feature of the exterior is the extraordinary range of windows that give onto the banking room, remarkable and unprecedented, full of vigorous modeling, and rich in color, with the great panel of glass mosaic over. It is undoubtedly the most brilliant feature in the façade. Still I quarrel with the decided salience of the reeded mullions, and especially with the unanchored es-cutcheon over the center of the mosaic panel. Original and vigorous are the corbels under the mullions, and soft and luminous is the modeling in each soffit and jamb. The huge, beautifully modeled terra cotta brooches that pin the lacelike window trim to the brick fabric come directly over the void of the unornamented small windows. The same thing occurs, only more so, in the front façade, where the ends of the archivolt find, according to old standards, an insecure resting place over similar voids.

When I asked Mr. Sullivan to justify himself he said: "Every schoolboy knows there is steel over those windows," and then they looked all right!



TERRA COTTA DETAIL

If the design be vigorous and daring there is certainly no evidence of timidity in the color. The base is verde antique marble, the belt course, arch string and portal mottled green terra cotta. This green changes to brown in the window trim, which becomes lighter above until it emerges into golden hues in the frame of the great window, and dies into pale orange in the cornice. The two glass mosaic panels are in variegated turquoise blue shades. The translucent glass windows are shielded on the outside by plate glass, which not only softens the light within but combines with the pattern of the leading, the fleeting reflections of trees and sky. The arrangement of the interior is simplicity itself, and

amply explained by the plan reproduced. Its architectural treatment is as interesting as the exterior; a high wainscoting, half the height of the banking room, forms the background for a lower screen, also of brick, the openings of which are filled with glass instead of the usual confusing metal grilles. This screen is, of course, the partition dividing the cages, working space, etc., from the public space. The most beautiful feature of this unusual arrangement is a remarkable cornice, or rather fascia, or perhaps it is a lintel without salience, of quarter-



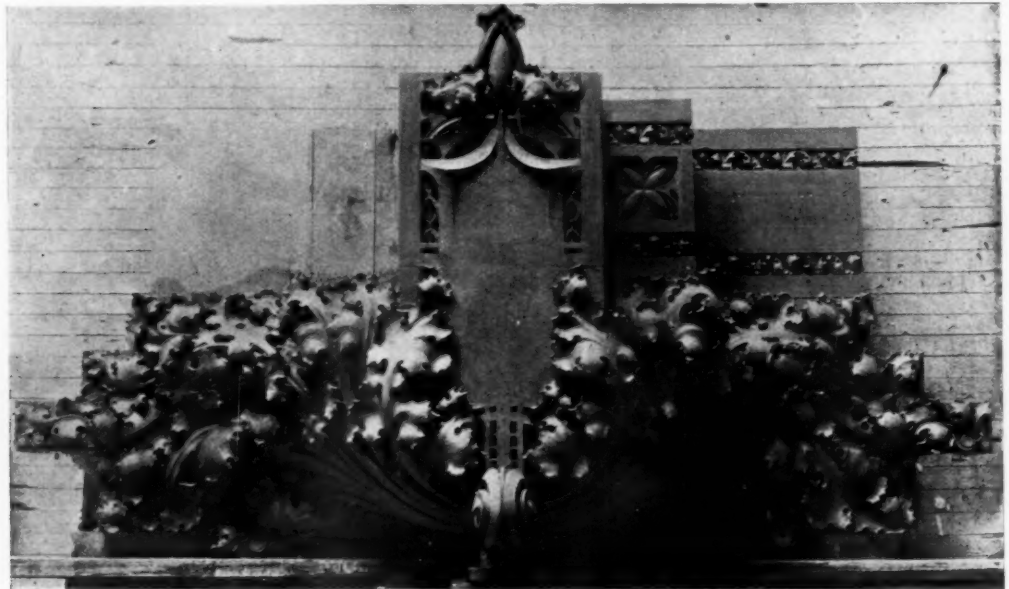
DETAIL OF PARAPET

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sawed oak of a steel-gray tone. It is beautifully carved, and besides its aesthetic purposes it performs important functions in connection with the lighting and ventilation. The harmonious ensemble does not prevent us from admiring certain especially interesting or beautiful features: the marble drinking fountain, the four great pylons with their ventilating grilles, and light reflectors above; the verde antique marble check stands; the great vault door, which, when open, falls exactly on axis with the public space, and forms its own picture—an apotheosis of

equipment, and I appreciated again that in his mind architecture was only the handmaiden of requirement, whose duty only was so beautifully to order the form that the function could be appreciated.

Mr. Studevant, secretary of the bank, and a sympathetic co-worker with the architect, says that a bank should be a financial service station, democratic in its accessibility to its officers and social in its supply of beauty and comfort to its patrons; as a service station its equipment should be scientific and complete. "Show me your ventilating system, and



TERRA COTTA DETAIL

polished steel and brass. The extraordinary harmony of Mr. Sullivan's architecture, with so final an expression of mechanical skill and untrammelled modernity as this vault door, is deeply significant. It tells that machinery and art greet each other with open arms when there is mutual understanding.

The upper part of the room is unfinished. When peaceful times return these bare walls will be decorated with mural paintings, for which there will be plenty of subjects and inspiration.

There are other rooms besides the banking room well worthy of study. The ladies' writing room, of which a view is published, is especially good, yet it has no outstanding architectural feature or even ornament, only the plain Roman brick walls, the simple brick cornice and the marble floor.

In talking with Mr. Sullivan about the bank I noticed that while I talked architecture he talked

I will tell you how much your architect knows." Hence expect to find nothing that is not modern and scientific. For instance, the usual method of natural ventilation and steam heat is discarded. The Sidney bank has no windows; that is, none that open; it is hermetically sealed except the entrance doors. To insure insulation, the windows and skylights are doubled, with an air space between. This is also true of the walls, which on the inside are lined with hollow gypsum blocks, separated by several inches and a wall of air from the exterior supporting wall. Having secured an air-tight building, it was possible to operate successfully a heating and ventilating system. That employed is known as the "vapor modulation system," and operates on a pressure of four ounces. The heat is distributed through direct radiators equipped with modulation valves. The ventilation operates in conjunction with

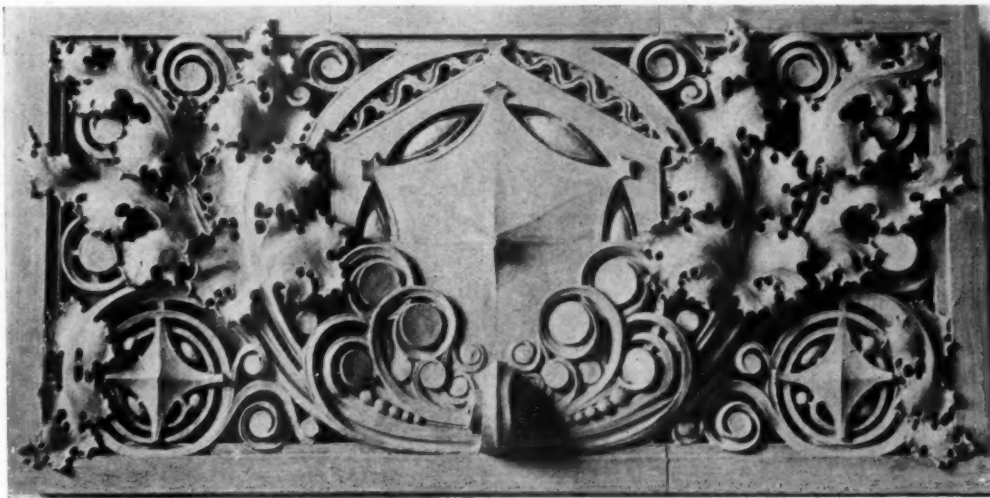
THE AMERICAN ARCHITECT

the heating system as follows: The outer air is admitted through a fresh-air shaft connected to a set of pre-heating coils. The air, partly warmed, passes through an air washer, which completely removes all dust, soot and odors. This washed air then passes through a second system of coils which raise it to the desired temperature. A large forcing fan then distributes the washed and warmed fresh air through a system of ducts to definite points in the banking room and all its adjuncts. An exhaust fan expels through ducts the vitiated air from toilet and minor rooms. A system of thermostats automatically controls all pre-heating and re-heating coils, thus maintaining a constant fixed temperature. In addition, 50 per cent of the air in the

obvious: economy of coal; noiseless and dustless quarters; regulated humidity; an abundant supply of clean, fresh air, and in summer a temperature of twelve to fifteen degrees below that of the outer air. Such an arrangement evidently makes for the comfort of patrons and the comfort and clear-brained efficiency of the working force. The arrangement is as enlightened as it is hygienic.

Daylight is provided in abundance through windows and skylights, which in the larger openings are modified and diffused through opalescent glass.

Artificial lighting by electric current is divided into two units, direct and indirect. Direct lighting is installed for all minor rooms and passages by means of wall and ceiling fixtures. All desks and



ANNEX DETAIL

main banking room (but not in the accessory rooms) is "recirculated"; that is, it leaves the room through a system of registers in the walls and partitions and enters a system of branch metal ducts which are gathered into a trunk line. This trunk line enters the fresh-air chamber, and the combined air, thus washed and reheated, is again distributed by fan pressure to the various rooms. A system of gravity exhaust ducts supplements the exhaust fan, and the fresh air and recirculating ducts are controlled by dampers. The fans and pumps are run by direct-connected electric motors. The two boilers are of the Newport magazine-feed type. In warm weather the air washer and fans alone are operated.

This system of construction and equipment may be called ideal. The advantages of the system are

counters are lighted by means of overhead Frink reflectors. The indirect lighting is so disposed that its source is completely hidden from view. The object of the indirect system is, first, to "flood-light" the banking room with a diffused glow in which there are no shadows or high lights—this for eye comfort; the second object is to illuminate evenly and naturally the mural decorations. The lights themselves are located in troughs let into the continuous oak lintel over the cages, and are clustered in powerful batteries in the vases on the pylons.

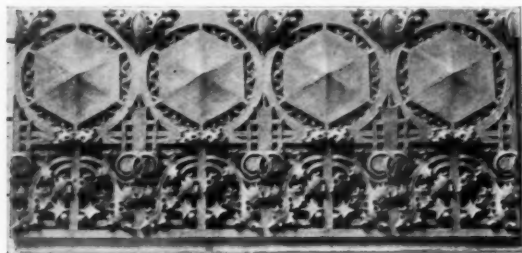
Besides the usual outside trunk lines a complete telephone system is installed for the use of the working force and of customers.

The plumbing and drainage system meet the most exacting sanitary requirements, and a tank in the

basement supplies rain water to all lavatories.

The construction of the building is substantial throughout. The walls are brick, with steel columns where required. The main floor throughout is reinforced concrete. The main walls and partitions are plastered on "pyrobar" hollow gypsum blocks. The floors of the tellers' quarters and stenographers' rooms are of cork tile; all other floors are of gray pink Tennessee marble, laid with a hair joint and given a honed finish. All floors throughout finish against a sanitary coved marble base, and the wood finish is of quarter-sawn white oak, stained steel gray. All exposed metal work, including hardware and lighting fixtures, is of genuine bronze, and the letters on the façade, spelling the name of the institution, are of bronze, gold-plated.

The door leading to the safety-deposit vault and coupon rooms is operated electrically by the chief stenographer. In front of the vault is an ample space, separated from the public space by a great



ANNEX DETAIL

sheet of plate glass. The vault is commodious, and is divided into safety-deposit and cash compartments. It is fire and burglar proof, constructed of reinforced concrete, and lined with steel. Its immense circular door, beautiful and powerful, is controlled by three time locks. Behind the main banking room is a low-storied structure, continuous in place with the main building. This annex houses coupon rooms, the general toilet, customers' room, directors' room, locker rooms, etc.

Such is briefly the Peoples Savings & Loan Association Building of Sidney, Ohio. It is a culmination—the latest, certainly, we hope not the last—of a series of brilliant buildings similar in purpose, and to a certain extent alike in *parti*—Owatona, Cedar Rapids, Grinnell, Newark, Sidney.

These gems, which Mr. Sullivan seems to be collecting and stringing on a necklace of latter-day achievement, are headed by the epoch-making Owatona bank. If he has not surpassed Owatona, it is only for the reason that it cannot be surpassed.

The Sidney Bank, of "purest ray serene," is worthy to take its place in this scintillating galaxy of Mr. Sullivan's brilliantly conceived work.

Our Gold Reserve and Our Merchant Ships

The Hon. William C. Redfield, Secretary of the Department of Commerce, in the course of a recent address, stated:

"One vital factor of the readjustment period brought by peace will be our foreign trade. It was valuable before the war; it will be essential after it. This country has the greatest unexhausted supply of credit in the world. The mechanism which makes this credit effective is our gold reserve. Perhaps it would be more accurate to say that our banking system is the mechanism and the gold reserve is the foundation upon which the whole credit system rests. The whole credit-making power of the country depends upon the gold reserve. If this is seriously depleted, our ability to give credit is by so much reduced.

"This is a severely practical matter, because the smallest bank in the smallest village will find itself unable to lend to the butcher, the baker, or the candlestick maker his modest requirements if our gold reserve is very seriously depleted.

"How, then, may we protect this reserve against too great reduction?

"There are four ways by which, according to my mind, this reserve can be maintained. These are by sales abroad, by loans abroad, by investments abroad, and by services abroad.

"We may render *services* abroad by our ships, by insurance of various kinds, and in similar ways. We should make *investments* abroad in order that the normal business arising from the use of those investments may flow to us and that the earnings upon the investments may be returned to us also. We must make *loans* abroad in order that others may prosper, that we may through their prosperity gain better customers, and that we may receive the interest upon our loans. And we must make *sales* abroad that our materials and labor may find a market, that our workmen may be employed, our capital receive its due income, that our necessary taxes may be paid, and that we may ourselves receive in return the supplies that we need from other lands.

"Clearly our domestic trade will depend in a large measure upon our foreign trade. We must be substantially sufficient to ourselves in the coming days as regards the supply of credit. It is evident that commercial operations even in wartime should be conducted with due thought of the future and solicitous memory of the truth that we may not so far injure by war restrictions the commerce of the country that it shall be unable to take up promptly the work of peace when the war closes and at once start forward on the work of reconstruction."

