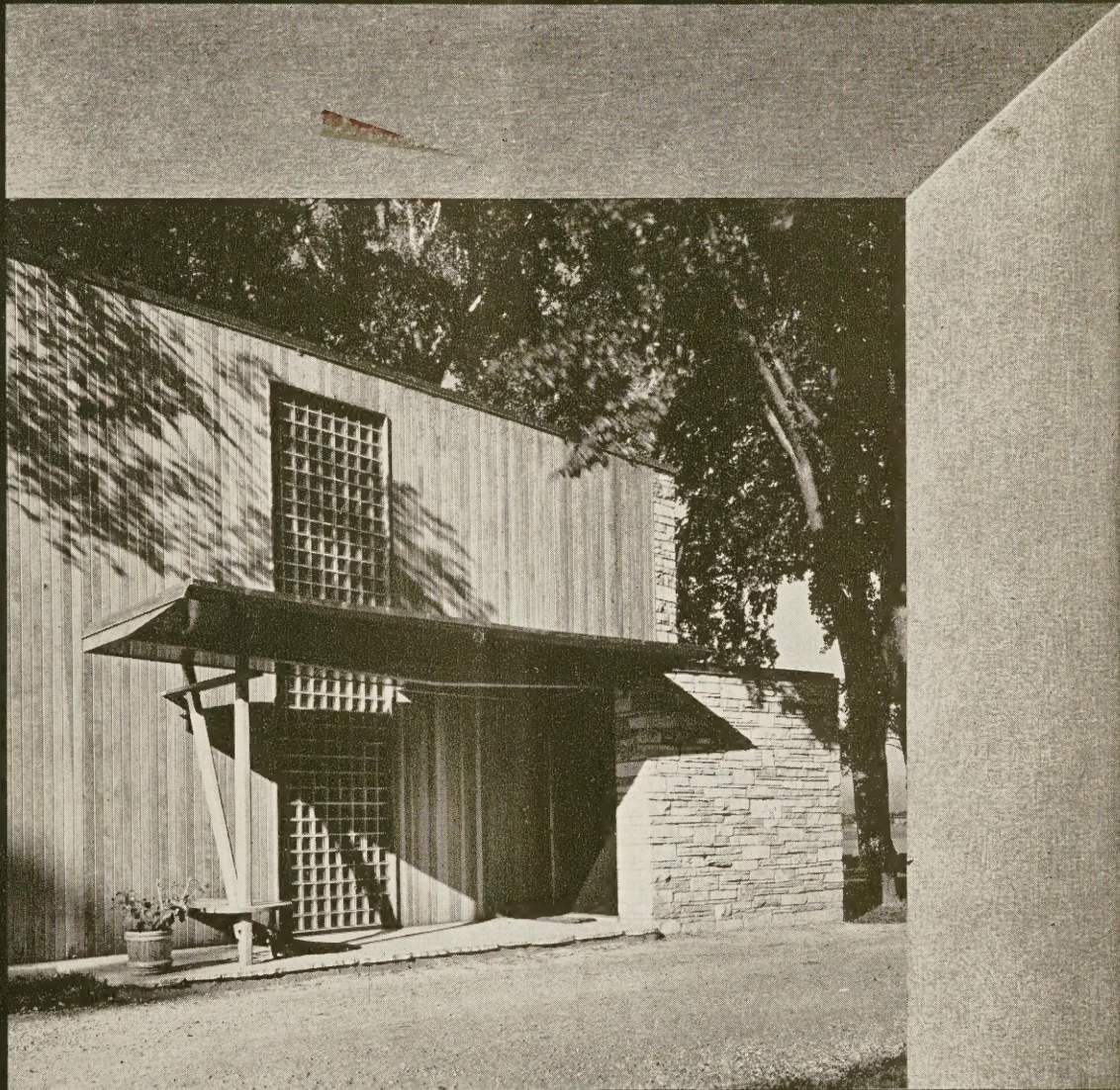


BEAUTIFUL HOMES

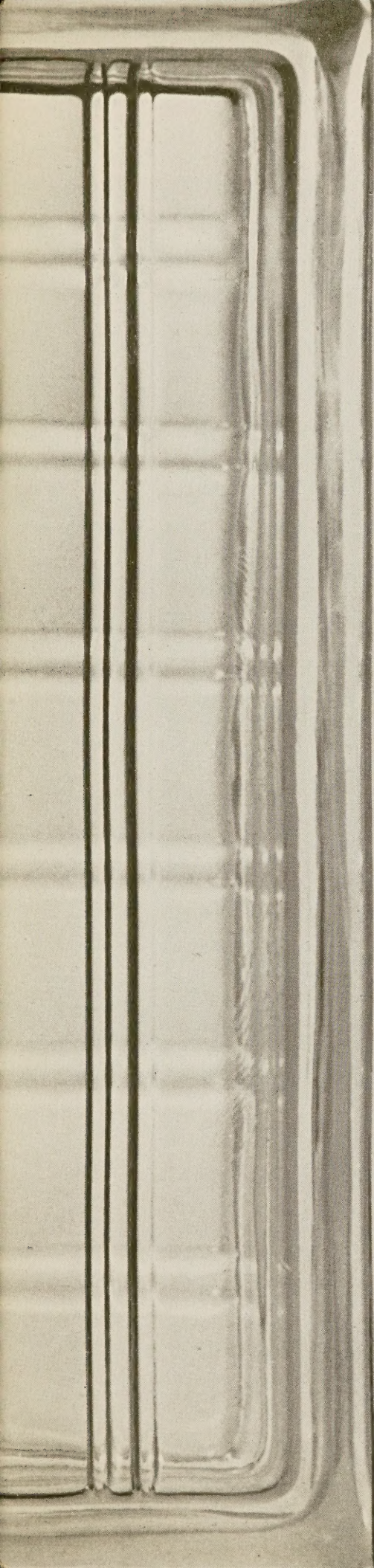


OWENS-ILLINOIS GLASS COMPANY

INSULUX PRODUCTS DIVISION • TOLEDO 1, OHIO

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INSULUX GLASS BLOCK

A PRODUCT OF THE
OWENS-ILLINOIS GLASS COMPANY

The purpose of this book is to show how glass block can be used in practical and interesting ways in all types and sizes of homes. The emphasis is on the small home, because it is preponderant in our national construction and because block can be used as successfully in it as in larger homes.

Insulux Glass Block (or brick as it is sometimes called) is pressed from molten glass. It is made at a very high temperature, almost 2,000 degrees by pressing two halves and fusing them together. An annealing process followed by application of a gritty mortar bond-coating completes the process.

The finished product is a hollow hermetically sealed unit containing a partial vacuum (as a result of being sealed at high temperatures). Insulux Glass Block is a product of the Owens-Illinois Glass Company, manufacturers of Duraglas, Glass containers of all kinds, Libbey Modern American Crystal, also Communication and Power Line Insulators. The plant where Insulux is made (from special glass researched and formulated especially for glass block) has been making pressed glass products for more than a half century.

INSULUX PRODUCTS DIVISION

OWENS-ILLINOIS GLASS COMPANY

TOLEDO 1, OHIO

BEAUTIFUL HOMES



INSULUX ADDS LIGHT AND INTEREST TO BEDROOM-SITTING ROOM—BY MICHAEL HARE, NEW YORK CITY



ROOF, GLASS BLOCK AND PLANTINGS ALL CONTRIBUTE TO THIS EXCELLENT DESIGN

THE MODEST HOME MAKES EXCELLENT USE OF GLASS BLOCK

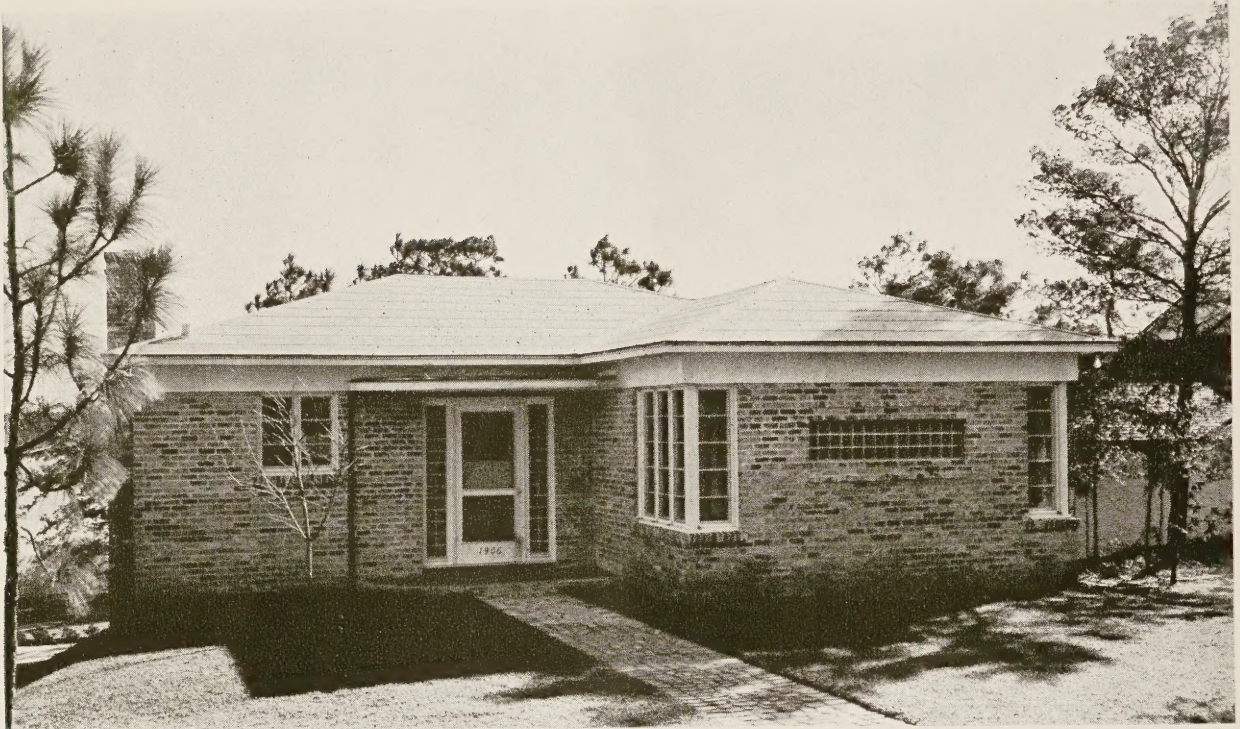
Experience gained in using block in thousands of homes has developed a familiarity with its use and has given architects, builders and owners a better understanding of its possibilities.