Slaves of the Drawing-Board*

SLAVERY has existed for centuries in different parts of the world, but in most cases has been the result of the subjugation of man by man through the agency of conquest or other tragic vicissitudes. It has been the architect's lot, after attaining professional rank, gradually to become the slave of the instrument he uses to express his conceptions. The lot of a slave may be endurable, and even happy; it may, on the other hand, be the most tragic of all conditions produced by human agency. Let us consider the architect's training. He is gradually initiated into the use of T-square, set-square, and drawing-board, and learns to understand the mystery of plan, elevation and section, and feels that a new world of delineation is discovered. He little knows that in many cases he has placed himself between the upper and nether millstone, and will spend his days in producing endless plans, elevations and sections until the time of his death. The students' competitions he enters mean the continual effort to produce scale drawings; the plotting and measuring of old buildings ends in the production of more drawings, broken less often now than in the past by infrequent periods of sketching. If after he commences practice on his own account he takes part in public competitions he has to make carefully finished scale drawings *ad nauseam*; and in each set of drawings to attain to a greater degree of finish. He endeavors to win the approbation of clients by carefully finished scale drawings, and it would probably be a surprise even to himself if he worked out the number of hours which he works for his virtual master—the drawing-board and its accessory instruments.

If he is energetic he finds he has little time for seeing his fellows, no time for taking part in the life around him, for he is completely enslaved, and will be so until he dies, whether he occupies an obscure position or whether the wheel of chance bears him to a high position in the Temple of Fame in the course of one of its revolutions.

We do not intend to argue that the architect should not learn to draw and to draw well, for it is obviously necessary that he should acquire the art of expressing himself on paper; but we contend that what is in reality but a means to an end becomes in too many cases the end in itself, and that this is largely responsible for the fact that architects as a rule are not so well understood by their fellows as their brothers in other professions—to their great loss. To a great extent this has been the result of the modern development of competi-

tions in England. Before the war there were comparatively few public buildings of any size which were given directly to an architect, and most of them formed the subject of competitions on which an immense amount of labor was expended by the architectural profession. There have been countless instances of competitions for buildings costing a few thousands only, for which a hundred or more designs were obtained each of them illustrated sufficiently to serve as working drawings, and on which labor was expended which would never have been necessary in the case of a direct commission. Assessors have rather encouraged than discouraged the practice, and it has been the custom to ask the poor architect to show on drainage lines, to project shadows, and to give details most, if not all, of which are completely unnecessary if the assessor only knew his business. Most of the greatest buildings of the world ever since the days of the Renaissance have been built from drawings which are mere crude diagrams when compared with those produced for purposes of a modern competition, but it is to the old buildings rather than to those of to-day to which we turn for guidance in our work.

And unfortunately when we have produced the finest possible architectural drawing we have done what the public is hardly able to appreciate.

It is unfortunate that we no longer have in our midst the traditional knowledge and craftsmanship which in the time of Wren enabled the architect to dispense with elaborate drawings, but we need not make matters worse than they are by piling up our self-imposed labors. The student should learn to draw and to draw well, and much of the work produced by comparatively young students in our schools, and notably that of the Architectural Association, shows how soon this essential facility can be acquired. Having obtained it the young architect should more and more learn to work with his head, and resolutely use drawing as a means to an end, and not magnify it into an end in itself. Competitions are most valuable exercises, especially in the art of planning—the keynote of architectural design—but they can seldom be relied on to form the backbone of a good architectural practice. More than this, if we are to have them in the period after the war we hope the architectural societies and their members will severely discourage the system for relatively unimportant buildings, for which a system of direct selection is infinitely better, but when competitions are held they should be reduced to the simplest elements. Bare sketch drawings to a small scale should be

*Reprinted from *The Architect and Contract Reporter* of London.

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ample for an experienced assessor, for in something like 99 cases out of 100 a competition result is decided on a plan which could be shown as a mere diagram.

The time saved by limiting the tyranny of the drawing-board will be better spent by the architect in devoting more time to acquiring knowledge of practical matters of the law relating to buildings, of materials and construction, and many other subjects. He will probably be the gainer if he gives some attention to the study of the literature of architecture, to buildings old and new, and last, but by no means least, to those subjects on which the world in which he lives is interested—the culture and understanding which the educated man should possess. We are often confronted with instances of men who can produce beautiful drawings, and sometimes magnificent designs, who are totally unfitted to hold their own in educated society, and are unintelligent and dull companions for their fellows. Such men, the true slaves of the drawing-board, are defenceless when they come into contact with men of the world on committees or in business. They explain their points badly, they have no insight into the motives which influence other men, and in some cases having obtained work as the result of a competition they are unable to make good their position afterwards.

We cannot be "all things to all men" if we have never studied them, nor can we expect others instantly to appreciate the points we have taken a lifetime to acquire some knowledge of. The war has made a deep breach in the course of the lives of all of us, both old and young, and to architects in particular it has given time for reflection; and it is much to be hoped that in the future we shall show that we have learned what is absolutely necessary to us if architects are to be an honored and useful part of the body politic, and not merely "slaves of the drawing-board."

The Architect in the Small Community

ON no member of a small community does a greater responsibility rest for the aesthetic development of his town, the correctness of its plan and its various artistic aspects, than on the architect who practices there. In the small community there is a certain intimate relation in the architect's practice, as, in the majority of cases, the man practicing was born there, has received his early education in the town, and at the close of his university career returned to make it a permanent home. He not only feels a personal interest in every phase of the town's development, but he also

has an extended and intimate acquaintance with the majority of its inhabitants.

Having, like Bulwer's hero, "been to Rome" and often traveled in other foreign climes, on his return he is regarded in the largest and broadest sense as an authority. It will often devolve on him to lead his town and its people to their best development, not only in the architectural, but in many of the civic and social phases. While his more prosperous brother in the large city will share his responsibility for that city's growth with a great many other architects, the man in the small community must shoulder much of the blame, and should therefore receive the credit for its architectural development.

Owing to the exigencies of practice, men in the larger towns and cities will find that it will pay them to specialize on certain work, while the architect in the smaller town must, if he is to succeed, possess a versatility that amounts in many instances to genius. Every problem which affects every building that is required by the town demands of him that it be met and successfully solved. Not only must he be, in a sense, an architect trained in all the traditions of the artistic aspects of his profession, but, if he is to succeed, it will be necessary for him to know building methods—and perhaps he must possess a trait of which no cognizance is taken in his professional training, and be, to use the vernacular, "a good mixer."

To the man of proper mental caliber these varied aspects and extended activities in a very dignified profession make life worth living, and give the proper incentive to the highest performance of his architectural functions. But unfortunately the insistence of his professional responsibilities often leaves him but little time to play, or what is even a greater hardship, but few opportunities for information that will help him in his work and assist him over many an abstruse problem or difficult situation. He will not find, as do his brothers in the larger cities, that his office is being thronged with men anxious to inform him of every new material, method, device or accessory that will improve the work he is doing. Such information as he may receive will come to him through the mails, and he will have few opportunities for personal observation of completed work or actual use of specific and newly developed materials.

One of the greatest drawbacks to domestic life in large cities is the comparative isolation of families. One may live in a large apartment house for a number of years and not even have a speaking acquaintance with his neighbor who, for an equal number of years, has lived next to him, separated only by the thinnest of partitions. The social intermingling in the small town is one of its most attractive features.

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Church congregations realize this, and, as a result, the small town church has taken on more the aspect of a community building and less that of an ecclesiastical structure. The value to the small community of a town hall or a town meeting room cannot be overestimated. The typical building, in a town of perhaps 10,000 or less, would be one combining the executive offices of the town, a small auditorium, rooms for the town constable, provision for such jail facilities as might be needed, and of course should include a garage for the town's fire apparatus. The designing and planning of this type of building affords architects in small communities an unusual opportunity, as, owing to a site in a naturally central location, this building would dominate the future architectural development of the community and should also influence in a large measure the extension of its plan.

A well-planned and well-placed town hall is one of the greatest incentives to a neighborly social intercourse and to local civic pride that any small community can possess. Insofar as architects may be able to exert their influence in this direction they can with advantage encourage the development of the small town hall or community building, and thus promote not only the civic but the social well-being of the entire community.

Book Review

THE ENGLISH HOME, FROM CHARLES I TO IV. ITS ARCHITECTURE, DECORATION AND GARDEN DESIGN. By J. Alfred Gotch, F.R.I.B.A., with upwards of 300 illustrations. Full cloth, 400 pages, size 6 x 9, price \$13.50. New York, Charles Scribner's Sons; London, B. T. Batsford.

"In England, more than any other country," writes the author of this work in an admirable introduction, "the affection of people of all ranks of life has clung round their homes."

This statement, undeniably true, points to the exact cause for the steady and picturesque growth of the English home. In none of the types of domestic architecture in other European countries has its development more truthfully shown the affectionate regard of a home-loving people than in England. Whether we trace this impulse in the humble house along the English wayside, the dwelling of the country gentlemen, or the more stately mansion of the Lord of the Manor, the same insistent evidence of a home-loving people is everywhere to be seen.

It is therefore possible, in a close study of the progression of the English home for the past three hundred years or more, to mark the phases of the

country's history in the rise and fall of its architectural vicissitudes.

To the Tudors must be given a large measure of credit for the real beginning of what we now regard the typical English home. It was under the reign of Elizabeth that English houses in reality became homes, and in their design and interior fittings began to assume those aspects of domesticity which mirror the daily life of its inhabitants. It was therefore logical on the part of the author of this entertaining and instructive work to begin with this period the serious phase of his subject.

The present work resumes the story of the English home at the point to which it was carried in the author's former book on Early Renaissance Architecture in England, and brings it forward to the beginning of the nineteenth century. The period covered, comprising a lapse of three centuries, therefore includes the most interesting phases of the entire subject.

Architectural styles, particularly in monarchical countries where the preferences of the sovereign largely influence the subject, are as changeable as the fashions for men and women. The author of a work of this nature can therefore find enough of variety to clothe his subject with interest, particularly if, as in the present book, he gives careful analysis to the causes of origin and a critical survey of the merits or demerits of the architectural tendencies of the various periods.

These changes in style are very thoroughly reviewed in the opening chapter. There are ten subdivisions or chapters to the work and each one takes up chronologically the progress of the English home to its recent high development.

In treating the subject of domestic architecture, it is inevitable that considerable reference be made to architects whose work has been contributory in the most valuable way to its evolution. We therefore have chapters given over to the work of Inigo Jones, John Webb, Sir Christopher Wren, and to other men who, while less distinguished, have exerted a most important influence on the highest development of the English home. Additional chapters treat of the Great Houses and Gardens of England, Georgian Houses, Smaller Types of Houses and a concluding chapter on the Decorative and Interior Features of the Eighteenth Century House. The book is completely illustrated and much of this material is new and not a tiresome repetition of the illustrations of similar works.

As part of the architect's library, it will be of the utmost suggestive value. Its authoritative character is assured as having emanated from an architect whose ability has secured for him worldwide acknowledgment.

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Camouflage

In a recent issue of *Advertising & Selling*, S. Rowland Hall contributes an interesting article, and by an easily understood demonstration shows just how the camouflaging of ships is accomplished. Mr. Hall states in part:

During the past year or so, when camouflaging methods have been observed with so much interest and talked about so much, no doubt many men



FIG. 1

have wondered as I have, just what effect the camouflaging of ships has on their visibility.

At last, some one who is in a position to know, has told us and he has illustrated his explanations with three illustrations that are of peculiar interest.

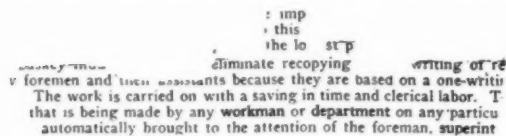


FIG. 2

Everett L. Warner, who is one of the five members of the government camouflage commission, says, in an article in the *Bush Magazine*, that the reason for using the so-called "dazzle system" of camouflaging, by which blotches or patches of color are employed, is so to mottle the vessel with con-



FIG. 3

trasting light and dark colors as to obliterate the familiar lines and cause the submarine to make an error in calculating the distance to the target, her size, her speed, and the course she is following. Mr. Warner explains further that:

"Although it is not primarily intended to conceal a vessel, the dazzle system does furnish a certain

degree of protection under widely varying conditions. The pattern contains dark spots that will blend with a dark shore line, and light spots that match a delicate sky; so that, no matter what the background for the moment may be, the ship's contour will never be seen with perfect definition.

"The difference between that system and the low visibility type of camouflage is largely a matter of scale, and that cannot be better illustrated than by the printed page itself. Headlines look black and the column of fine print looks gray, but there is really no difference between them; the headlines, too, will melt into a delicate gray if you reduce their scale by distance.

"If you will cut out of black paper the silhouette of a steamer like that in Fig. 1, you will see that the contour of a dark boat painted in one solid color is perfectly visible.

"Cut the same silhouette out of a column of fine print and you will have something equivalent to low-visibility camouflage (Fig. 2). It is less visible than the first, but the outline of the steamer can still be discerned.

"Fig. 3, where the pattern of a steamer has been cut out of larger type, illustrates the dazzle system. Note that the contour of the vessel is now exceedingly difficult to determine."

Reconstruction

If the end of the war is not actually in sight, it is within almost a definite distance. It is so near that it behooves us to be thinking and planning what we will do when it comes. Senator Weeks of Massachusetts, believing this, has introduced a bill, or a resolution, for the appointment of a committee of Congress to consider an after-the-war program.

It is well to do something about this matter, and do it at once. But is it wise to entrust it to a congressional committee? It is a matter for the best business experts in the country, and they are not members of Congress. If a committee is formed according to Mr. Weeks' plan, it will almost inevitably be ineffective—not so strong as a committee, or commission, of the best men in the country would be.

The best we can get together will be none too good for the work. It is the very biggest job this country has ever been faced with—this preparing for peace activities after the war.

There are good men in Congress, but the good business men are not in Congress. They are ready, however, to help think out, plan out, what must be done after the war to repair the ravages of war

(Continued on page 489)

THE AMERICAN ARCHITECT

THE AMERICAN ARCHITECT

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Architectural Education

IS it not possible that an underlying and contributory cause of certain unsettled conditions in the profession of architecture is due to past educational methods? Are these methods not, to a great degree, responsible for that type of man who regards the aesthetics of his profession of more importance than its practical aspects? Have we not developed designers to a greater extent than architects?

The most valuable feature of Institute Conventions is the committee reports. In some respects the most valuable of these reports have been those presented by the Committee on Education. Read at the Convention, they receive the usual polite ripple of applause. What becomes of them then? Are they simply filed away? Can they not be revived and discussed to some good end?

After this man's war, education will be in its every phase much more practical than ever before. Why not make architectural education a course of study based on actual practice, and not on pure theory? There are a lot of things the young architect will need to know in the future. He will need to take off those gloves turned back at the wrists, replace his tortoise shell rims with more durable

glasses, shave his artistic Van Dyck, get into the arts and crafts and learn what his buildings are made of.