At first glass block was looked upon as a "modern" material; now through extensive use, it has found appropriate places in our most popular types of home and especially in the small and medium sized home.

The reason for this is simple. Glass block is not a decoration. It is a functional building material,

designed to do certain things better than other materials. Reduced to simplest terms, it provides in a four inch thickness a double glass wall that transmits light; obscures vision for privacy's sake; reduces heat loss more than 55 per cent as compared with a window; keeps out noise and dirt; is easy to clean, and adds to the cheerfulness and attractiveness of the home.

Each of these advantages find a place in the smallest home; and by varying the quantity of block used there is usually an opportunity to get a panel or two even in the very small home.



NEEDED LIGHT FOR LIVING ROOM AND ENTRANCE WITHOUT SACRIFICE OF PRIVACY



INSULUX IN ATTRACTIVE HOME DESIGNED BY PAUL LASZLO

PROGRESS THROUGH RESEARCH

The first introduction of hollow glass block to the public was in 1933 at A Century of Progress Exposition in Chicago, where the Owens-Illinois building was built of Insulux Glass Block.

Since then great progress has been made in improving glass block, in making it stronger, more serviceable and better looking. As it is made today, it is a proven product with great strength and durability. It is designed to be as permanent as the building itself.



AS INVITING, HOME-LIKE AND ATTRACTIVE AS ONE COULD WISH



GLASS BLOCK IS ATTRACTIVE, WITH STUCCO EXTERIOR TYPICAL OF THE SOUTH

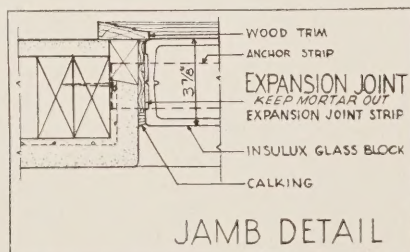
LARGER PANELS FOR LARGER HOUSES

Larger houses can quite logically use larger panels of glass block. Rooms are larger, and such houses typically offer somewhat wider latitude in working out desired architectural effects.

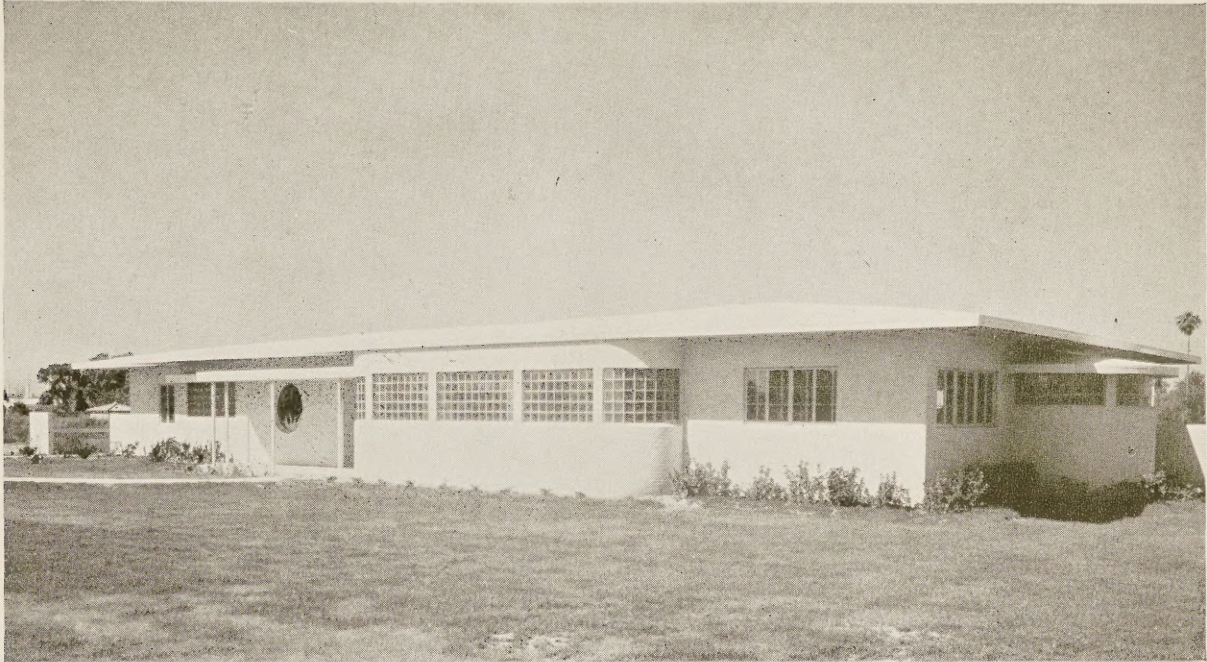
Note that the house above has made generous use of windows as well as glass block. This provides vision where it is wanted plus the advantages obtained with block. Above also is a large panel lighting a stairway. Good light on the stairs adds to comfort and safety; and usually windows lighting stairways are not used for ventilation. They are often inaccessible, difficult to curtain and screen. Block solves this problem; it also secures desirable privacy for

the bathroom at the head of the stairs. Glass block provides more than twice as much insulating value as windows and therefore can be used in larger areas without an undue amount of heat loss in winter.

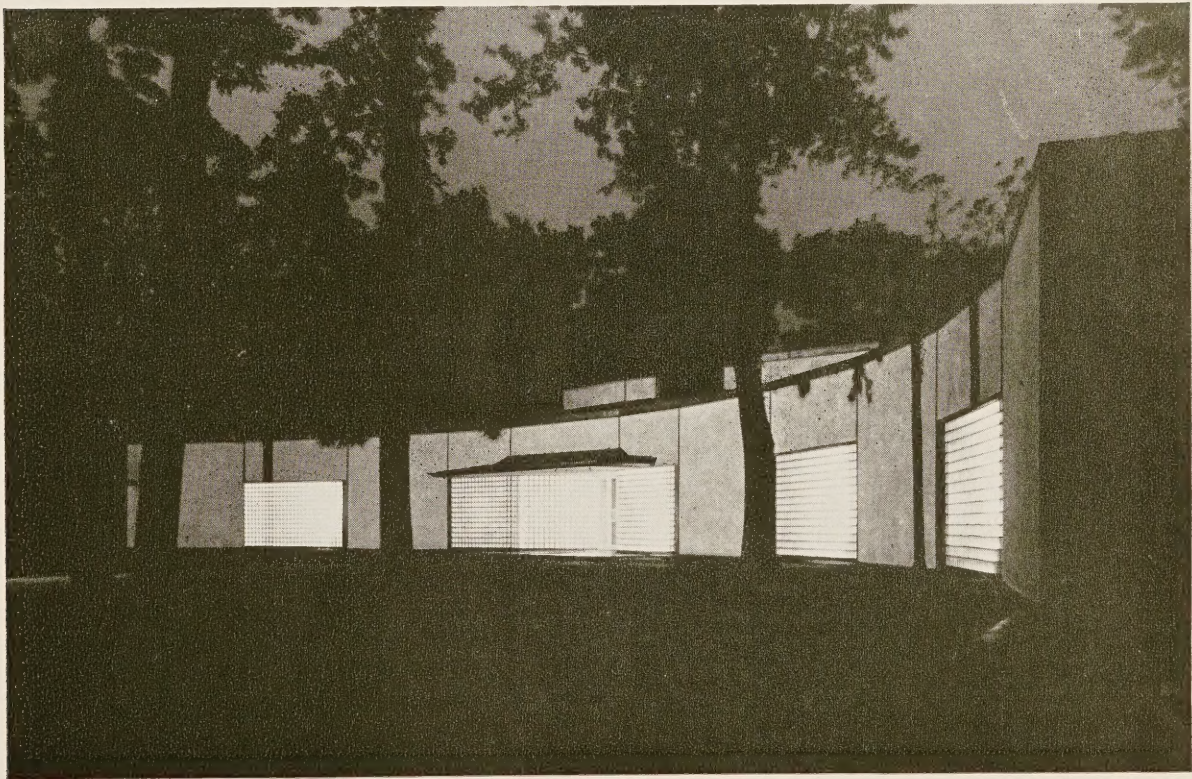
But summer heat must be considered also. Glass areas that transmit light from the sun also transmit heat from the sun. It is not practical to build a "glass house" because of too much light and too much direct heat from summer sunlight. However, your architect knows this relationship and will fit it to the needs of the house—as he has in the house at the right, larger panels with abundant shade.



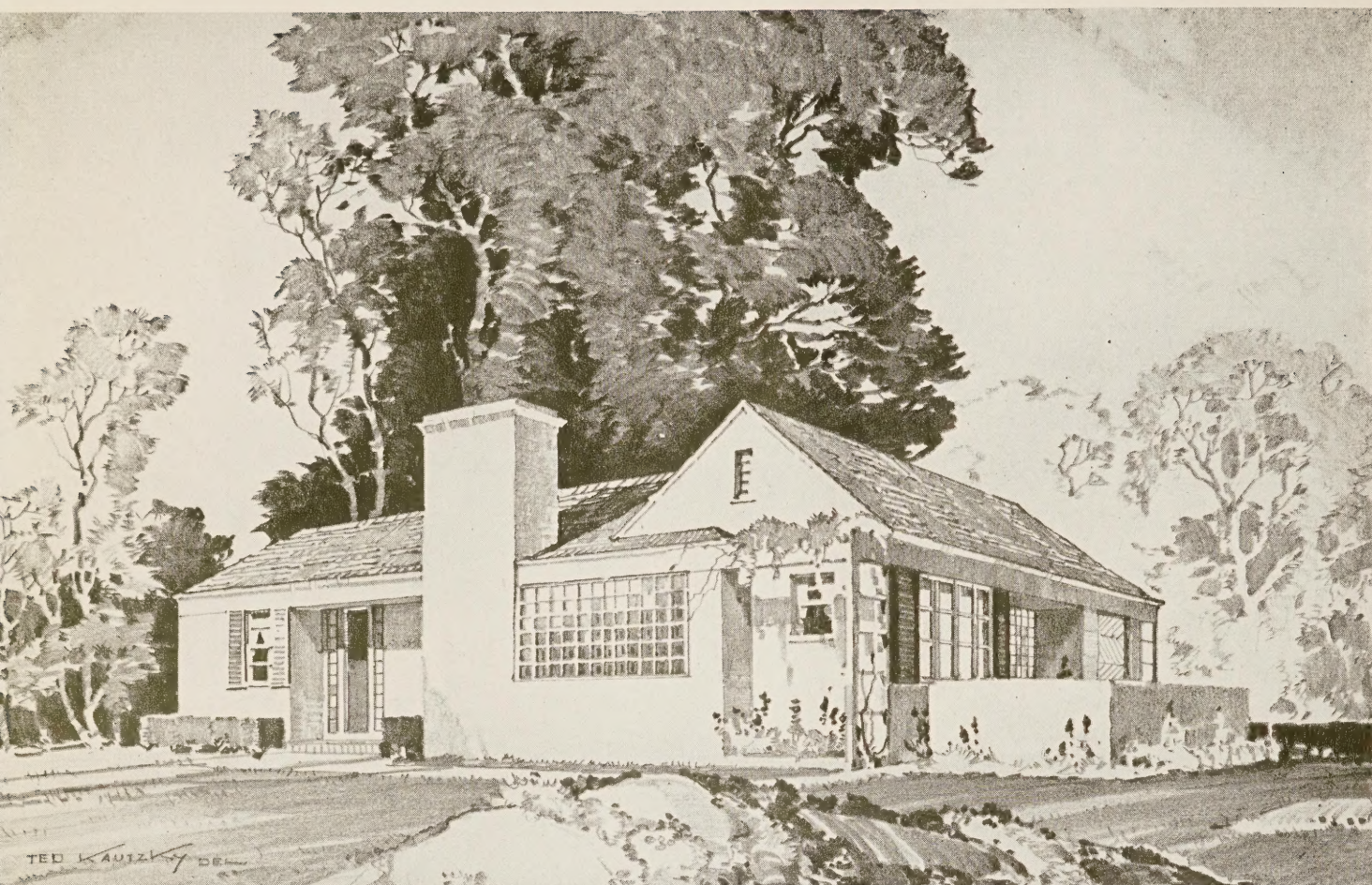
SEE PAGE 30 FOR DETAILS



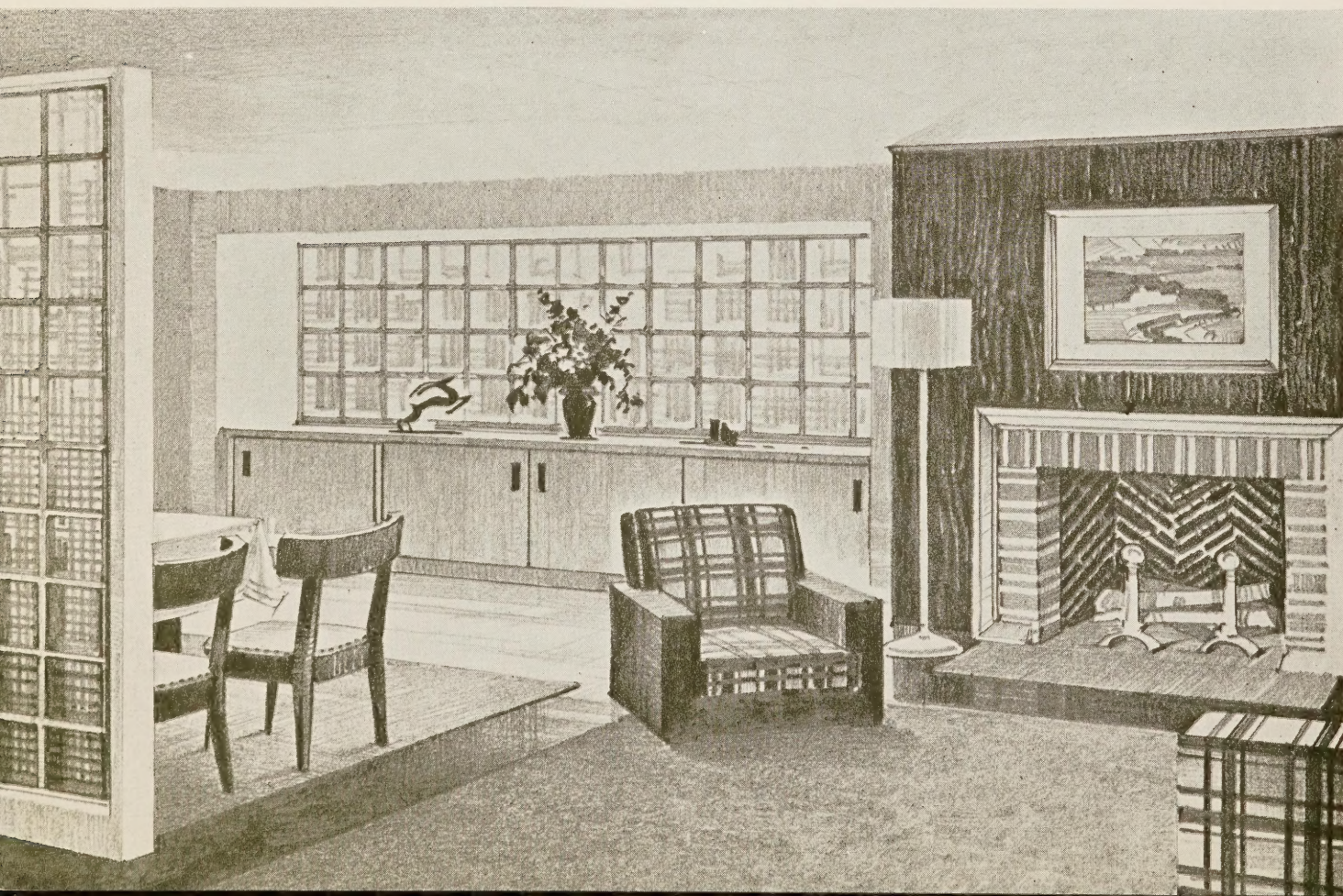
PANELS FIVE BLOCKS HIGH HELP TO CARRY OUT LONG HORIZONTAL LINES

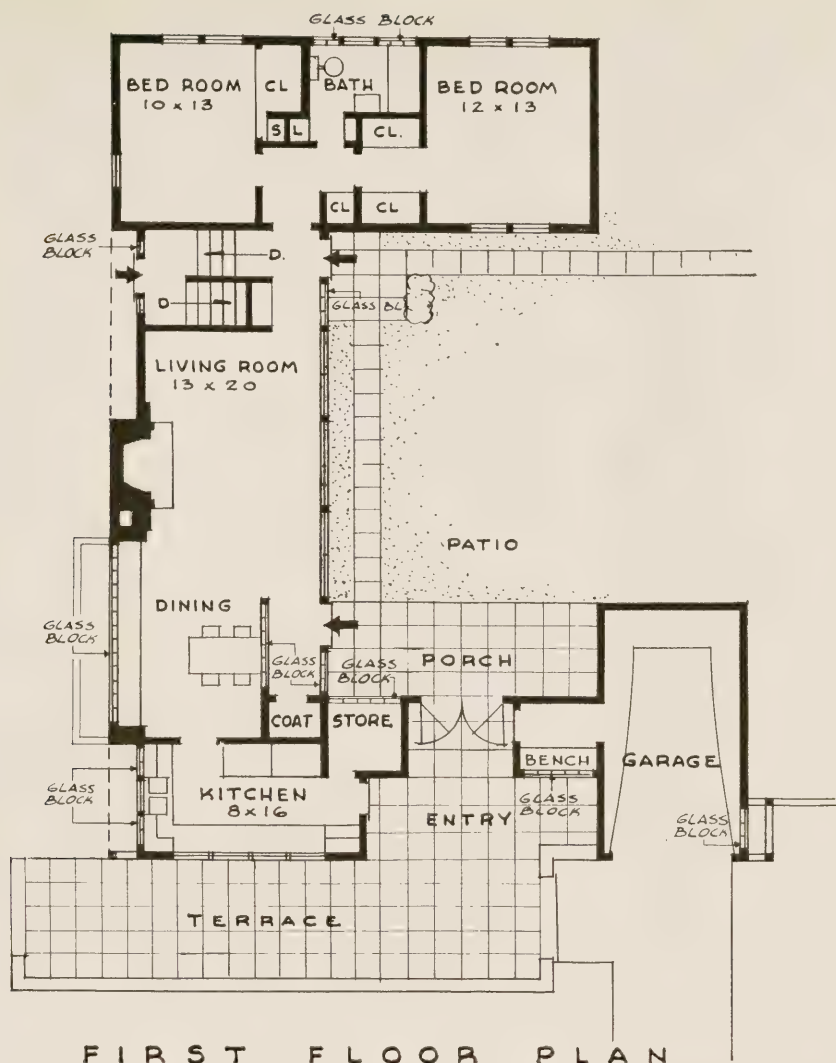


GLASS BLOCK ENTRANCE—LARGE PANELS ON EITHER SIDE—BY GEORGE FRED KECK

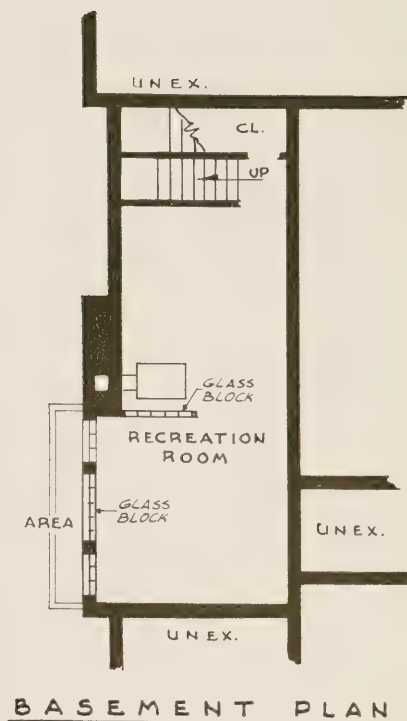


THE SAME HOUSE ABOVE AND BELOW WITH DIFFERENT TREATMENTS OF LARGE PANEL
 ANOTHER VARIATION COULD EXTEND PARTITION WITH DRAPERY CROSSING TO RIGHT