Universities offer a choice of courses. Why not a selection of special features in such courses? If the student inclines toward design and the artistic phase of this chosen profession, let him follow it. In like manner, let the young man who wants to be an architect—a master builder—give all his time from start to finish to those things which the modern architect should know. There are many things he may omit from the prescribed courses, or which might be but briefly studied, and then he could go ahead with the things that really count in modern practice.

Perhaps past methods of education are really to blame. It would be worth while discussing future ones now, before we are caught in the maelstrom of reconstruction.

The Architectural "Star Chamber"

IF it is true, as recently stated, that the American Institute of Architects has since the last Convention in Philadelphia been actively engaged in work looking to certain reforms in practice, the majority of the profession, like the gentleman from Missouri, will need to be "shown." No hint of such activity can be gleaned from any issue of the *Journal* since the Convention, nor, until now, has even the faintest rumor been heard.

While we are fighting to democratize the world, why not include the American Institute of Architects? If the Institute is in its inner councils debating the grave issues now before us, is it not possible that by taking its members into its confidence it might acquire added sapience and find a quicker solution for present difficulties?

Star chamber methods are a relic of autocracy and not consistent with the principles underlying our present struggle.

A Word of Warning

UNDOUBTEDLY those in Washington in charge of the regulation of matters pertaining to building, realize that the peak of Government operations has been reached and that the time is rapidly approaching when war requirements will no longer demand the entire cessation of every other branch of building.

There are many "straws" which indicate the direction of the current of governmental attitude toward building, and these make fair the assumption that at an early date the barriers will be let

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down and the preliminary on-rush to an after-the-war activity will have begun.

It is also further evident that this preliminary preparation toward reconstruction is not confined to building alone, but in other directions also, many of the barriers against industrial activity will be removed and we shall start on the course in the race for the markets of the world.

There is a well-grounded impression that plans have been perfected by the National Council of Defense that will, at the proper time, set all this vast machinery of reconstruction in operation. Just how well prepared we shall be when the time comes remains to be shown. Have we in this country, or will we have, the stocks to meet the enormous demand and to continue production from day to day as this demand increases?

Some observers express a most optimistic view as to our preparedness in the aftermath of the recent South Amboy munition plant explosion. There was, it is claimed, a sudden appearance of material of all descriptions necessary in the replacement of shattered glass, of roofing materials and other basic things.

The comparatively limited amount of material required in that emergency bears a small proportion to the enormous after-the-war needs. It would seem that optimism might be overdone in accepting this single instance as evidence that we shall be able to supply the great demand from present stocks.

It is therefore incumbent on every architect, every builder and contractor and every prospective client to be ready. The time is not far off now. No Klondike rush for ore-laden riffles will equal the one that is impending in every industrial field.

Those who have the basic materials or the means of production may be sought for, but those who now make known the facts of their preparedness to serve will reap the harvest.

Professional Advertising

PRINTERS' INK, in a recent issue, asks the question whether the American Medical Association and its members could not advertise in a dignified, ethical, confidence-producing manner. This query was prompted by the advertisement of a company largely engaged in the manufacture of proprietary articles in which there was set forth the necessary sanitary and preventative measures against the spread of Spanish influenza.

Why, the editorial asks, should not doctors everywhere serve the public as a whole, under similar conditions of epidemic, by disseminating health information freely by means of the far-reaching advertisement? And, why not?

The theory that the man who made the best mouse trap would find that a well-trodden path had been made to his door, was very well and prettily expressed fifty years ago. But to-day the paths of other makers of mouse traps cross that of the original one, and in the maze of paths the traveler will be lost unless he has a well-constructed guide post, the advertisement, to lead him on the right road.

Among the many mistaken ideas that this war has shattered, professional advertising may be numbered.

To continue the reference to trite expressions, it is time that architects, and doctors, too, quit "shouting down a well" if they are going to take their just share of future prosperity.

The "West Front" and Building Restrictions

THERE is a closer relation between the progress of the Allies on the west front in France and the ban on building as at present laid in this country than the superficial reader may at once detect.

In addition to the enormous consumption by the Government of building materials used within the borders of the United States, an almost, if not equally enormous quantity has of necessity been shipped to France to supply a shortage brought about by reason of the occupation by the enemy of large areas in France where are located mines and other sources of supply.

The fall of Lens has made available to the Allies its rich coal supply. Metz, now almost within our grasp, has large resources of ore. The certainty now everywhere realized that the Allies are winning and that in the steady advance other equally important areas of supply will come within their control, makes it possible for this Government to relax to a considerable degree the restrictive measures as to materials heretofore necessary.

These things all foreshadow an earlier adoption of a policy of reconstruction than was believed possible three months ago, and these events will without doubt accelerate the resumption of more normal conditions of building.

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Reconstruction

(Continued from page 486)

and get business back into more or less normal channels.

Mr. Weeks is a banker, and he knows as well as anybody that the job he has proposed to undertake should be done by the very best business men in the country. Why did he not make his resolution provide for a commission to be chosen by the President, and give him liberty to get the best men in the country?—*Advertising & Selling.*

Safeguarding Factory Workers from Fire

The report of the Committee on Safety to Life has been approved by the Executive Committee of the National Fire Protection Association for promulgation and has been issued as a pamphlet under the above title. The pamphlet contains a complete set of rules for measuring the exit capacity of any given factory building and for determining the safe permissible number of occupants. The rules are so drawn as to be easy of incorporation in legislative enactment, and it is the intention of the Committee on Public Information to undertake a campaign in favor of their universal adoption as safety standards. Copies may be obtained from the Executive Office at the price of 10 cents.

Responsibility in Labor Employment

The inauguration of the United States Employment Service as a branch of the Labor Department does not relieve the employer of the responsibility of keeping his own house in order, has been stated by Mr. Baruch, chairman of the War Industries Board.

If the Government assists in finding men it lies with the employer to do his part in putting his employment practice on a scientific basis. It will certainly be no recommendation for an employer, in the eyes of his local employment board, if he admits that he still continues the antiquated hiring-and-firing process, or that he has a high labor turnover, or that he has no department charged with responsibility for maintaining proper working conditions. Industrial experience proves that employment problems can best be solved by having a separate organization in a factory prepared and equipped to deal with questions of personnel by themselves. The prompt discovery and analysis of unfavorable

working conditions can only be made by a central employment bureau.

Even at this point, however, the Government has not deserted the employer. Realizing that even before the war the demand for well-trained employment managers was increasing faster than the supply and that the exigencies of war work have emphasized the tendency, the several departments of the Government, the Department of Labor, the War Department, the Navy Department, and the United States Shipping Board, through the War Industries Board, have arranged for courses in employment management to be given in some of the leading schools of the country. The courses of instruction have been outlined by Capt. Boyd Fisher, who before entering the Army was vice-president of the Executive Club of Detroit. To these courses the employer may send men or women from his organization who will be drilled in the latest and best employment management practice by some of the leading authorities in the country.

Re-educating the Italian Soldier

Wood-working establishments are being erected at various points back of the Italian lines for the express purpose of teaching Italian war cripples wood-carving, box-making and other industries requiring the use of timber.

It is said that many of the Italian soldiers show themselves as adepts in the wood-working art, and it is the aim of the Italian Government to encourage these propensities as much as possible and at the same time assure the establishment of an industry which will be of direct benefit to the entire population.

Building for Profit

The final test of a building, comments an exchange, is its utility. In a commercial structure the gage is its earning capacity; in a private residence success is largely measured by the degree of comfort and convenience accorded the occupants.

Whether the return take the form of rent or its equivalent in use and occupation, the building represents an investment of capital for profit—and there can be no profit unless it serves some true and useful purpose.

Not only must a building be of service, but there must be a demand for its use. The mere fact of its existence does not create a demand. The form of its utility must be well defined and the building must be strictly in harmony with its environment.

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In every form of improved real estate there are two correlated aspects—the land and the structure. There is small return from land where it is used for other than agricultural purposes. To be of service or earn income, land must be exploited, and it can yield profit by one means only—a building. Otherwise it possesses only a potential value, influenced largely by adjoining property, rising values, which mean increased taxes, and the tax collector, like “the great adventure,” is one of the certainties of life.

Modern cities are the result of corporate human inactivities, linked together into one civic whole, and finding expression in buildings. Esthetic influences are, as a rule, limited to the architectural character of buildings, and seldom determine their erection. The driving force is the satisfaction gained in providing for material needs.

In any preliminary consideration the first essential to establish is the ultimate use of the property. With this definitely settled, and the amount of the building appropriation determined by the anticipated rent in due proportion to the value of the land, the owner may approach his builder.

Control of Proposed Construction

The War Industries Board has placed jurisdiction over building construction in New York in the hands of the Mayor's Committee of the Council of National Defense.

In New York State and in New Jersey these matters will be under control of the respective State Councils in Albany and Trenton.

All highway work for New York and New Jersey will be controlled by the State Commissioners of Highways. New York headquarters are at 53 Lancaster Street, Albany; New Jersey headquarters at the Capitol Building, Trenton. Pending further revision to be worked out by the Council of National Defense and the War Industries Board as conditions warrant, the following rules are in force:

“Any person interested in construction must apply, with a full statement of the facts under oath, to the appropriate local representative of the various State Councils of Defense.

“This representative of the State Council will investigate the necessity of the proposed construction and transmit recommendations to the State Council for review.

“The State Council will review the case, and if it decides in favor of the construction it will at once send its recommendation, with a full statement of all the facts, to the non-war construction section of

the priorities division of the War Industries Board. The non-war construction sections will grant or withhold the permit and so notify the State Council of Defense and the individual concerned.

“If the State Council decides against the proposed construction, it will notify the person concerned that his project has been disapproved.

“The War Industries Board will inform all persons applying directly to it that they must first take up their projects with the appropriate local representative of the Council of National Defense.

“The ability of the War Industries Board to enforce this whole plan rests upon the fact that it controls priorities and has also obtained from the manufacturers of building materials a pledge not to supply materials for projects which are not authorized under the regulations of the War Industries Board.”

The encouraging features about this new turn in the building interests is that instead of six boards or bureaus having jurisdiction over building construction and material supply, the War Industries Board, the State Councils of National Defense, the Department of Labor, the Capital Issues Committee and, in a way, the Fuel Administration, under this plan are all co-ordinated and the possibility of conflict of orders governing the essentiality of proposed construction is entirely removed.

Joseph McGinniss Dead

Joseph McGinniss of Boston, widely known as a designer of Catholic churches, is dead. He was 34 years old.

Mr. McGinniss received his early education in the Boston schools, and was later graduated with honors from the Massachusetts Institute of Technology. In 1910 he won the Rotch Traveling Scholarship, and after two years in Europe returned to Boston, where he was engaged in practice up to the time of his death.

Additional Government Housing

Officials of the War and Navy departments, the Aircraft Production Board and the Government Housing Corporation told the House Building Committee on September 26 that an additional appropriation of \$194,607,000 for building homes and providing transportation for war workers in congested industrial centers soon will be asked of Congress.

Work in a large number of cities, including Philadelphia and Dayton, Ohio, is planned.