FIRST FLOOR PLAN



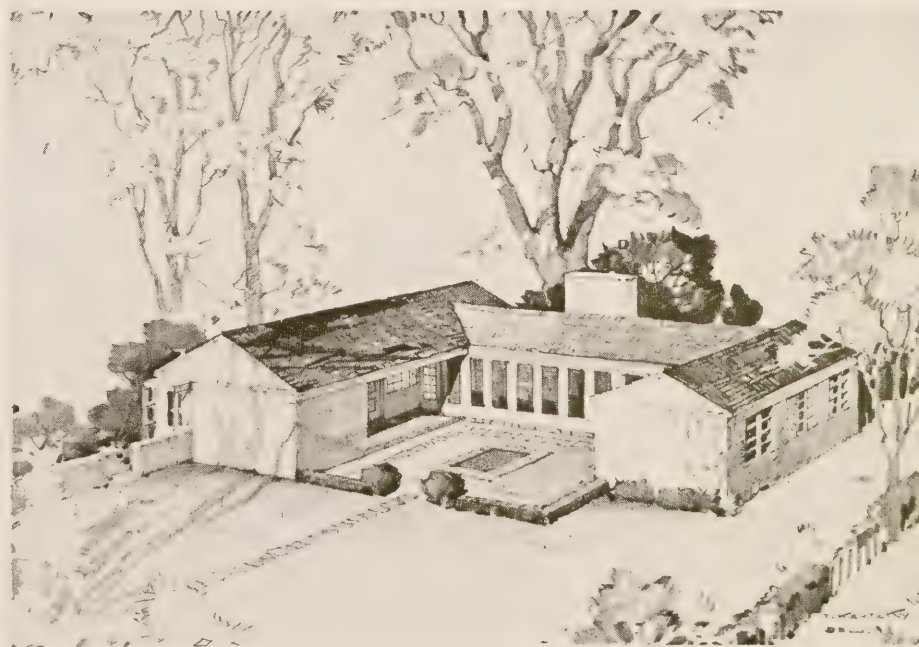
BASEMENT PLAN

GLASS BLOCK USED IN POST WAR DESIGN

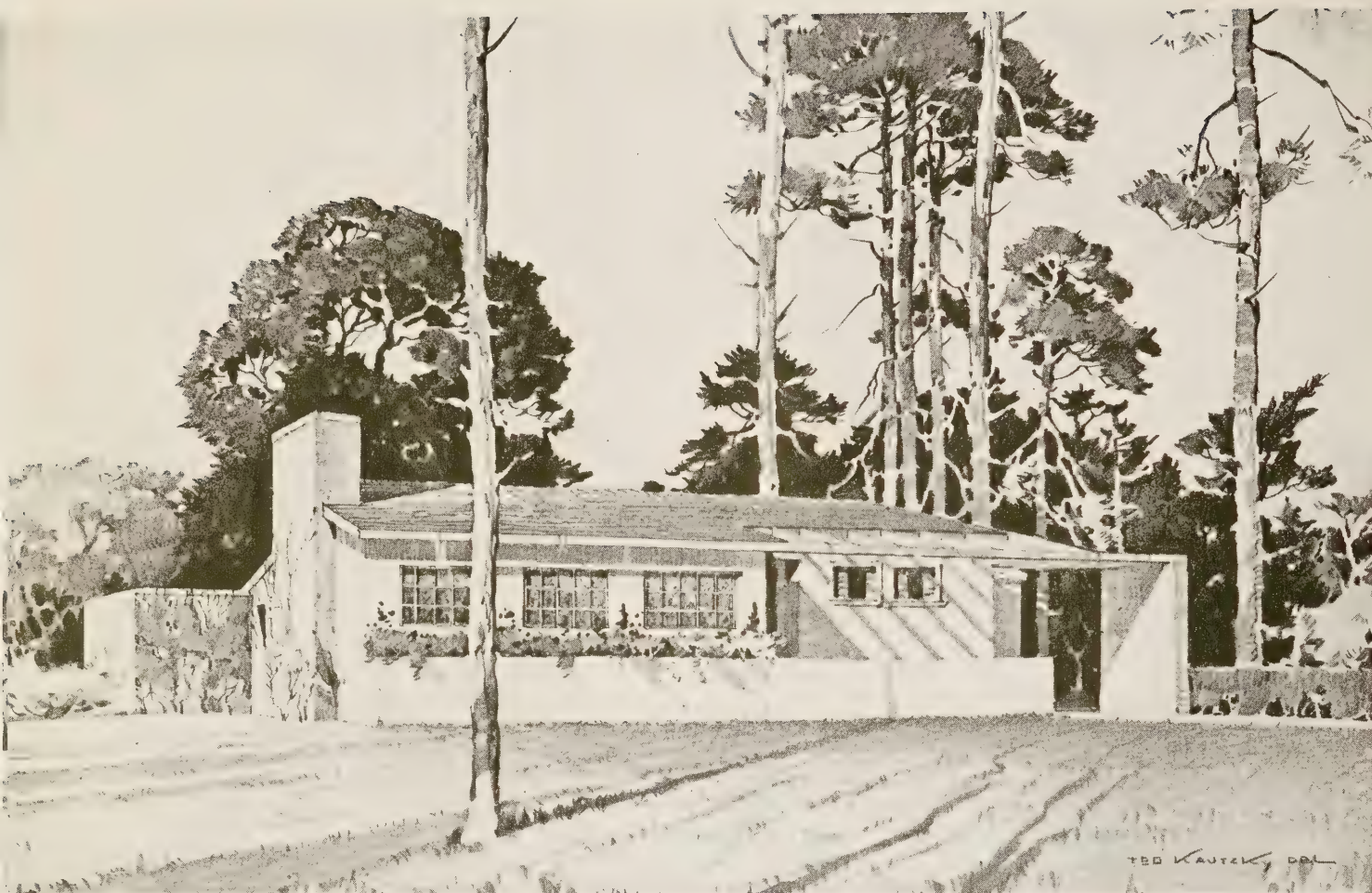
Because only the smallest type of house has been built during the war, most of the illustrations in this book show construction built just before the war, or construction completed about the time government restrictions were placed upon home building.

These two pages and the two following pages picture types of architecture and uses for glass block which we believe will be popular in the building period we are now entering.

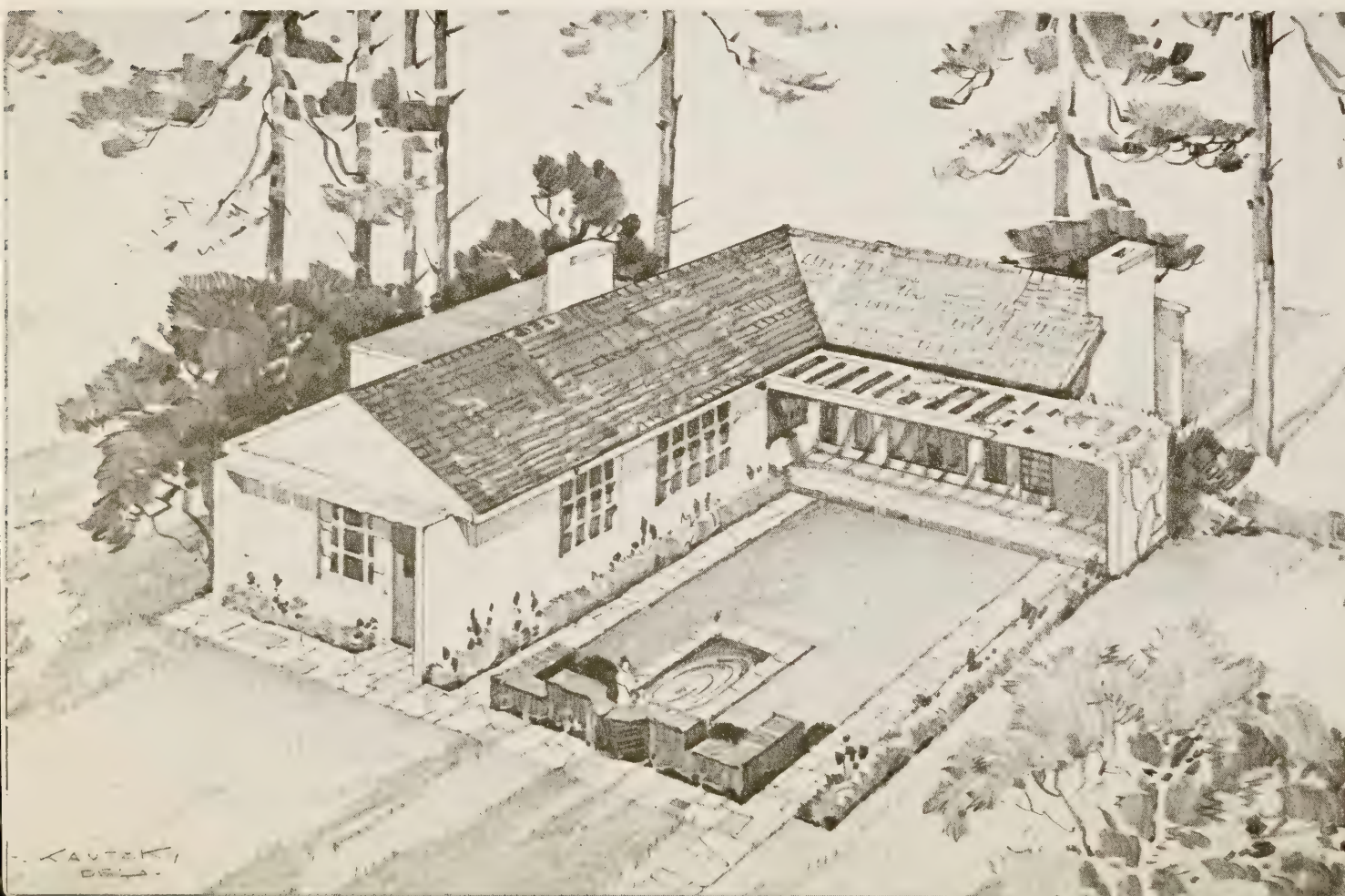
These designs are by Henry Otis Chapman and Randolph Evans. No plans are available. In fact there are slight differences in treatment between elevations and floor plans. It is hoped that these interesting designs in a popular size and price class will offer useful ideas and will be thought-provoking to you and to your architect.



MANY USES OF BLOCK ARE POSSIBLE IN THE FRIENDLY LIVABLE HOME. NOTE THE TWO BASEMENT USES.



THIS HOUSE BY RANDOLPH EVANS IS DESIGNED FOR TOMORROW'S COMFORT
BEAUTY AND LIVABILITY—OFFERS MANY SUGGESTIONS FOR YOUR HOME.