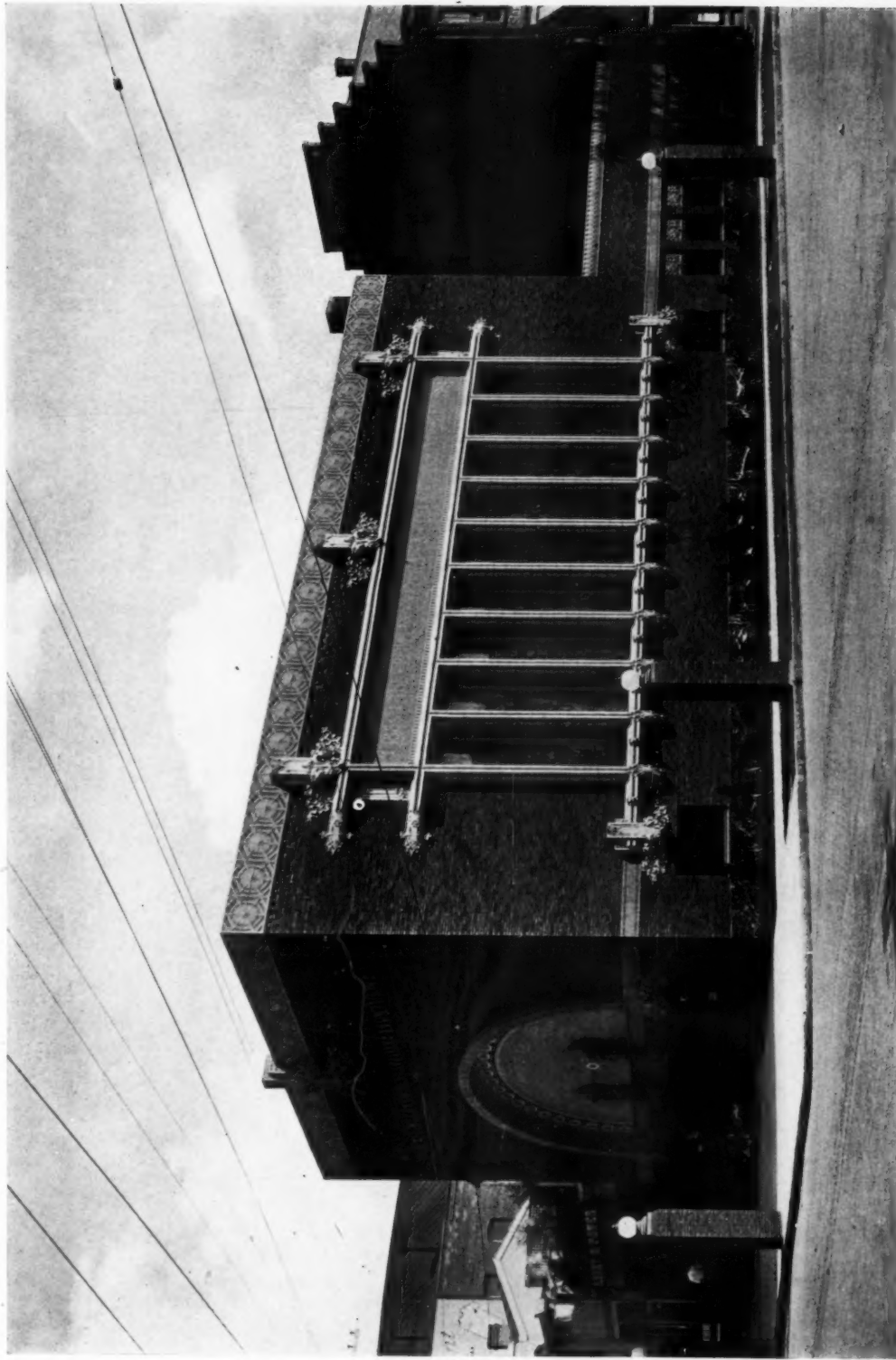
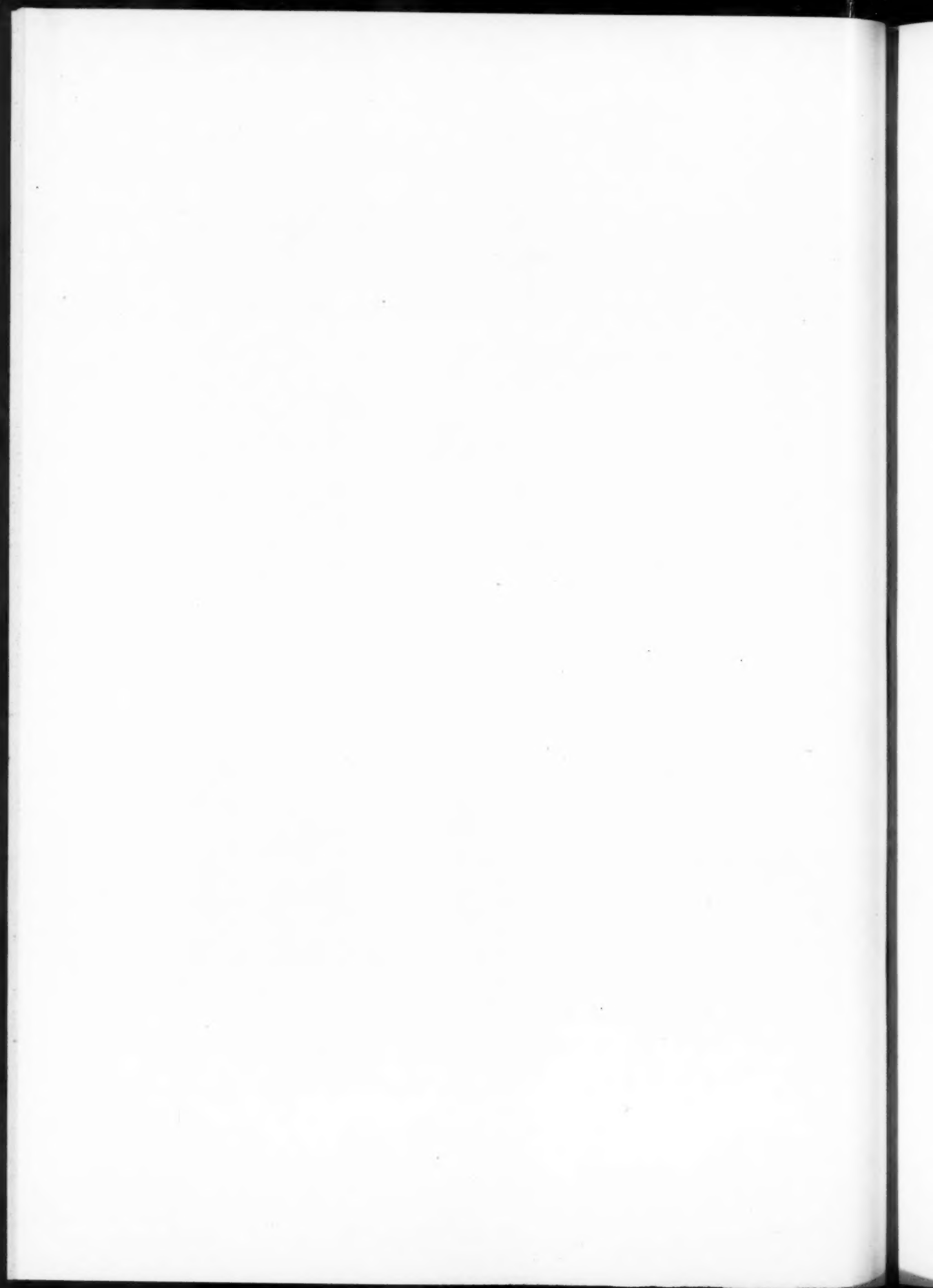


PLATE 121

BANK BUILDING FOR THE PEOPLES SAVINGS AND LOAN ASSOCIATION, SIDNEY, OHIO

LOUIS H. SULLIVAN, ARCHITECT



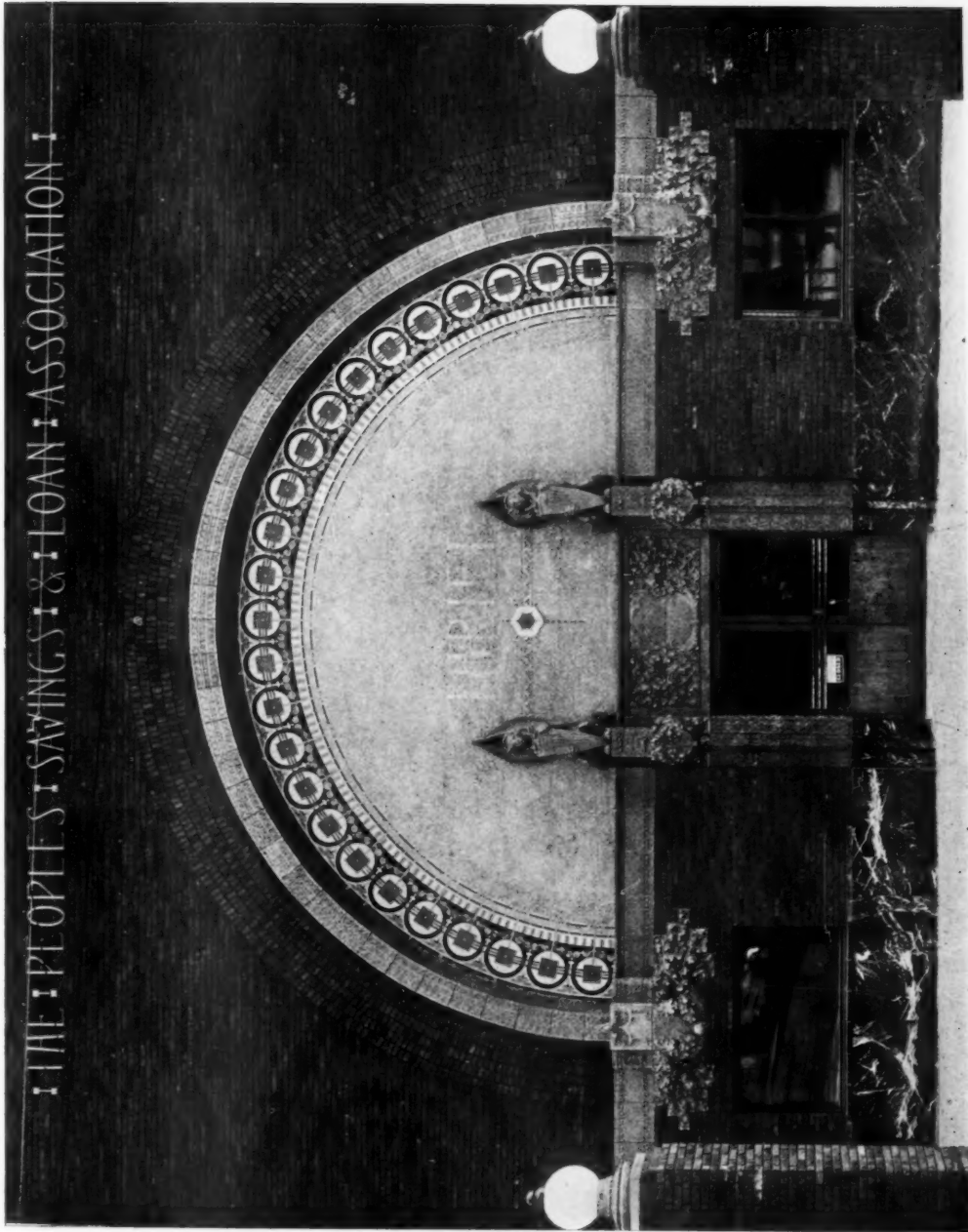


PLATE 122

DETAIL OF MAIN ENTRANCE

BANK BUILDING FOR THE PEOPLES SAVINGS AND LOAN ASSOCIATION, SIDNEY, OHIO

LOUIS H. SULLIVAN, ARCHITECT



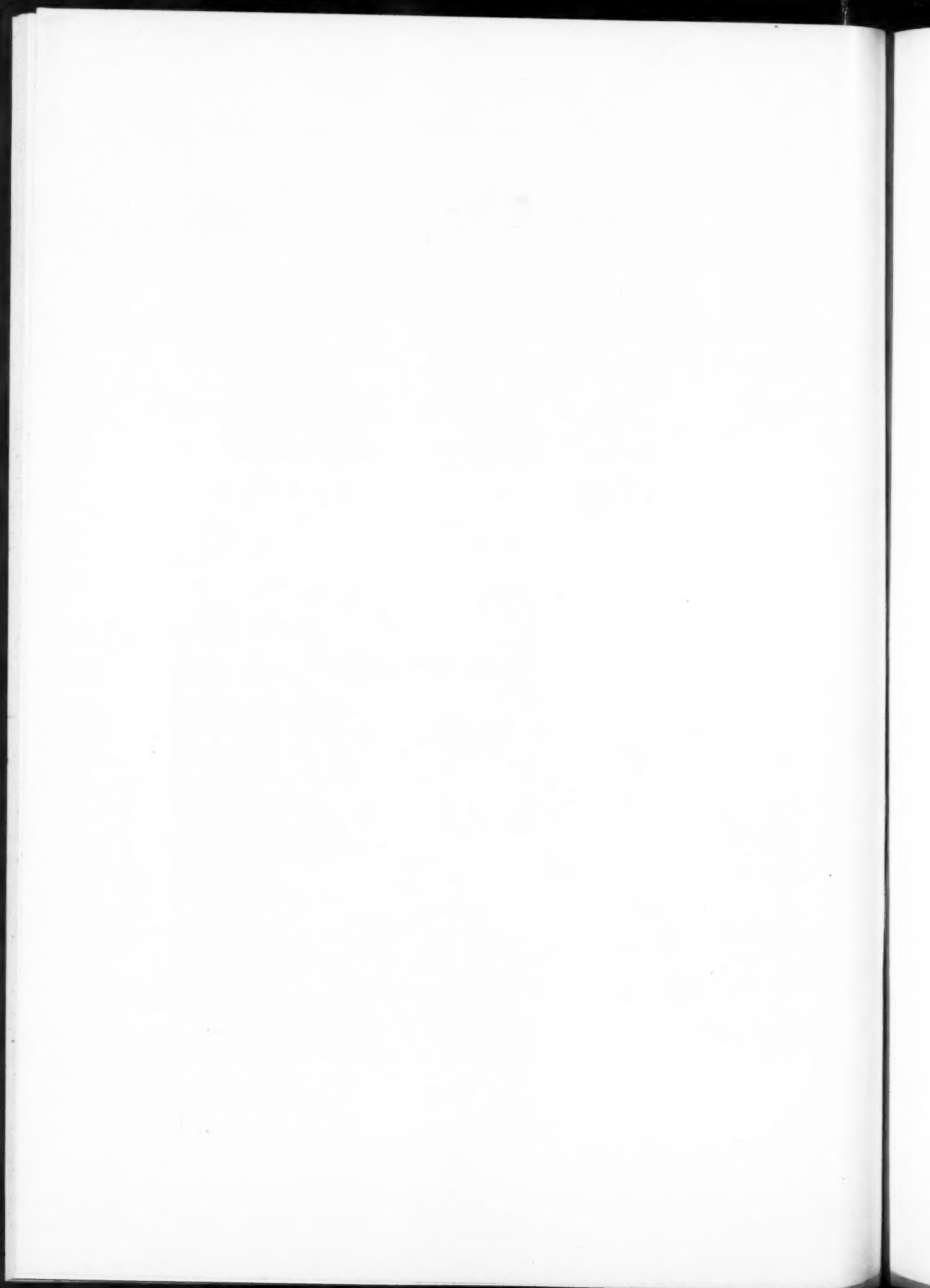


PLATE 123

EXTERIOR DETAIL.