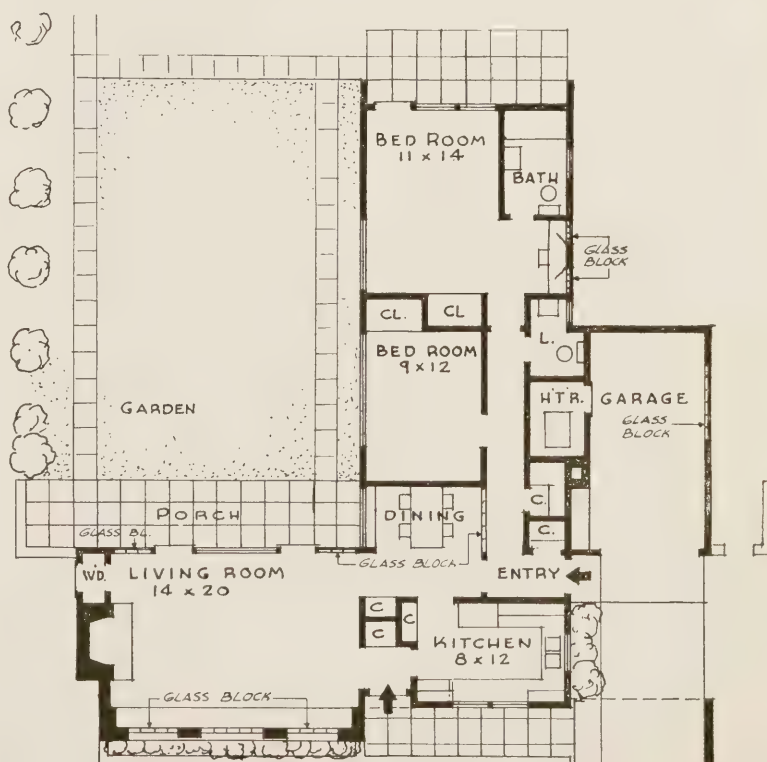
GLASS BLOCK GIVES AMPLE LIGHT—AND PRIVACY, TOO—FOR THIS DRESSING TABLE

GLASS BLOCK PRACTICAL AS WELL AS BEAUTIFUL

Increasingly glass block is being used for what it does—not just for appearance sake. That is why its popularity grew even during the war when building was restricted.

Glass block transmits light; provides more privacy than most types of glass. It resists heat loss in winter; loses less than half as much furnace heat as a single thickness of glass. It is easy to clean—looks clean. It has a definite place in outside fenestration and in inside partitions.

Notice how practically and how thoughtfully it has been used in these beautiful homes. Design by Randolph Evans.



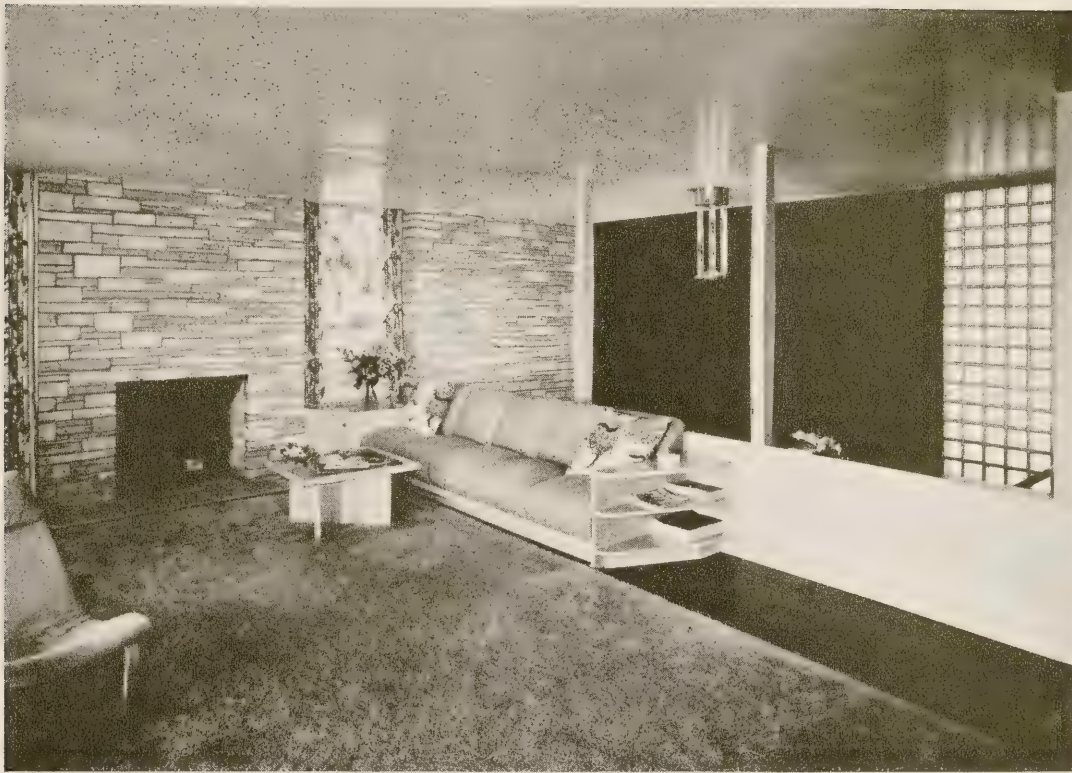
FLOOR PLAN



DINING ROOM IN MODERN BLOCK-LIGHTED HOME



ADDED INTEREST IN LIVING ROOM—A BIT OF PRIVACY FOR CORNER DESK

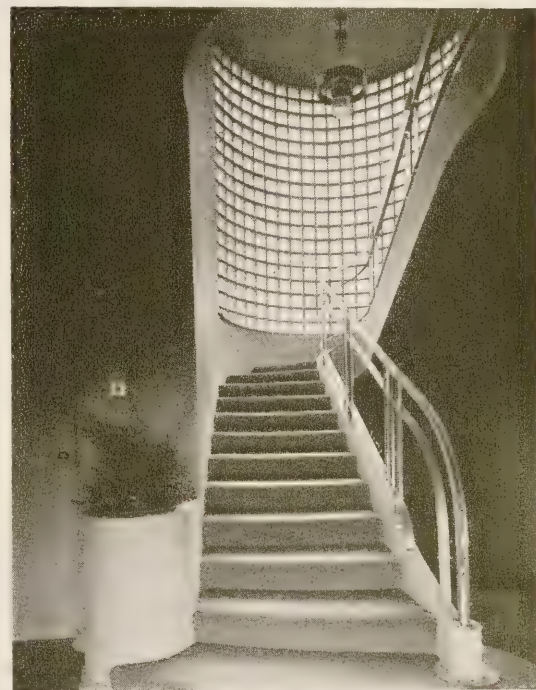


BLOCK PANEL LIGHTS STAIRWAY TO THIS SECOND FLOOR LIVING ROOM

ADVANCED DESIGN USES BLOCK

Homes with Large Glass Areas make
Glass Block Basic Part of Design

The purpose of this book is not only to show interesting uses of glass block but also to present fresh and interesting ideas on design and arrangement, and on the use of other materials. The pictures on these two pages were taken from some of our best contemporary design. The stairways on this page will no doubt prove interesting to many, as will the formal dining room at the top of the opposite page. The modern character of the design probably permits greater use of block than would be possible in a more conventional type home, yet the result is exceedingly homelike and livable. Glass block achieves distinction in the design of a home and provides many practical and decorative features to make it more interesting.



EVERY STEP PERFECTLY LIGHTED



CLOSET WELL LIGHTED WITH INSULUX ENDS NEEDLESS GROPING



AN INSULUX DOOR PANEL IS BOTH DECORATIVE AND PRACTICAL





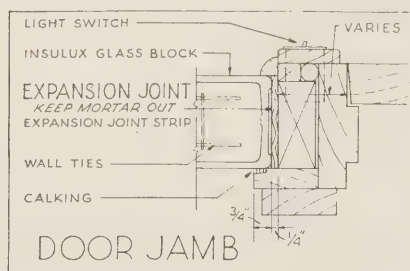
AN ENTRY BRIGHTENED AND MADE ATTRACTIVE WITH INSULUX

GLASS BLOCK "MAKES" THE SIMPLE DOORWAY

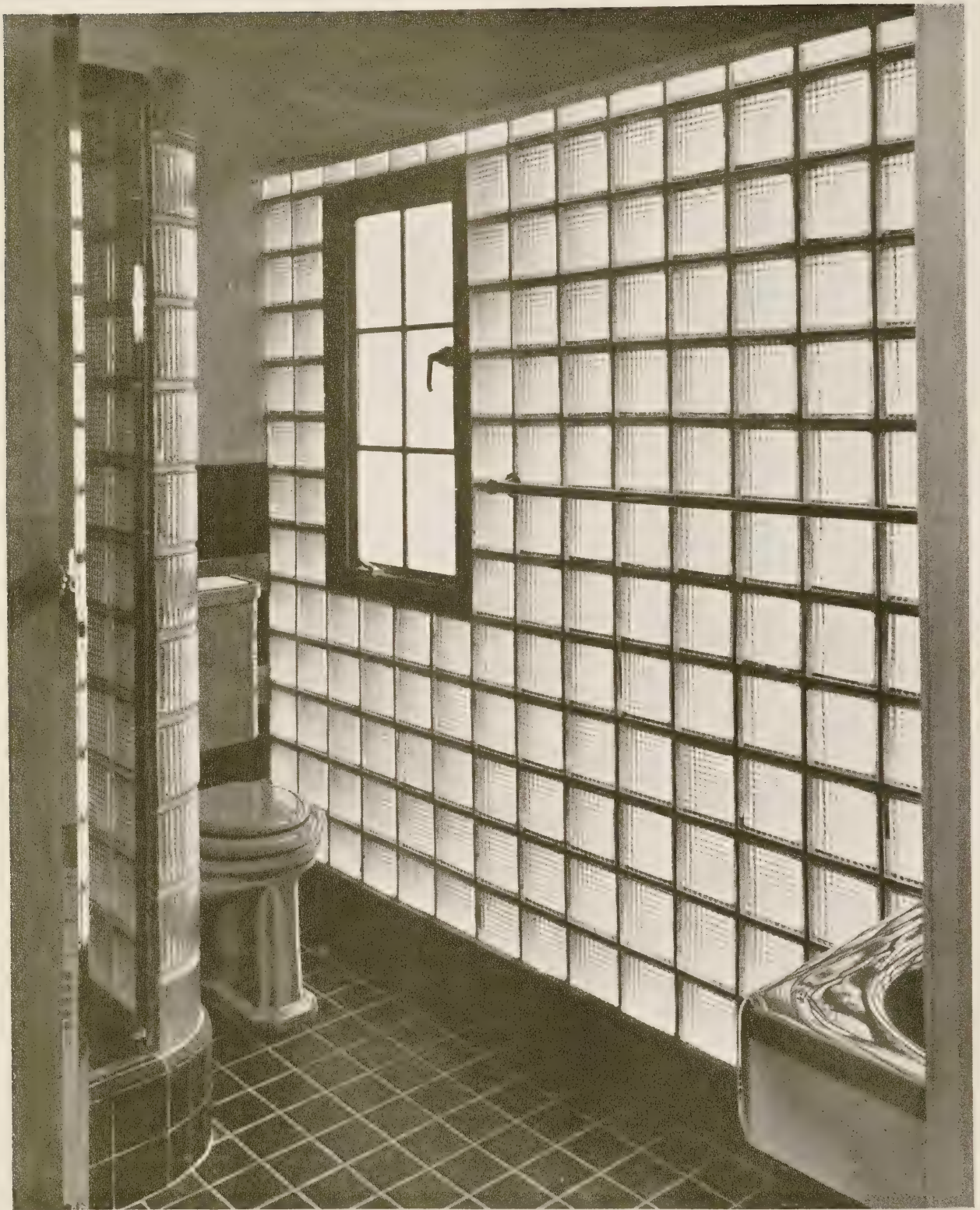
Cheerful from Inside — Attractive from Outside

Many prospective block users want to get the "feel" of how panels will look from both sides. Here are three sets of photographs showing in each case the same panel photographed inside and outside. The houses are typical of those being built in almost every community in the United States, yet in their arrangement and use of block each is quite distinctive, suggesting the application of this use to a great many types of architecture. Each panel brings cheerful daylight into the entrance way and still assures privacy. Each be-

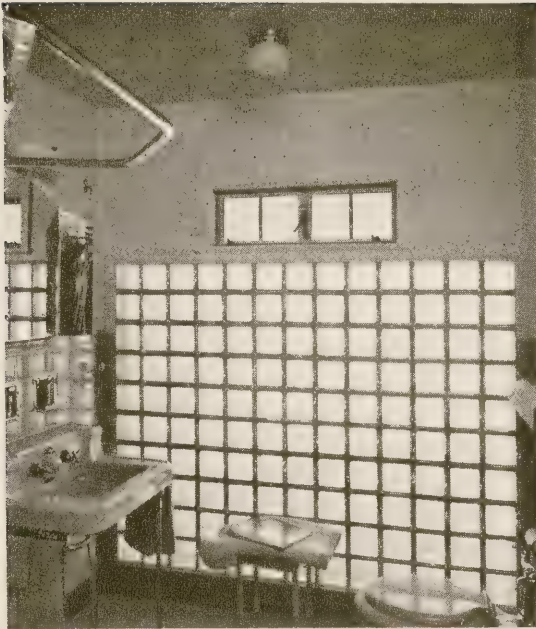
comes an interesting and unobtrusive part of the design of the home, and, if one more photograph could be shown, a night photograph, it would be apparent how inviting and cheerful such a panel is at night, casting a soft, diffused glow from the interior lighting. Small panels of block are not expensive. The total amount of block used in the panel on page 14, above, sells anywhere in the United States for less than \$30, and the total amount of block used in the panel below sells anywhere in the United States for less than \$20.



SEE PAGE 30 FOR DETAILS



INSULUX PANELS FOR WALL AND SHOWER ASSURE BRIGHT, EASY-TO-CLEAN BATHROOMS



PRIVACY WITH ABUNDANT LIGHT



AN EASILY CLEANED BATH PANEL



MODERN ALL-GLASS SHOWER STALL

PRIVACY — CLEANLINESS

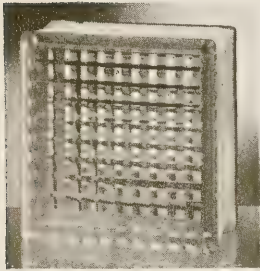
Bathrooms, showers and powder rooms offer some of the most practical uses of glass block. All need light and privacy to a greater degree than they get in many house designs.

Another desirable feature is ease of cleaning and in northern latitudes, relative freedom from sweating and excessive transmission of heat in winter. The latter is important to comfort in northern climates.

Almost everyone has experienced the discomfort of a cold bathroom in mid-winter. A glass block panel of given area lets less than half as much heat escape through it as a window of the same size—actually only 43 per cent of the heat that is lost through the glass of a window is lost through a block panel of the same size.

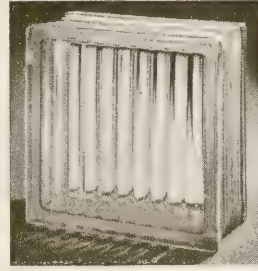
A block panel therefore helps to keep the temperature of the bathroom up in the winter. Also because the interior surface of the glass block is warmer than the interior surface of a window, there is less “sweating” and less condensation on the panel.

DESIGNS, SIZES AND DESCRIPTION OF FOR LIGHT TRANSMISSION, DECORATION AND



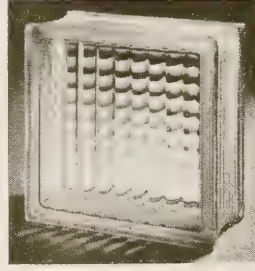
DESIGN No. 2

Design—Convex ribs carried vertically on both exterior faces and horizontally on both of the interior faces. Width of ribs of 200 series— $\frac{1}{2}$ "; 300 series— $\frac{11}{16}$ ".



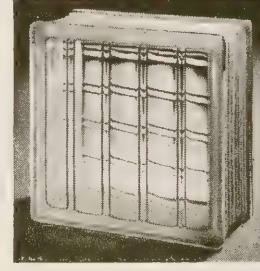
DESIGN No. 7

Design—Convex ribs carried vertically on both of the interior faces. Both of the exterior faces are smooth. Width of the ribs in the 200 series— $\frac{1}{2}$ "; 300 series— $\frac{11}{16}$ "; 400 series—1".



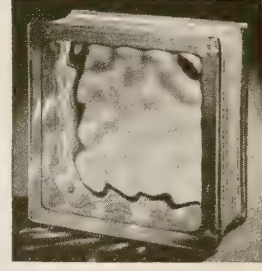
DESIGN No. 16

Design—Convex ribs carried vertically on one interior face and horizontally on the other. Exterior faces smooth. Width of ribs of the 200 series— $\frac{1}{2}$ "; 300 series— $\frac{11}{16}$ "; 400 series—1".



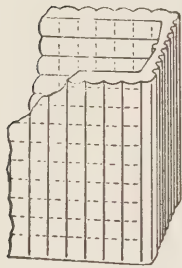
DESIGN No. 17

Design—Concave ribs on both interior faces—vertical on one, horizontal on other. Both exterior faces smooth. Width of ribs of 200 series— $\frac{1}{16}$ "; 300 series— $\frac{1}{2}$ "; 400 series— $\frac{15}{8}$ ".

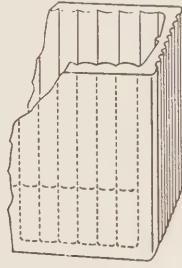


DESIGN No. 30

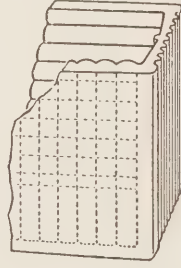
Design—Both exterior faces smooth. Interior design suggests a repeating quarter circular effect, forming continuous concentric circles in the panel.



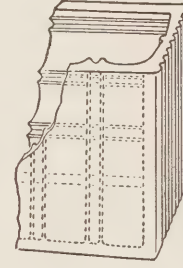
202



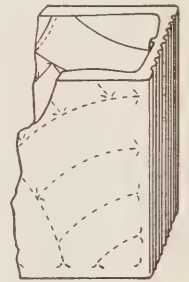
207



216



217



230

302

307

316

317

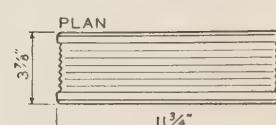
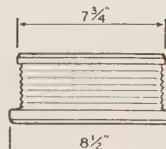
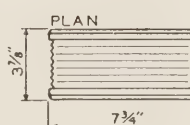
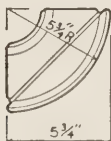
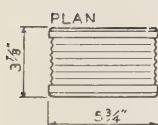
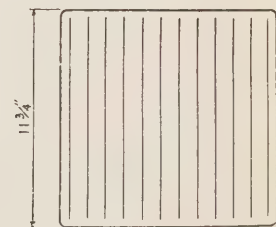
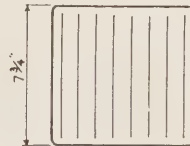
330

407

416

417

430



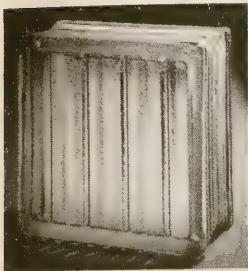
OWENS-ILLINOIS

INSULUX

GLASS BLOCK

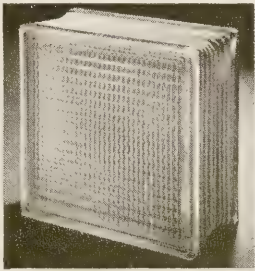
INSULATION

RADIAL AND CORNER BLOCKS



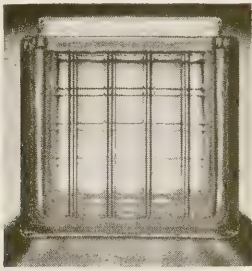
DESIGN No. 40

Design—Both exterior faces have 13/16" o-gee ribs vertically. Both interior faces have etched stippled surfaces with vertical ribs spaced 1 5/8" on center.



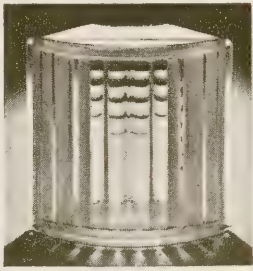
DESIGN No. 50
(For bright sun exposures)

Design—Both exterior faces have 3/8" wave ribs horizontally. Both interior faces have 1/4" special vertical ribs with concave sides.



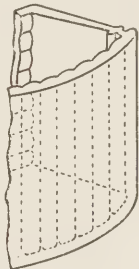
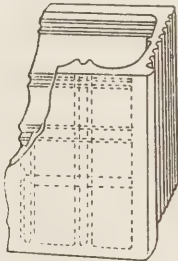
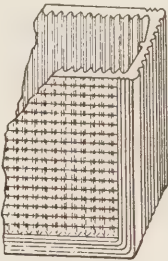
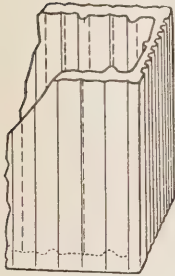
RADIAL
(For curved panels)

Radial block can be laid to varying radii from 2'-5" and up through variation in mortar joint. Width of long face—8 1/2", of short face—7 3/4". Available only in design numbers listed below.



CORNER
(For corners)

Block to be used with No. 200 and 300 series. Height—5 3/4" for 200 series and 7 3/4" for 300 series. Corners conform with design of standard block as noted by number. Radius—5 3/4" for both 200 and 300 series block.