BANK BUILDING FOR THE PEOPLES SAVINGS AND LOAN ASSOCIATION, SIDNEY, OHIO

LOUIS H. SULLIVAN, ARCHITECT



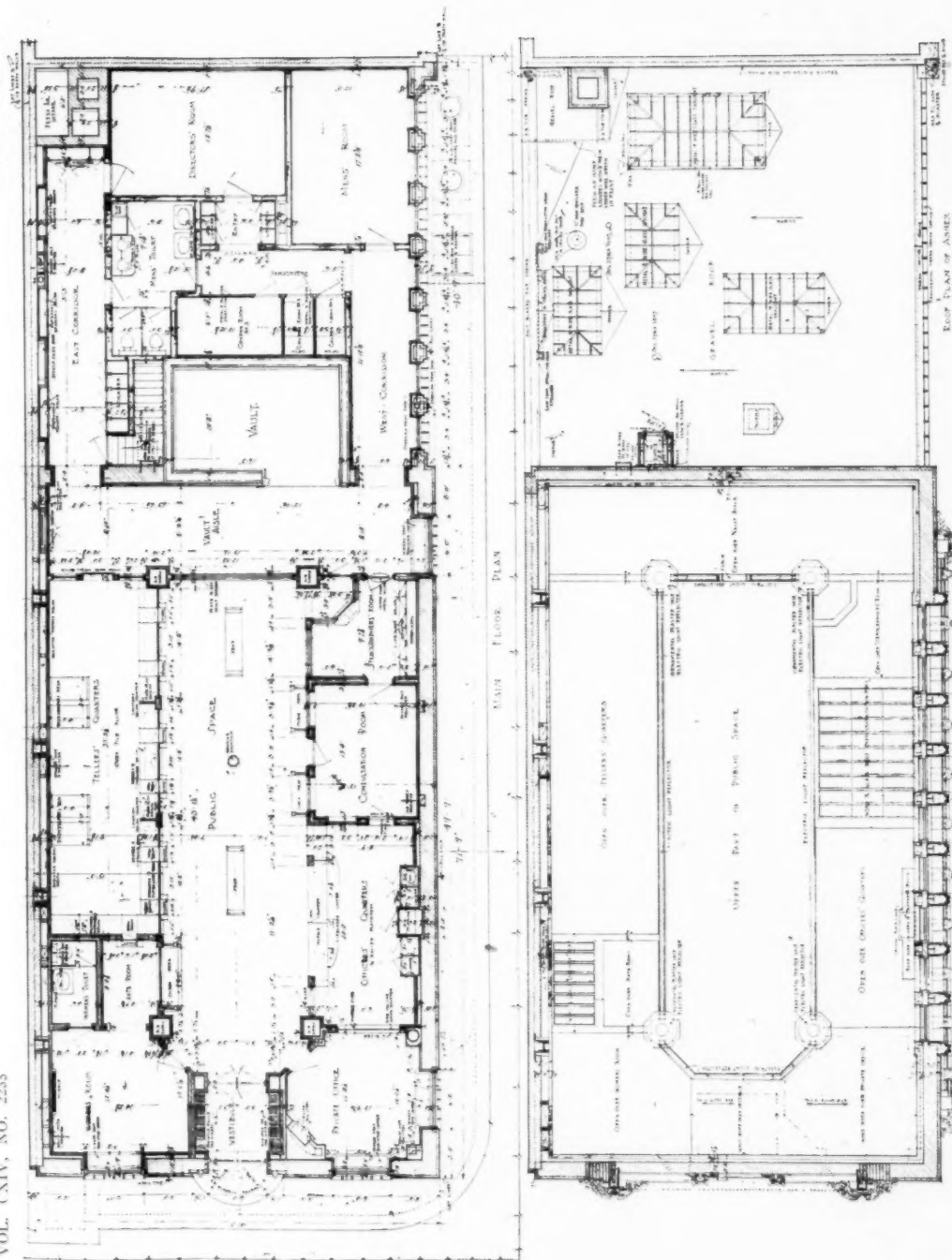


PLATE 124

FLOOR PLANS

BANK BUILDING FOR THE PEOPLES SAVINGS AND LOAN ASSOCIATION, SIDNEY, OHIO

LOUIS H. SULLIVAN, ARCHITECT

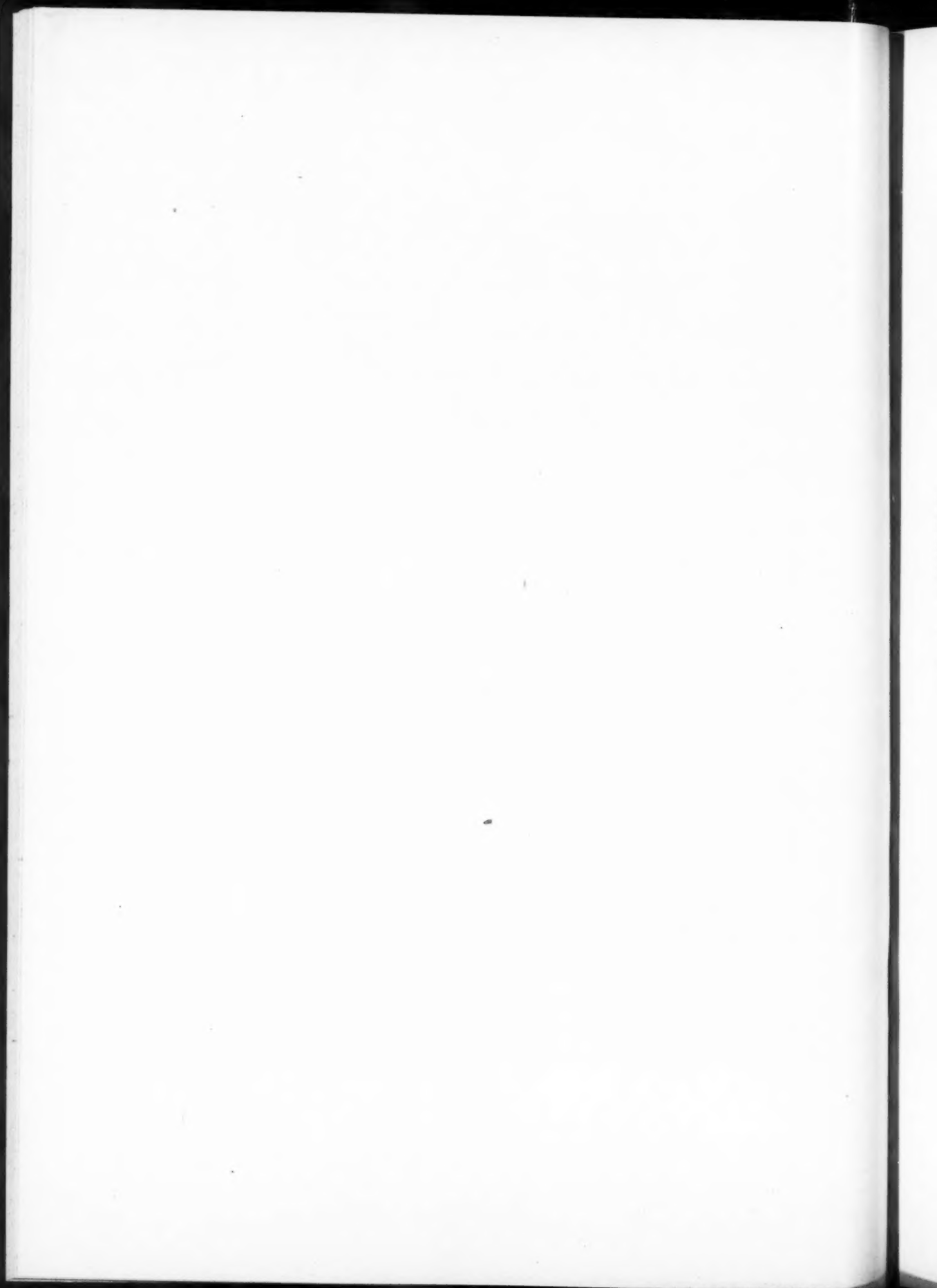




PLATE 125

MAIN BANKING ROOM

BANK BUILDING FOR THE PEOPLES SAVINGS AND LOAN ASSOCIATION, SIDNEY, OHIO

LOUIS H. SULLIVAN, ARCHITECT

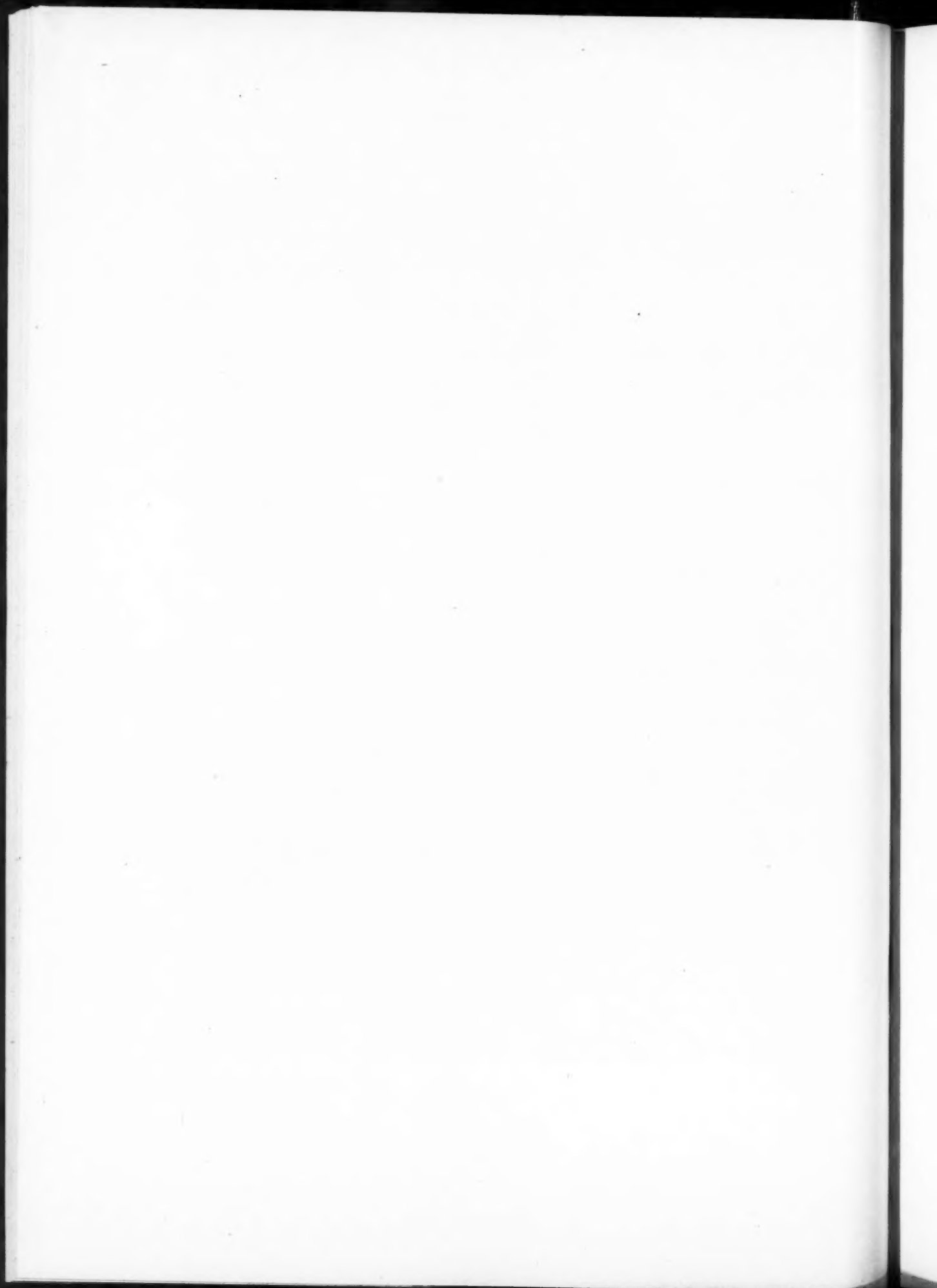




PLATE 126 DETAIL OF INTERIOR, SHOWING PYLON WITH VENTILATOR AND REFLECTOR

BANK BUILDING FOR THE PEOPLES SAVINGS AND LOAN ASSOCIATION,
SIDNEY, OHIO

LOUIS H. SULLIVAN, ARCHITECT

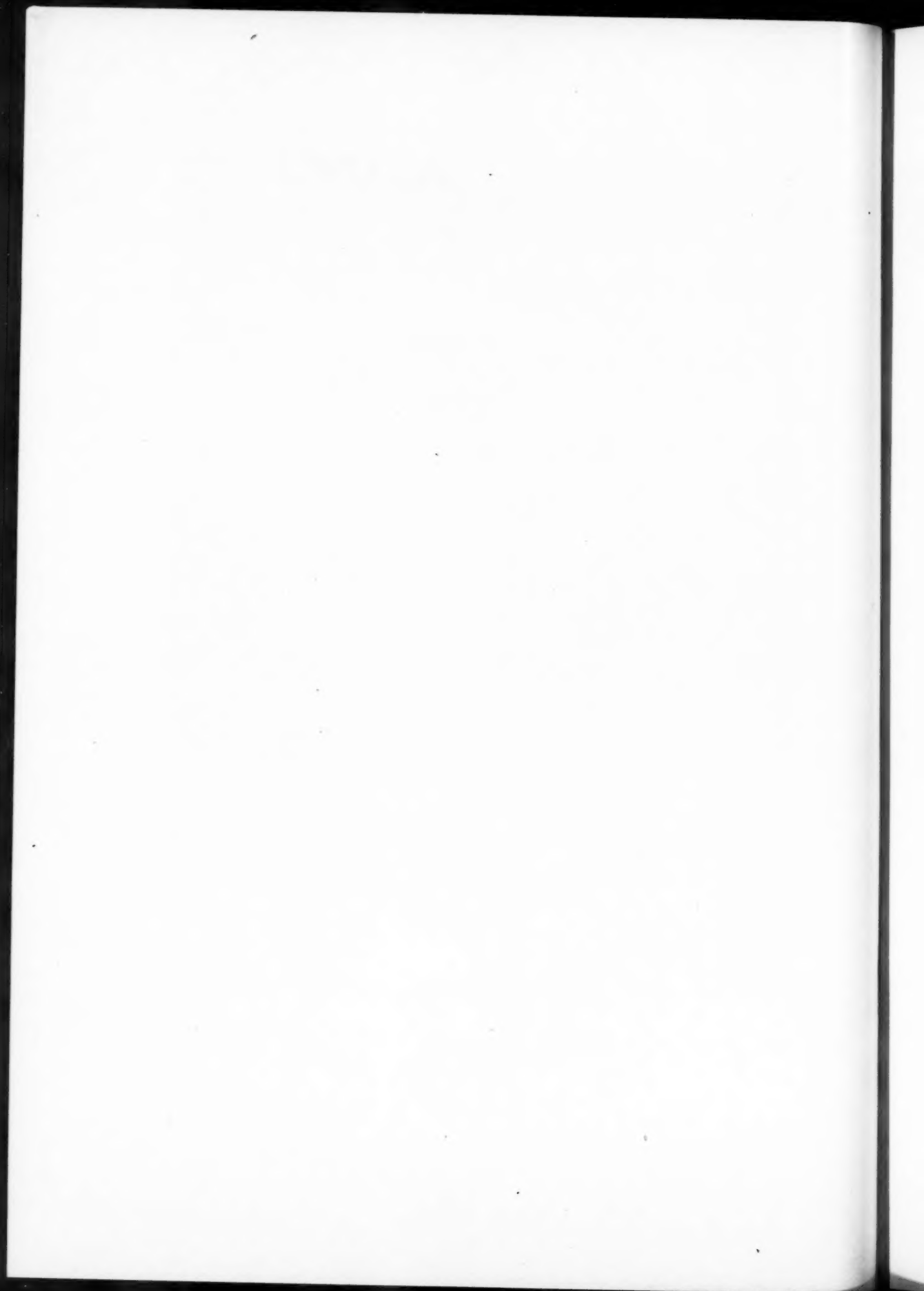




PLATE 127

INTERIOR DETAIL SHOWING VAULT WITH DOOR CLOSED

BANK BUILDING FOR THE PEOPLES SAVINGS AND LOAN ASSOCIATION,
SIDNEY, OHIO

LOUIS H. SULLIVAN, ARCHITECT

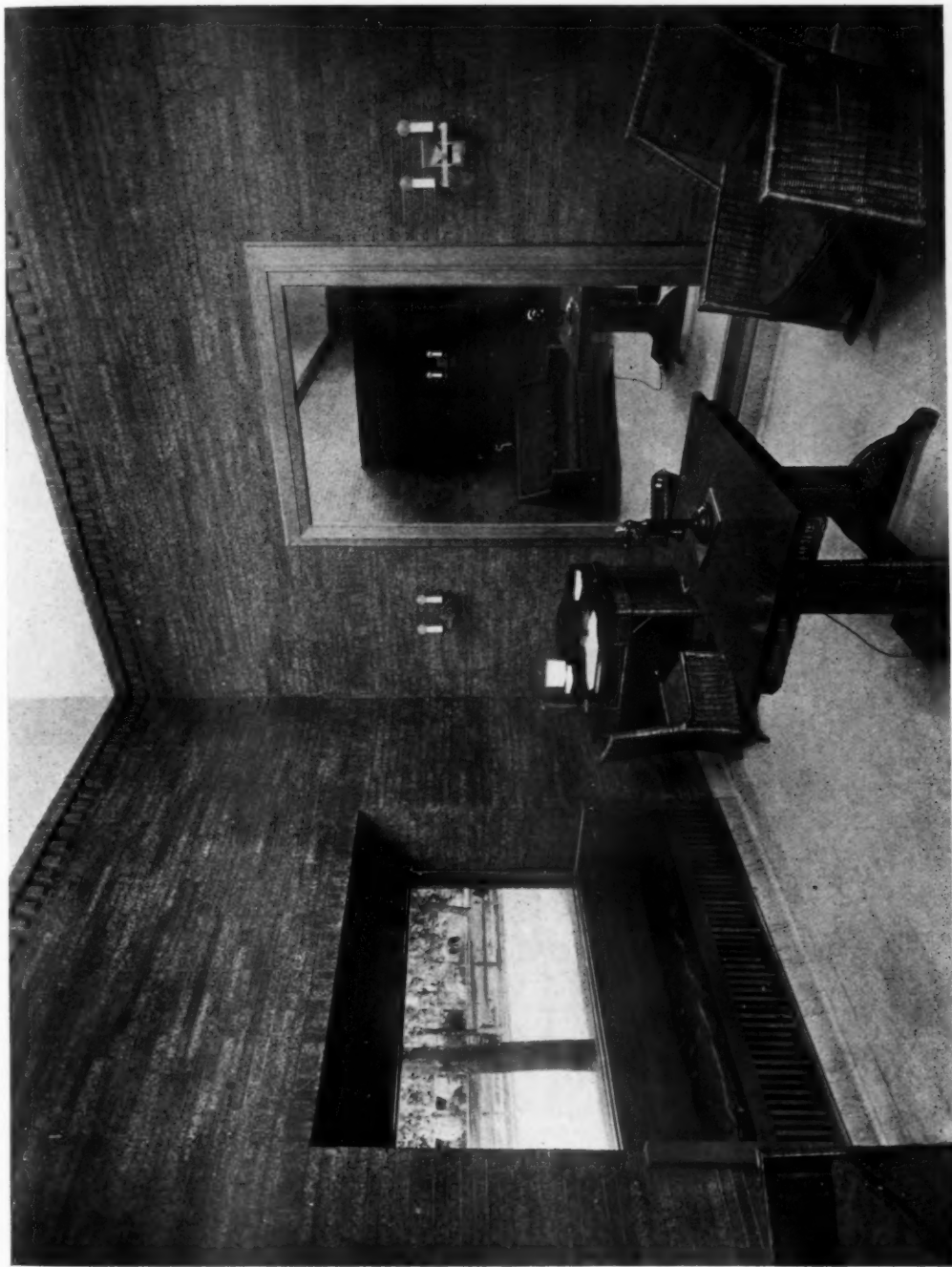


PLATE 128

LADIES' RECEPTION ROOM

BANK BUILDING FOR THE PEOPLES SAVINGS AND LOAN ASSOCIATION, SIDNEY, OHIO
LOUIS H. SULLIVAN, ARCHITECT



The Selective Draft and the English Language

An important step in the Americanization of the alien is the big, patriotic opportunity presented to the industrial leaders in the United States. It has been found necessary in the camps to separate the men who do not speak English into foreign language battalions, and give them leaders who speak both their language and English in order to facilitate their fitness for transfer to replacement camps and to expedite their going to France.

There will be many foreign-born men between the ages of thirty-two and thirty-six who will be sent by the next call. The agreements with Italy, Greece and other nations mean that these men will be called upon for service under the American flag or under their own flag.

Before the call comes these workers will have been engaged in the industries of America. In many of these the hours are such that the men cannot go to night school; in some new industrial towns the public schools have not yet been able to make provision for them.

It is therefore suggested as a means of winning the war that every plant employing men of foreign birth within the draft age, not able to speak English, assemble these men at once in classes within the plant either on company time or at the close of work, teach them English and instruct them about the war. This will obviate a large part of the delay in training camps and get the men to the front more quickly.

Training Physically Unfit Men for Useful War Service

In order that the Army may be effective, it is important that men for overseas duty be suitable for any class of combat service. The physical examinations required are very rigid, and have heretofore precluded the use of large numbers of men of exceptional trade skill or high professional ability and knowledge. One of the particularly important functions of the development battalion is to provide opportunities for utilizing this material in capacities where very minor defects do not interfere with their effective use.

In this way it is possible to replace men who are perfectly fit for overseas service by men who are in what is called "limited-service classification."

At this time men in all branches of the Army heretofore engaged on semi-civilian work, or work which can be equally well performed by men with slight physical defects, are being replaced, and ultimately, through the operation of the development

battalions, practically all of the permanent or semi-civilian work of the Army in the United States will be done by these men.

The first of a series of monthly reports have been received from 29 camps in which there are now operating 51 development battalions, and to these have been transferred about 50,000 men. Other battalions are to be formed, and the indications are that the total number of men who will be in development battalions, at least in the first instance, will approximate 100,000.

England Plans for Reconstruction

In an article in *Advertising & Selling* discussing the plans outlined in England for reconstruction after the war, the writer draws a parallel between the activities thus far shown in this country and the large measure of preparation England has made. He writes as follows:

On the whole, as a country and as an aggregation of manufacturing concerns, we are waiting for peace in a serene consciousness that there is some special providence which cares for the young and the incompetent; and we are making no plans for after the war.

But it is not so with Great Britain. That Government is leaving nothing to chance. It has often been observed that the war already has caused the industries of Great Britain to turn over a new leaf. England is not to-day the England of the Spring of 1914. It is about as radically changed as it is possible to imagine any country to be changed in the course of two or three generations. In an industrial sense, England has lived a century in the course of these four years. Also, Great Britain has learned a lesson from Germany—a bitter but immensely profitable lesson.

Now, while she is straining every nerve to win the war, Great Britain yet has found time to consider after-the-war problems, and begin the immense task of their solution. Consider the great array of new and unknown conditions which the war has imposed upon the business world, and the position of England in Europe and the world; remember that she has been, and is, putting into the war 100 per cent of her man and woman power, and reflect that for long and tense months she had to face the possibility of not being able to repel the Hun from her shores and her cities.

And then consider that in the midst of the welter of war and the ecstasy of fighting for life Great Britain has calmly thought out a very wonderful program to be carried into effect after the war—to repair the ravages of war, to get the soldiers

home and again into industrial work, to turn the munition industries into commercial channels, to take care of the millions of women now in industrial work, to begin again the activities of peace, to restore the commerce of the world, to plan and promote the rebuilding of the devastated regions; to make nations again of Belgium, Serbia, Russia, and the other almost obliterated countries, and finance them until they regain some hold on life; to guard the world from danger from a rampant Germany not sufficiently cowed, it may be; to rearrange the nations that have been fighting with Germany; and to do many other things that fall into the category of the "White Man's Burden."

Markers for Lincoln Highway

Eugene H. Taylor of Cedar Rapids, Iowa, a member of the Iowa Chapter of the American Institute of Architects, has been appointed by the committee in charge to design permanent memorial markers for the Seedling Mile which the Lincoln Highway Association is constructing now in Linn County.

Mr. Taylor is in touch with Elmer C. Jensen, chairman of the Lincoln Highway Committee of the American Institute of Architects, and it is expected that a highly artistic and permanent marker will be designed and erected on this first piece of concrete construction in Linn County, which is also the first Seedling Mile to be constructed in the State of Iowa, and one of the very few pieces of permanent improvement so far built in the entire State, outside of municipal limits.

Government Action Practically Stops Building in Certain Sections