SERIES AND
SIZE OF
REGULAR
BLOCKS

240	}	200 5 3/4 x 5 3/4 x 3 7/8	}	216-C	217-C
340		300 7 3/4 x 7 3/4 x 3 7/8		230-C	240-C
140		400 11 3/4 x 11 3/4 x 3 7/8		316-R	317-C
				317-R	340-C
				350-R	350-C
				Use Two 200 Series Corner Blocks	

THREE STANDARD BLOCK SIZES

Insulux glass blocks are made in three standard sizes, nominally 6 x 6, 8 x 8 and 12 x 12 inches. Actually each of these dimensions is a quarter of an inch less to allow for a quarter inch mortar joint. All blocks, regardless of size have a standard thickness of 3 7/8 inches.

Several different face designs are made in each of these three sizes. And it is the purpose of these

two pages to show what designs are made in each of the three sizes, and in addition to show in the drawings the rib structure of each design. In selecting a block you can get an idea of the design from the small photographs at the top of the page, or from the larger photographs on the back cover of this book. Additional information is provided in the column directly underneath each photograph on these two pages.

BEAUTIFUL HOMES



MORE KITCHEN LIGHT WITH INSULUX



A BRIGHT KITCHEN COUNTER TOP



TYPICAL USE OF CORNER BLOCK



INCREASED LIGHT WITH PRIVACY



WOMEN APPRECIATE THIS WELL LIGHTED WORKING AREA



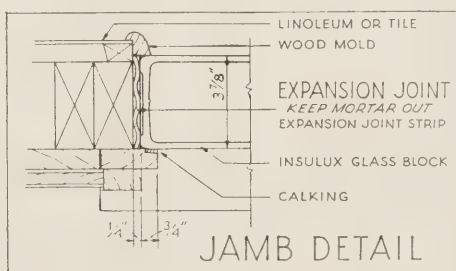
NEEDED DAYLIGHT SECURED HERE IN SPITE OF TOO-CLOSE ADJACENT STRUCTURE

LIGHT IN THE KITCHEN WHERE IT IS NEEDED MOST

Usually the kitchen faces east or west and therefore at the beginning or end of the day has a minimum of natural daylight. Block panels offer a way to get more light. This can be accomplished with a horizontal band of block just above table level, either a few block or many (depending sometimes on whether or not there is a building directly opposite) or it can be accomplished with block panels used in combination with sash, block panels on either side with a window in the center, or a panel and a window side by side.

To shut off the view from one side of the kitchen, sometimes desirable because of nearby buildings or a noisy street, glass block can usually be used to good advantage. More and more attention is being given to the layout and design of the kitchen.

Some architects are giving it more room. This it seems to deserve because it is becoming less the workshop of the servant and more the center of the whole family activity—a place to plan and prepare meals, to use modern labor saving devices, even an informal and cozy dining room.



SEE PAGE 30 FOR DETAILS



INSULUX PARTITIONS LEND AN AIR OF SPACIOUSNESS TO ANY INTERIOR



GLISTENING PANELS EASY TO CLEAN

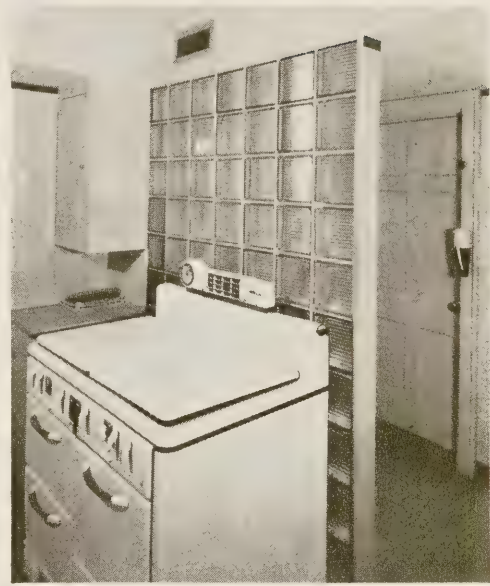
BEAUTIFUL LIGHT TRANSMITTING PARTITIONS OF GLASS BLOCK

The rapidly increasing use of glass block for partitions in offices has pointed out interesting possibilities for use in the home. In dividing screens and partitions, the advantage of a light transmitting material can oftentimes contribute much to the final effect.

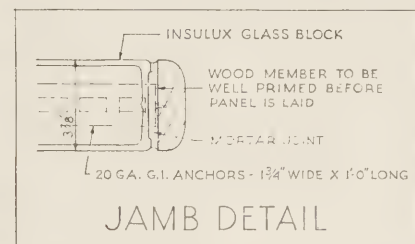
If privacy is wanted, Insulux partitions can still be used. They obscure vision and have an effectiveness in stopping sound equal to that of the usual partitions used in offices and hotels where noise transmission is carefully guarded against. Insulux is not heavy. Partitions weight about 16 or 17 pounds to the square foot.



INSULUX BLOCK PANELS DO MUCH TO "SET OFF" A ROOM



PANEL BETWEEN HALL AND KITCHEN



LARGER BLOCK POPULAR IN PARTITIONS

All of the block shown on these two pages except the dining room panels, top left hand page and bottom right, are erected of 8x8 block. These are respectively 6-inch and 12-inch block.

Increasingly, there is a preference for the larger block, either the 8 x 8 or the 12 x 12. In some cases, it is easier because of ceiling heights to work out panel arrangements with the smaller sizes. However where the larger block are desired, it is usually possible to work out a base treatment that will bring the top course of block up to the desired height.



SMART PARTITION DISTRIBUTES LIGHT



MORE LIGHT—MORE PRIVACY—LESS HEAT LOSS IN WINTER

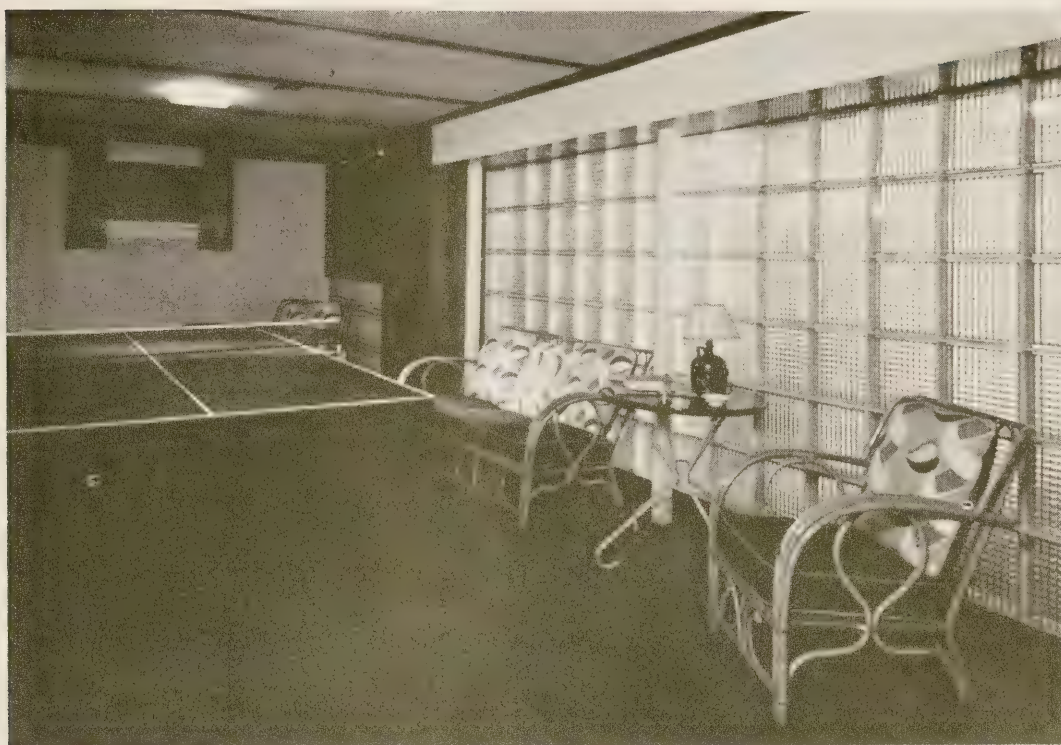
LIGHT AND PRIVACY IN BEDROOM AND CLOSET

What a difference there is in bedrooms. One can be almost a gold-fish bowl, another well lighted and still private. So much has to do with the placement of windows and the arrangement of the room. Glass block panels can help to get the right result. At a glance one can see that the room above has all of the daylight it needs, yet more than the usual amount of privacy. If there is anything that distinguishes the thoughtfully designed house it is the livability of each individual room, whether bedroom, dining room, living room or library.

In the closet either a few blocks or a ceiling high panel can eliminate the darkness that harbors moths. No pawing over freshly pressed clothing or delicate garments to find the one you are seeking. With light through block you can see.



CLOSET WITH PLENTY OF LIGHT AND AIR



GAME ROOM SEPARATED FROM SERVICE ROOMS IN BASEMENT



GLASS BLOCKS ARE STURDY—DURABLE

EXTRA ROOM WITH MORE LIGHT IN THE BASEMENT

The basement is typically the most slighted part of the house, in design and utilization. Yet it represents the cheapest cubage in the house—the least cost per cubic foot of usable space.

Glass block has tremendous value in working out the best use of the basement. It transmits light, where light is at a premium. It is impervious to moisture where moisture is most apt to be present. It is easy to clean. When set up in mortar with tight joints it forms a tight closure to separate a laundry room from a play room or a furnace room.

It can be used in panels from floor to ceiling, or in small panels to bring light through interior partitions. It is not injured by splashing that is apt to go with basement cleaning.



INSULUX IN STAIRWELL AND IN COMBINATION WITH SASH ADDS LIGHT, CUTS HEAT LOSS



INSULUX WELL ADAPTED TO CURVED DESIGN

UP-TO-DATE APARTMENTS ATTRACT TENANTS WITH INSULUX GLASS BLOCK

On this and the following page are a few interesting applications of glass block to apartment construction. The lobby and entrance is of course a natural use for glass block. So are stairwells, where good light is important and where block panels can be used effectively as part of an attractive design.

But even more important are the functional uses of block. In air-conditioned apartments block panels cut down the load on air conditioning equipment. They also aid the architect in working out his plan to give each apartment maximum light and still maximum privacy.

Many apartments have curved outer walls or bays because these are relatively easy to build of brick. They are equally easy to light with curved block panels. Block panels also conserve fuel.