The first announcement of the more stringent regulation of building construction by the Government had the effect in many cities of an almost complete cessation of the issuance of building permits. A reaction has already occurred in a number of communities. Thus, it is announced that at Pittsburgh steps are being taken between the local council of defense and the city building inspector to systematize the granting of permits. The city bureau of buildings has no authority to refuse permits which call for buildings conforming with city building regulations. However, construction will not be privileged until permission is granted by the Council of National Defense. The conferences that are in progress in many cities in reference to the essential character of contemplated construction promise to give a somewhat broader authorization to construction work than was indicated at first.

Skilled Office Men Wanted by the Army General Staff

Manufacturers and business men have been requested to co-operate with the General Staff in securing for it skilled office men. At the present time there is a pressing need for men who have demonstrated their qualifications and ability in commercial life, especially those possessing experience in statistical work, factory production, accountancy, purchasing, merchandising, and warehousing.

Fire—The Kaiser's Ally

The National Board of Fire Underwriters announces that the number of fires that are traceable to the Kaiser's agents has been over-estimated, but the number of fires that are working directly and effectively for the Kaiser can easily be stated. It averages fifteen hundred per day. In other words, preventable fires which destroy property are diminishing our national resources, for all of which we have urgent need in waging war to an extent little realized by uninformed people. Twenty-nine per cent of all fires are found by the Fire Underwriters to be strictly preventable, forty-eight per cent due to causes which are partly preventable and twenty-three per cent to unknown causes which probably are largely preventable.

Wilbur E. Mallalieu, general manager of the National Board of Fire Underwriters, is authority for the statement that what can be done in the way of fire prevention, in terms of building codes, fire-proof and fire-resistive materials, lighting, heating and power installations, alarm systems, fire protection devices and fire fighting apparatus, has been amply demonstrated in the great mushroom wooden cities, the army cantonments. These cantonments were, during their erection, given every reasonable provision for fire prevention and fire protection consistent with the conditions under which they were built. Up to the time they were turned over to the Government there were fire losses of less than \$3,000 upon approximately \$100,000,000 of construction. This, Mr. Mallalieu says, is a record.

He lays the great fire cause to the one distinguishing American trait of carelessness, and pleads for a new point of view toward life generally.

If the temporary frame buildings in the cantonments can be rendered practically immune to fire hazard it looks as if it were worth while for every realty man to take steps to assure his brick and stone buildings the same measure of safety when to do so is so much less difficult and means so much more financially.

Department of Architectural Engineering

Wash and Locker Rooms

By HAROLD L. KRUM*

IN considering my subject there have been several different aspects presenting themselves. My earliest impression of factory men was formed as a boy visiting in an industrial community. When the quitting time arrived I looked at the passing workmen with grimy hands and faces, and still greasier clothes, with no desire to enter upon work of that nature.

In more recent years I have observed men similarly unkempt crowd against the lighter colored clothes of the gentle sex and leaving evidence of their passing; or observed the after effect when some lady has occupied a seat just previously vacated by some workman who unknowingly made his mark—a grimy one, of course.

The public at large have just ground for complaint in demanding that these conditions be remedied. There is, and has been for several years, no plausible reason why any industry should at closing time turn into the street and public conveyances a greasy, dusty or ill-smelling workman, as the case may be, from varied occupations.

On the other hand, the employee has reason to expect that facilities will be placed for his use that will enable him to return to his home in a recognizable state, a worthy pattern or example for his family.

Looking at the matter from a purely selfish viewpoint, we all concede that a slovenly appearance indicates a slovenly mind, and hence slovenly workmanship may be expected. If provision is made to change from street clothes to work clothes, and later personal cleansing after work, before retiring at night, we may expect our men to carry themselves with an assurance that presentable appearance only affords. With the shedding of factory garb it becomes easier to cast aside the unpleasant thoughts, worries and annoyances of the day.

We are judged by appearances, and with the public at large surely a very unfavorable impression of

some industries must prevail; and this same thought undoubtedly extends to some who might have entered employment had the appearance of workmen suggested inviting working conditions. If a workman presented himself at the employment window, in normal times, appearing as he does on leaving some industries the analysis would be that he is a bum and not worth considering.

It becomes of mutual interest for the employer to provide for the employee safe storage for street clothes where they may be accessible at quitting time, free from dust and odor, and where his sweaty work clothes may dry before they are required on the succeeding day; and also to have proper wash and shower rooms in conjunction therewith. Comradeship is also promoted among the men, owing to the association morning, noon and night while in the change and wash rooms.

LOCATION

It is contended by some that wash and locker rooms should be in a building separate and apart from the place of employment. Advantageous features of such arrangement suggested are freedom from the dust and odors of manufacture, greater accessibility to sunlight and free circulation of air; also its possibilities in architectural and landscape effects, beautifying the plant. To those who object to employees taking a "bite between meals" this plan places lunches in a less accessible location. Incidentally some employers support this latter practice.

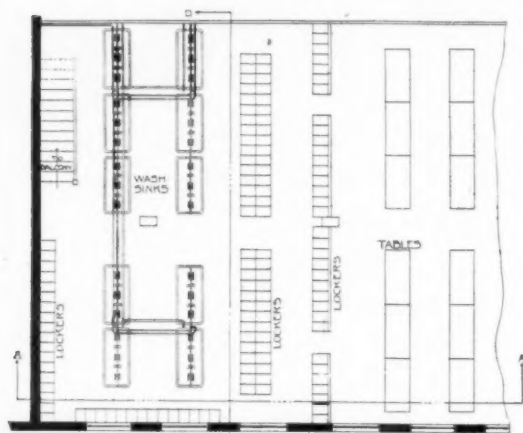
With a range of climate such as is generally found in this country, from mild to severe, sometimes within a day, it would be more than foolhardy to expose a perspiring worker to the elements while en route from his workroom to the wash-locker room. The preferable location, therefore, for these facilities, from the viewpoint of health as well as economy, is in a portion of the workroom or in the same group of buildings where the employee will not be exposed to climatic changes.

*Works Director Claim and Safety, Deering Works, International Harvester Company, Chicago.

Switch tracks, etc., are also avoided by this arrangement.

Such facilities, where in a portion of a manufacturing building, should be located along the route to and from work, preferably in a corner, where light and air enter from two sides. Additional ventilation may be available from workrooms where manufacturing permits. The area assigned should be of sufficient size to avoid interference of men, and separated from workroom by fireproof partition.

NOTE.—No sanitary installation should under any condition be installed in same room with lockers.



Plan of Wash Room. Average total height 13 ft. 6 in. Height under mezzanine 7 ft. 6 in. Windows 4 ft., 6 in. by 9 ft.

wash sinks, or showers, but should, however, be reasonably convenient.

FEATURES COMMON TO WASH, LOCKER AND SHOWER ROOMS

Doors.—Two self-closing doors are recommended, marked respectively entrance and exit to avoid confusion. Both doors to have wired-glass observation windows to avoid injury by collision, and both to open outward in accordance with fire rules.

Windows.—Windows should be of proportions ample enough to afford adequate light and ventilation. Swinging type of window is preferable.

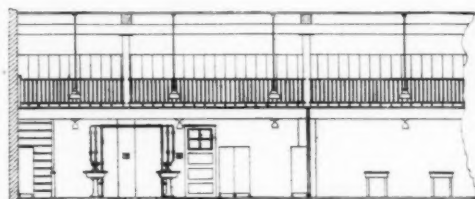
Trim.—Best sanitary measures indicate that hospital practice be followed; that is, to eliminate all trim (window, door casings and base), and finish floor, ceiling and all corners round.

Plaster.—Rough wall finish, while attractive, collects dirt; it is therefore recommended that a smooth special mixture cement be applied.

Floor and Drain.—Floor should be of a smooth

cement, properly pitched to drain to the center of wash sink or shower compartment to be drained. Floor material should meet wall line with a fillet and extend upward about 6 inches, presenting a base impervious to water used while washing down with hose.

Illumination.—Adequate lighting installation, preferably electric, should be provided sufficient to



Section AA of Wash and Locker Room.

light all portions of rooms and compartments equally.

Decoration.—Rooms should be painted in color sufficiently light in shade so as to add to illumination and expose any unclean areas.

Heating of Water.—Either of two methods are suggested in the heating of water: to use live or exhaust steam through a coil in boiler regulated by automatic control. The exhaust-steam method obviously is most economical.

Heating of Rooms.—It is recommended that heating facilities be sufficient to maintain an equal temperature in room or rooms assigned. That coils or radiators be so arranged as to permit cleaning beneath and about same.



Section BB of Wash and Locker Room.

Hose Connections.—Sufficient connections should be provided in various rooms for attachment of hose for cleansing purposes.

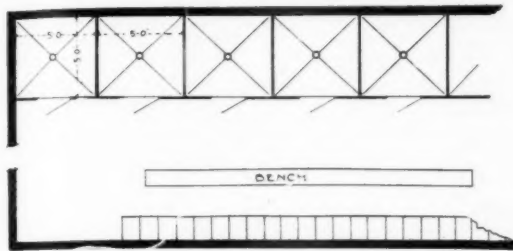
LAVATORIES VS. WASH SINKS

From a factory viewpoint, lavatories are considered objectionable for sanitary reasons. Where workmen use stoppered basins in rapid succession, they could not, if they would, properly cleanse

THE AMERICAN ARCHITECT

lavatory before the one next in turn used same; consequently, the residue becomes increasingly evident.

An installation that permits washing under a stream of running water of proper temperature

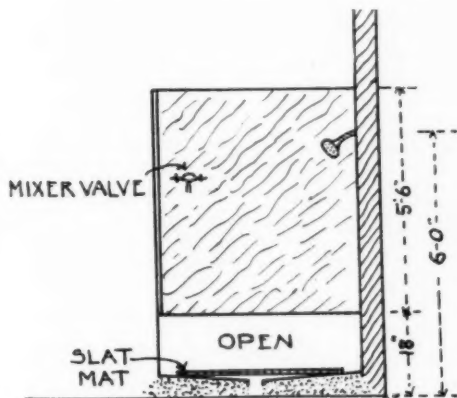


Plan of Shower Room

overcomes difficulties mentioned, and a more thorough cleansing is afforded with less loss of time.

WASH SINK

A wash sink of our design, known as the "Harvester" type, meets all objections from a sanitary viewpoint. It might be termed a roll-rim, flat-bottomed, enameled-iron sink, measuring 30 in. x 6 ft. x 8 in. deep, its rim rising 31 in. above floor and being supported by two enameled-iron pedestals. It is fitted with two low-pattern, double-pipe supports, with six double-mixing faucets marked for hot and cold water, with three galvanized, malleable-iron faucet connections, right and left-



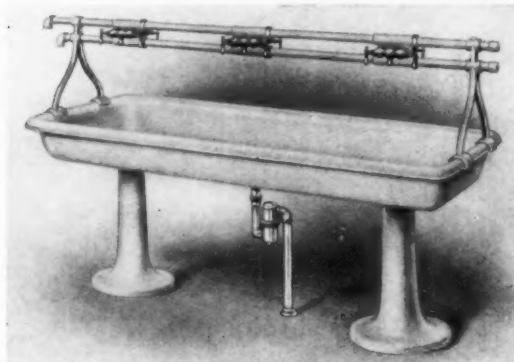
Section through Shower

threaded. Faucets are placed on 24-in. centers. A flat waste strainer at center carries off water at once. A drained soap tray, $3\frac{3}{4} \times 5\frac{3}{4}$ in., and $\frac{1}{2}$ in. deep, is secured to the supply pipe above each faucet.

Wash facilities should be in the ratio of one spigot

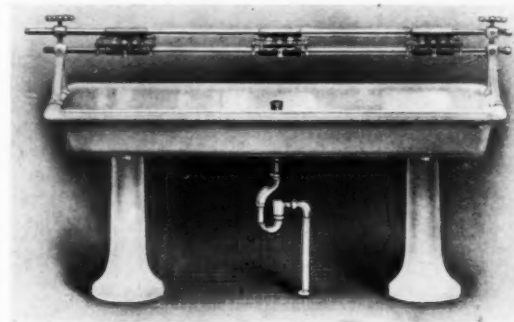
to every six men employed, based on the maximum number employed in any one shift.

Showers.—Personal comfort in the using of showers is more fully met where the same are in a room apart from lockers and wash sinks, where equal and adequate temperature may be maintained. Preferable arrangement suggests the allotment of an



A "Harvester" type of wash sink made by a leading manufacturer

area for each shower of no less than 4 x 4 ft., and separated from one another by a partition starting 18 in. above floor level and extending upward therefrom 5 ft. 6 in. Splashing upon one another is thus avoided, and "horse play" reduced to



A "Harvester" type of wash sink made by a leading manufacturer

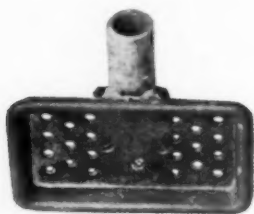
a minimum. Each compartment should have a mix valve, so located that the same may be controlled from a position removed from spray; a sponge rack, liquid soap container, and removable wood-slat floor mat complete equipment. An area sufficient for lockers, benches and dressing space should be afforded in shower room, thus avoiding exposure to colder temperature in general locker room.

THE AMERICAN ARCHITECT

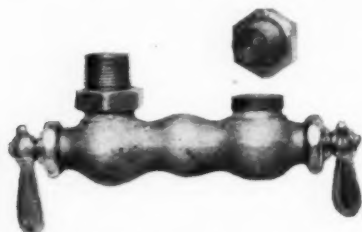
In dusty or hot trades a ratio of one shower to fifteen men, based on the maximum number employed in any one shift, is a proper apportionment.

Foot Tubs.—In foundries and other similar trades the presence of foot tubs would be a proper portion of equipment. The objectionable practice of using lavatory or other wash facilities would then be avoided.

Lockers.—Much difference of opinion exists as



The soap drain of gray cast iron, $3\frac{3}{4} \times 5\frac{3}{4}$ in., $\frac{1}{2}$ in. deep, 12 perforations on each end for drainage



Factory double mixing faucet of rough nickel-plated brass, with nickel-plated unions and nickel-plated handles, indicating "hot" and "cold," with steam regulators in unions



Galvanized malleable iron mixing faucet connection; right and left hand threaded, and so arranged that the hot water is at left hand side and cold water at right hand side, when double mixing faucets are attached to both sides of the fitting

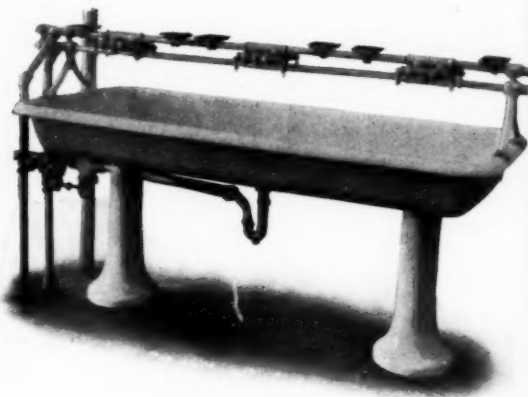
to this portion of equipment. It is desirable that lockers shall be raised at least 8 in. above the floor, to enable cleaning beneath same; further, the top should be sloped at least 45 deg. to prevent an accumulation of litter thereon.

All agree that the material shall be of sheet metal, and that sides, back, top and bottom shall be solid. As to the door, inasmuch as it cannot be made tight enough to be vermin proof, it therefore seems prac-

tical that perforated metal or small-mesh wire occupy a fair portion of the same, mainly to enable inspection without interference with contents.

As to dimensions, lockers have been observed from 12 in. square and 32 in. high all the way to 60 in. in height.

It is to the advantage of employers, in more ways than one, to have favorable comment made upon the appearance of employees. If we would be governed by average measurements, it will be determined that the common shoulder measurement of a coat is 18 in., and the length of an overcoat seldom less than 48 in.; therefore, we have two governing



A "Harvester" wash sink as installed at the Deering Works, with fittings shown in detailed illustrations

measurements. Summarizing, the locker should be 12 inches wide and 18 in. deep and 60 in. high. A hook placed at proper height to the right of the 18-in. sides of locker will accommodate a hat, and is wide enough for a coat hanger if desired.

The two-tier method of placing lockers is impractical and unsafe, inasmuch as garments on hooks of upper lockers can only be reached from stools or with sticks.

Of importance is the numbering of lockers and keeping record of their assignment, if for no other reason than that the clothes of an injured employee may be located without a shop-wide inquiry. The inspector will also find use for such record in determining the user of any unsanitary locker.

The most cleanly locker and wash room ever observed is one where the grouping in one room is sufficiently large to warrant the keeping of an attendant in the room constantly. Under this arrangement, all contents of lockers are reasonably safe without that lock found so annoying when a complete inspection is desired and no master lock system extant.

The Mechanical Equipment of a Modern Bank

THE Peoples Savings & Loan Association Building, which is so happily described in this issue by Thomas E. Tallmadge, is a consummation of perfection in artistic architectural design and utility. The capability of a building to be satisfactorily habitable is entirely distinct from its artistic qualities and depends on mechanical devices, except for daylight, illumination, and natural ventilation. The importance of the proper design and installation of these equipments is becoming more apparent and to find such a fine example in a small city bank is an indication of the progress being made in these matters.

The heating and ventilating plant of this building is entirely mechanical, the openings in the walls being sealed against the passage of air excepting the entrance doors to the banking room.

The heating is accomplished by direct radiation connected with a vapor system of steam heating. There is nothing of particular interest in this portion of the equipment, as the distribution of radiation presents no difficult problems to be solved. Its chief function is to heat a certain volume of air. The bulk of the contents being practically all in one large open room, a fairly uniform distribution of radiation is sufficient, with special attention to the entrance vestibule.

As the building is sealed against natural ventilation through the windows and doors, the means of providing properly conditioned air and its distribution and replacement was the problem to be solved.

The air is handled by three portions of the apparatus, each of importance. They consist of the main air supply, the recirculating system and the exhaust system.

The main air supply receives the fresh air through an intake which has 10 sq. ft. of net area. This intake adjoins another one which is 20 x 30 in. in size leading directly to the boiler room. These intakes open on the side and are louvred and screened as shown in the detail drawing. The fresh air is first passed through steam coils which temper the air, after which it is washed in an air washer and then passed through heating coils, where it is brought to the desired temperature. In summer the fresh air is simply washed and dried to the desired humidity and distributed in the same manner as the warmed air is in the winter.

This conditioned air passes through the fan into a 40 x 20 in. duct. From this duct is taken four 20 x 12 in. branches which enter the 20 x 20 in. ver-

tical ducts located at each corner of the public space in the banking room. On the four sides, and at the top of these four ducts are placed 10 x 20 in. grilles, through which the air passes to the main banking room. These vertical ducts are enclosed in marble and brick and on top is placed the ornamental indirect lighting bowls. From this system, fresh air is also supplied to the private office, the consultation room, the directors' room and the men's room. As these rooms are entirely enclosed and not open to the main banking space, this individual supply is necessary.

The recirculating system withdraws the air from the main banking room through eleven ducts which have registers on the two sides of the wall or screen enclosing the public space. These 4 x 16 in. registers are clearly shown in the illustrations.

The recirculating duct enters a chamber through a dampered 32 x 12 in. opening and into this same chamber enters the fresh air inlet through a 36 x 30 in. dampered opening. This chamber and the regulating dampers are clearly shown in the larger scale plan of the heating apparatus. By means of these dampers the proportion of fresh and recirculated air is regulated.

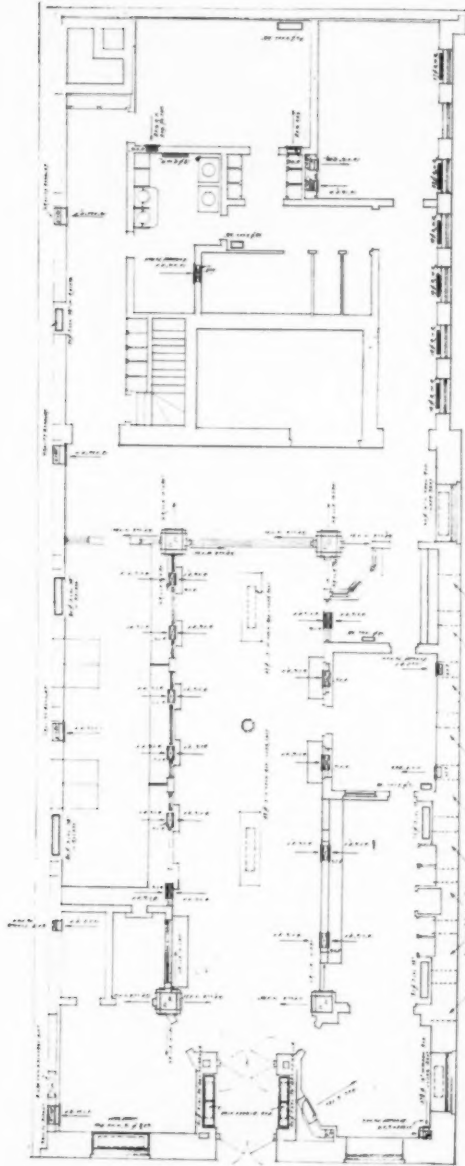
The exhaust system withdraws air from the private office, the consultation room, the directors' room, the men's room, the men's toilet and the women's toilet. This system is operated by a fan placed under the women's room and discharges through an 8 x 30 in. duct leading to the outside through the roof. In addition to this system there are four 6 x 20 in. gravity exhaust ducts in the east party wall, leading to the atmosphere.

An inspection of the four factors utilized in the heating and ventilation of this building will show the great flexibility of the whole plane and its ability to adjust itself satisfactorily to the varied climatic conditions of western Ohio.

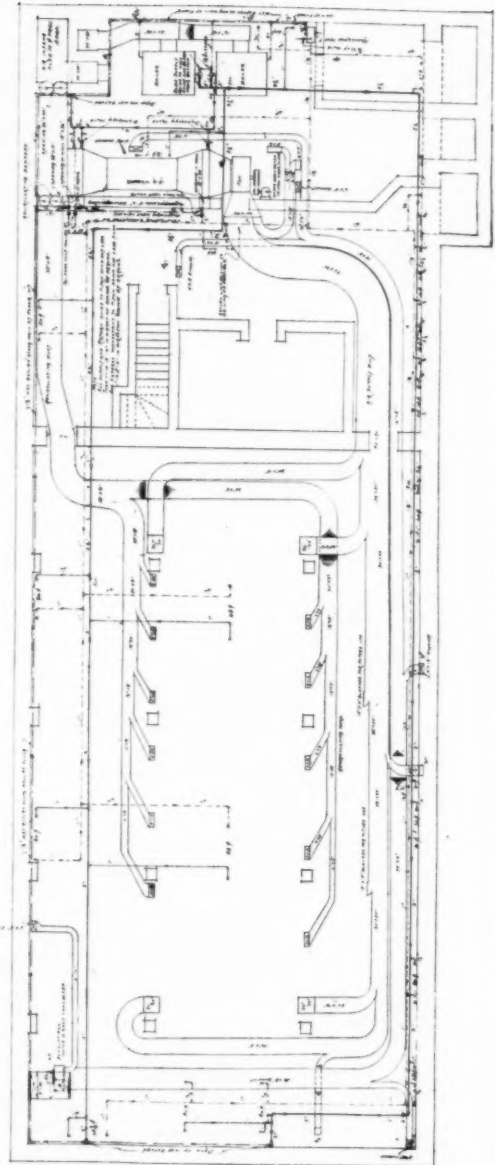
The air washer, heating coils and fan are placed on a platform 4 ft. 6 in. below the basement ceiling and the exhaust fan is installed in a like manner. Both fans are operated by motors, the exhaust fan motor being direct connected and the supply fan motor being belt connected. The ducts are suspended from the basement ceiling.

The steam or vapor for the direct radiation is supplied by two low pressure boilers which are connected to a 5 in. header, from which a 4½ and a 3 in. main each supplies steam to the heating coils and radiators. The mains are bled into the returns at the low points and the ceiling and low down returns unite into a 2 in. wet return to each boiler. The boilers can both be used at one time or either one cut out as may be desired.

First floor plan,
showing location
of direct radia-
tion, fresh air and
exhaust registers



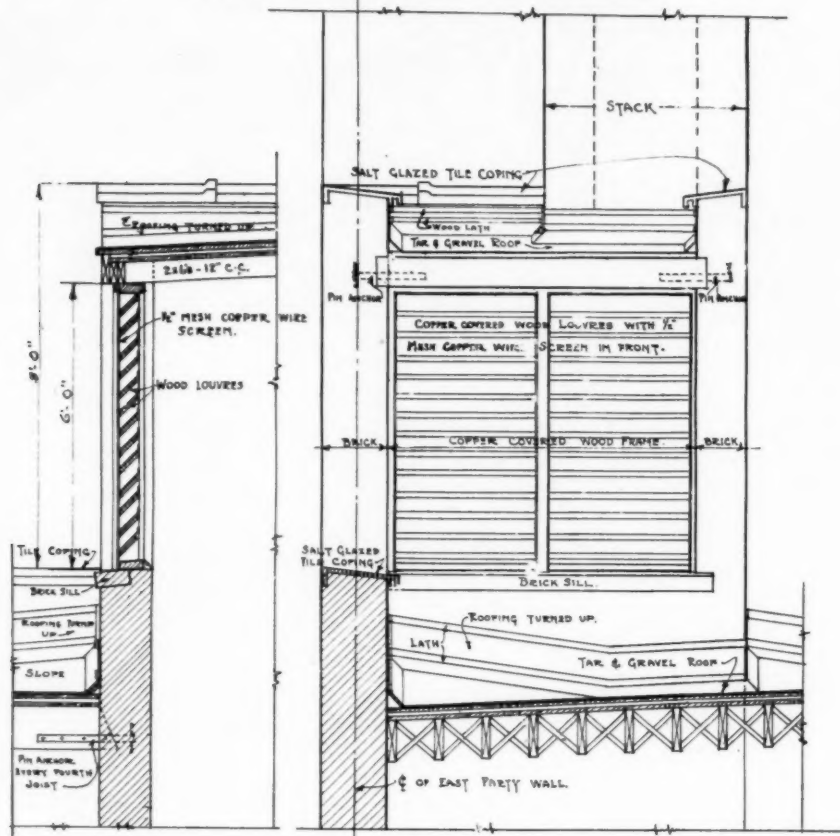
Basement plan,
showing the steam
heating mains and
returns, ventilating
ducts and mechan-
ical equipment.



THE PEOPLES SAVINGS & LOAN ASSOCIATION BUILDING OF SIDNEY, OHIO
LOUIS H. SULLIVAN, ARCHITECT



Plan of the mechanical equipment, including the boilers, air washers, heating coils, fan, ventilating ducts, fresh air intake and recirculating duct with regulating dampers.



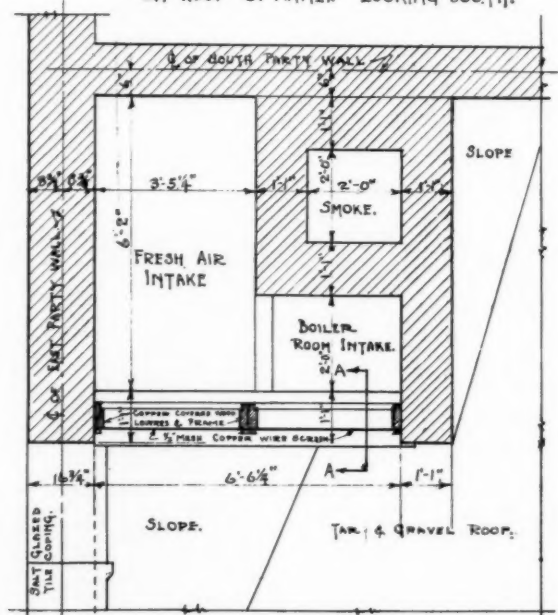
SECTION "AA"

ELEVATION OF FRESH AIR INTAKE
ON ROOF OF ANNEX LOOKING SOUTH.

THE PEOPLES SAV-
INGS & LOAN ASSO-
CIATION BUILDING OF
SIDNEY, OHIO

LOUIS H. SULLIVAN,
ARCHITECT

Details of construction about the
fresh air intakes



PLAN
SCALE $\frac{1}{2}'' = 1'-0''$

Industrial Information

In this Department there is published each week information as to the development of materials and methods, derived from reliable sources.

Lapidolith

For hardening concrete floors and preventing them from "dusting," Lapidolith is strongly advocated by a large number of well-known users. The manufacturers, L. Sonneborn Sons, Inc., 264 Pearl Street, New York, explain that this liquid will seep into both old and new concrete floors and unite with the Portland cement, forming a new crystalline material which fills the pores and holds the sand firmly in its bed. Architects may obtain free samples and testimonials by addressing L. Sonneborn Sons, Inc., Department 10, 264 Pearl Street, New York.

Soundproof Partitions

For schools, music conservatories, factories, hospitals and other structures where soundproof partitions are advantageous, a material which numerous signed testimonials very strongly endorse is Cabot's Quilt. Several illustrated booklets of considerable interest have been issued by the makers, Samuel Cabot, Inc., Boston, Mass., bearing on this product.

It is made of cured eel-grass. The unusual efficiency claimed for it is due to the character of the eel-grass, which has many valuable qualities not found in other plants. The blades are long and flat, like ribbons, and when matted as in quilt, they form an immense number of dead air spaces; round fibers found in other grasses cannot, it is maintained, produce these so effectively. The grass is tough and elastic, producing a resiliency in the quilt, which, together with the dead air spaces, breaks up the sound waves which are then absorbed and dissipated in the meshes. When inelastic materials are used, they are soon compressed into a solid by the weight resting upon them and lose whatever efficiency they originally possess. Eel-grass will not burn; it will only shrivel and char when actual flame is applied, but will not carry fire, and goes out as soon as the flame is withdrawn. Like all sea plants, eel-grass contains iodine which makes it repellent to insects and vermin.

Other uses of Cabot's quilt are numerous and include fireproofing and insulating.

This material is conveniently shipped in rolls easy to handle, and is made uniformly free from

lumps or bulges. The enclosing paper is of such strength as to be described almost untearable. Each roll contains a continuous sheet 84 feet long and 3 feet wide, or 252 square feet.

Diffuselite Blinds and Paints

Any advertiser's literature which traces the evolution of his present product through a logical analysis of the principles by which its development has been governed would be of interest. A leaflet, Bulletin No. 9, issued by the J. G. Wilson Corporation, daylight engineers, with offices at 8 West Fortieth Street, New York, is one of those papers which takes the reader into its confidence, and in an exposition of the phases of physics and the laws of psychology which control light and color, the adaptability of Diffuselite blinds and paints for hospital use and other public buildings is made clear.

The installation of Diffuselite blinds and the use of Diffuselite paints are claimed for the following reasons to be both sanitary and practical. Since they are not of fabric, the blinds, may, it is stated, be cleaned daily with soap and water without trouble or annoyance to the patient, and do not therefore catch and retain germs as fabric would. They are claimed to be simple in construction, practical in operation, adaptable for any style of window opening and to withstand the hardest usage. They are based on fundamental laws.

As for the paints, the manufacturers claim that analysis will show they contain nothing which could injure physically. In addition they can be washed, scrubbed or hosed without showing loss of life, and they retain their initial character of tone to the extent that a claim for permanency can be safely made.

In conclusion, the installation of Diffuselite blinds in combination with the application of Diffuselite paints are stated to reduce the cost of maintenance, since they save in upkeep, reduce the need for artificial lighting and make less frequent the necessity for repainting. Wherever used, they are believed to make possible clean and fresh conditions otherwise difficult to obtain.

It is recommended that architects write to the J. G. Wilson Corp. for a copy of this leaflet.

The "Matchless" Kitchen

The Edison-Electric Appliance Co., Inc., 147 Waverly Place, New York, is manufacturing what seems to be very desirable equipment in the line of electric ranges. In an interesting series of booklets illustrating various aspects of the "Matchless" kitchen, the numerous advantages for culinary purposes of electricity, and particularly of Edison appliances, are described as follows:

The use of electricity for heating and cooking improves the sanitary condition of the kitchen in so far as it does away with soot and dirt; no poisonous gases can contaminate the food or vitiate the air.

The cost and drudgery of handling coal, wood, oil, charcoal and ashes is entirely eliminated. The Edison electric equipment, the makers believe, is adapted for exacting service in these matters. Simplicity of operation seems to be a conspicuous feature. By the mere turn of a switch, the manufacturers claim to be able to produce the right degree of uniform heat just when and where it is wanted; and further, the easy control and perfect regulation of heat establishes dependable temperature conditions, so that timing the operation is all that is needed to obtain successful results.

The safety of the equipment is an important consideration. There are neither flames, explosive fuels nor dangerous fumes.

General Electric type ranges are available in many attractive designs, each of which is said to comprise a complete cooking equipment with all the parts conveniently arranged. The makers claim they have embodied the best features of standard range and stove construction with the added advantages of electric heat application and thorough insulation. The units are described as having a high grade finish which is durable and easily maintained, but may be readily replaced if necessary. With ordinary care, however, these ranges are claimed to last a lifetime. Each unit is readily removable for cleaning.

The General Electric type ranges are approved by the National Board of Fire Underwriters.

The Easy Pipe Pusher

Just to dig dirt out of the ground and throw it back into the hole, which is the essence of digging ditches, is a poor course of procedure for pipe laying if there is a better. Further, if that better way prevents the defacement of property incident to the customary method of laying pipe, if it saves men and time and effort, it would seem worthy of attention.

The Easy Mfg. Co., David City, Neb., has issued an illustrated booklet describing fully the efficacy of its specialty, the Easy Pipe Pusher, for such service. Some of the claims and statements made by the makers of this device are as follows:

The Easy Pipe Pusher can put in 30 to 150 feet of pipe, any depth, in an hour; it will do this under paving, floors, streams, and the most difficult places as quickly and inexpensively as out in the open. It is said to cost \$30 to \$50 to tear up and replace pavement across a 50-foot street; the Easy Pipe Pusher will do it for less than \$2.00. While some digging is necessary, about 75 to 85 per cent is saved on the total amount. A pipe can be pushed under a barn, pasture, dirt road, pavement or lawn without ditching, and both the consequent danger to people and live stock falling into the open ditch and traffic cessation are eliminated. The Easy Pipe Pusher will put conduit, cable or wire underground for electric and telephone purposes. It will place gas and water pipes. It will draw out old, damaged pipe and replace it with new. It is also stated that pipe so "pushed in" is less subject to rust than that which has been laid in a dug ditch.

The machine is described as 10 inches wide, 21 inches long, 12 inches high, 100 pounds total weight. All parts are malleable iron or cast steel. It rolls on a track so that friction is reduced to a minimum. It is worked on the cog drive principle and is said neither to slip, wedge nor bind. Double compound leverage and absence of appreciable friction combine to enable one man to push over four tons.

Further points of interest may be had by writing to the manufacturers for their booklet.