EXTRA LIGHT WITH PRIVACY IN THIS BEAUTIFUL WASHINGTON APARTMENT



INSULUX GLASS BLOCK LENDS A MODERN SMARTNESS TO THIS APARTMENT LOBBY



DECORATIVE COLUMNS OF INSULUX BECOME SHINING PILLARS OF LIGHT AT NIGHT

INSULUX GLASS BLOCK SET IN PREFABRICATED WOOD STRIPS

FOR INTERIOR PARTITIONS ONLY

The standard method of erecting Insulux Glass Block is to build permanent panels set in mortar. But architects and home owners have asked for some simple way to erect glass block where the permanence of mortar is not needed—in fact a way to erect glass block panels so they may be taken down and moved or the block readily re-used.

The answer is the Insulux “Set-in-Wood” system pictured at the right. It is simple and strong. It consists principally of two standard members, a horizontal wood strip the width of the panel, and a vertical strip the height of a block. The two strips have the same profile and the same thickness. They replace the standard quarter-inch mortar joint so well that at a glance one does not readily distinguish a “mortar” job from a “wood-strip” job.

A panel is erected by laying a horizontal strip on each succeeding course of block and by placing a short strip in the vertical joint between each two blocks as the courses are laid. A stout frame of 2x4 construction surrounds the panel, and wood wedges force the blocks and wood strips tightly together.

Ask for the special folder on Insulux “Set-in-Wood Partitions” which completely illustrates the construction and shows how it is erected.

This type of panel is only recommended for limited use. It is neither air tight nor weather tight. Therefore, it should not be used in outside walls nor for partitions between rooms where maximum privacy is needed. But there are places where the system is very useful, especially in remodeling. The use pictured at the top of Page 22 of this book and the uses illustrated in the two photographs at the top of Page 23 offer excellent examples of places where it can be used. Available only for 8-inch and 12-inch block.



WOOD STRIP PANEL IN OFFICE RECEPTION ROOM



NEW SIMPLE WAY TO BUILD INTERIOR PANELS

GLASS BLOCK DETAILS FOR BRICK VENEER WALLS

Glass block panels can be easily and economically installed in all types of residential construction. Materials for their installation are furnished by the Insulux dealer or distributor. They are laid up by masons in much the same manner as brick.

It should be noted that a glass block panel does not require any frame when installed in either masonry or wood walls as they are placed directly in the rough opening as shown in the accompanying details.

The dimensions of the rough opening to receive the block should be $\frac{3}{4}$ " larger in height and width than the number of units used.

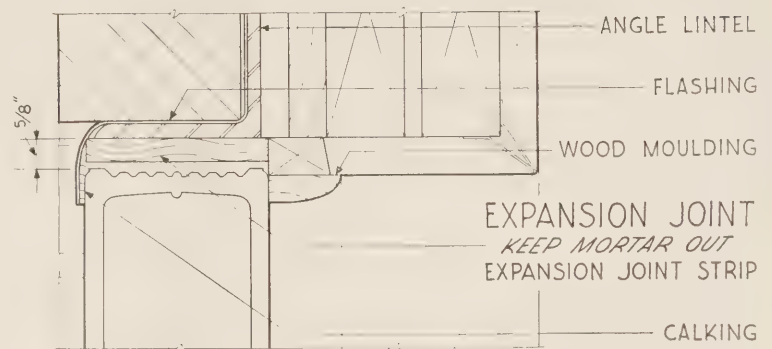
Glass blocks are laid with regular masonry mortar using a 1-1-4 mix of Portland cement, lime and sand.

Expansion joints $\frac{1}{2}$ " thick must be provided at each side and top of all panels, as indicated in the drawings. Insulux (Fiberglas) expansion strips are furnished by Owens-Illinois glass block distributors for lining these joints.

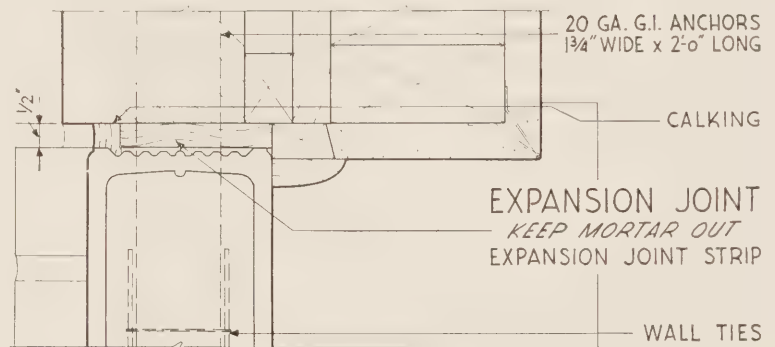
The panel rests on a regular mortar bed at the sill. The sill should be coated with asphalt emulsion before laying the first mortar joint.

In laying glass block it is important that all mortar joints be filled completely with mortar for the full thickness of the block. The block should be shoved into place, compressing the vertical and horizontal joints so that the coated mortar-bearing edge of each block is in full contact with the mortar.

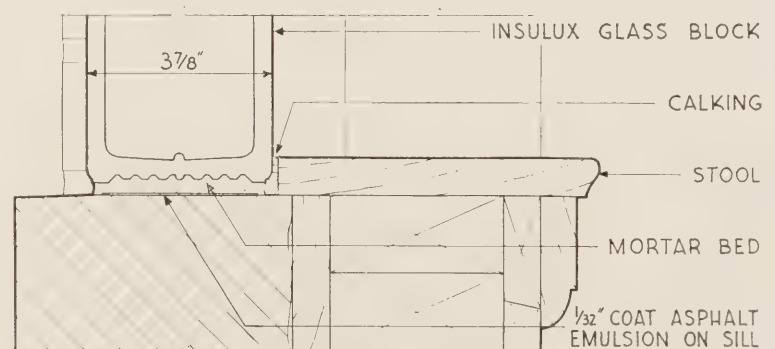
Glass block panels must be anchored to the surrounding construction. In the case of brick veneer or masonry construction the panel can be anchored by 20 gauge perforated wall ties. In wood construction the panels can be anchored in place by wood stops or casings lapping the edges.



HEAD DETAIL



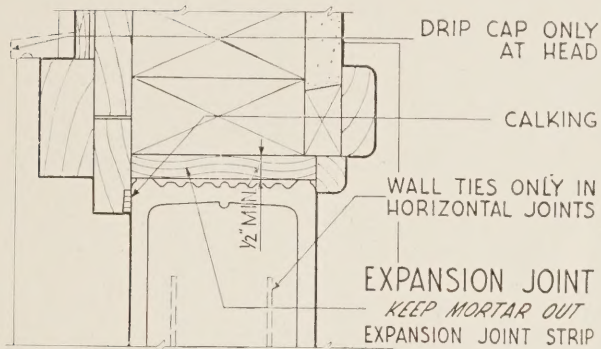
JAMB DETAIL



SILL DETAIL

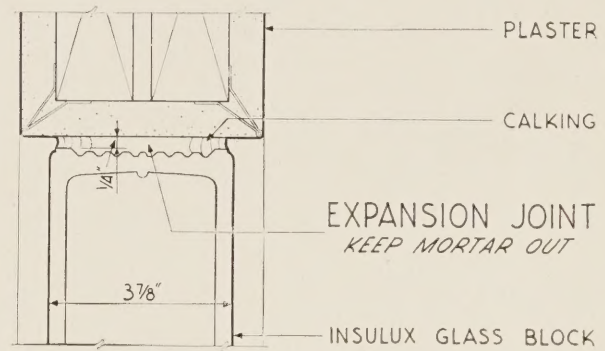
SCALE 3"=1'-0"

GLASS BLOCK DETAILS FOR WOOD FRAME WALLS

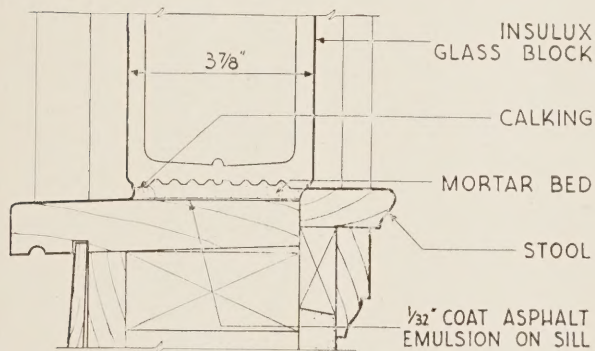


HEAD & JAMB DETAIL

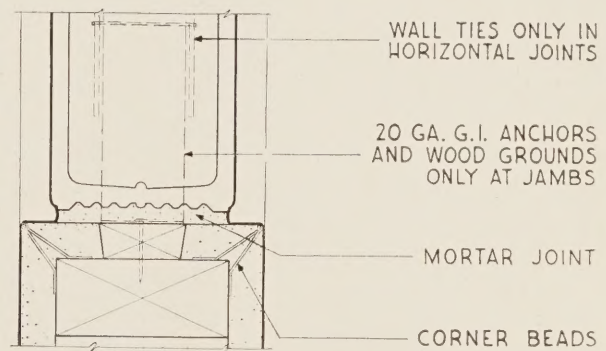
GLASS BLOCK DETAILS FOR INTERIOR PARTITIONS



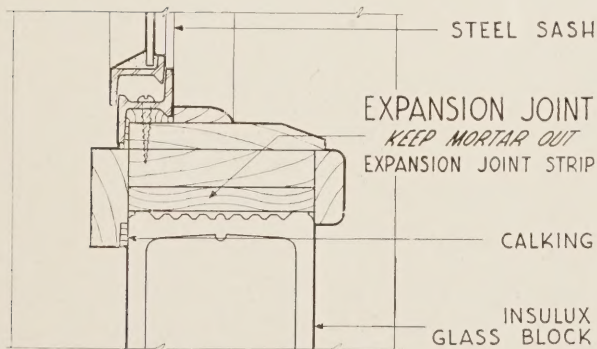
HEAD DETAIL



SILL DETAIL

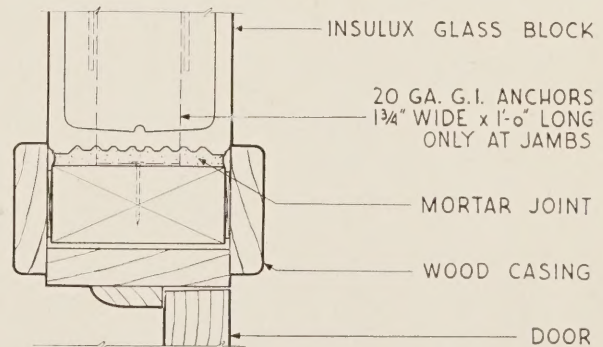


JAMB & SILL DETAIL



MULLION DETAIL

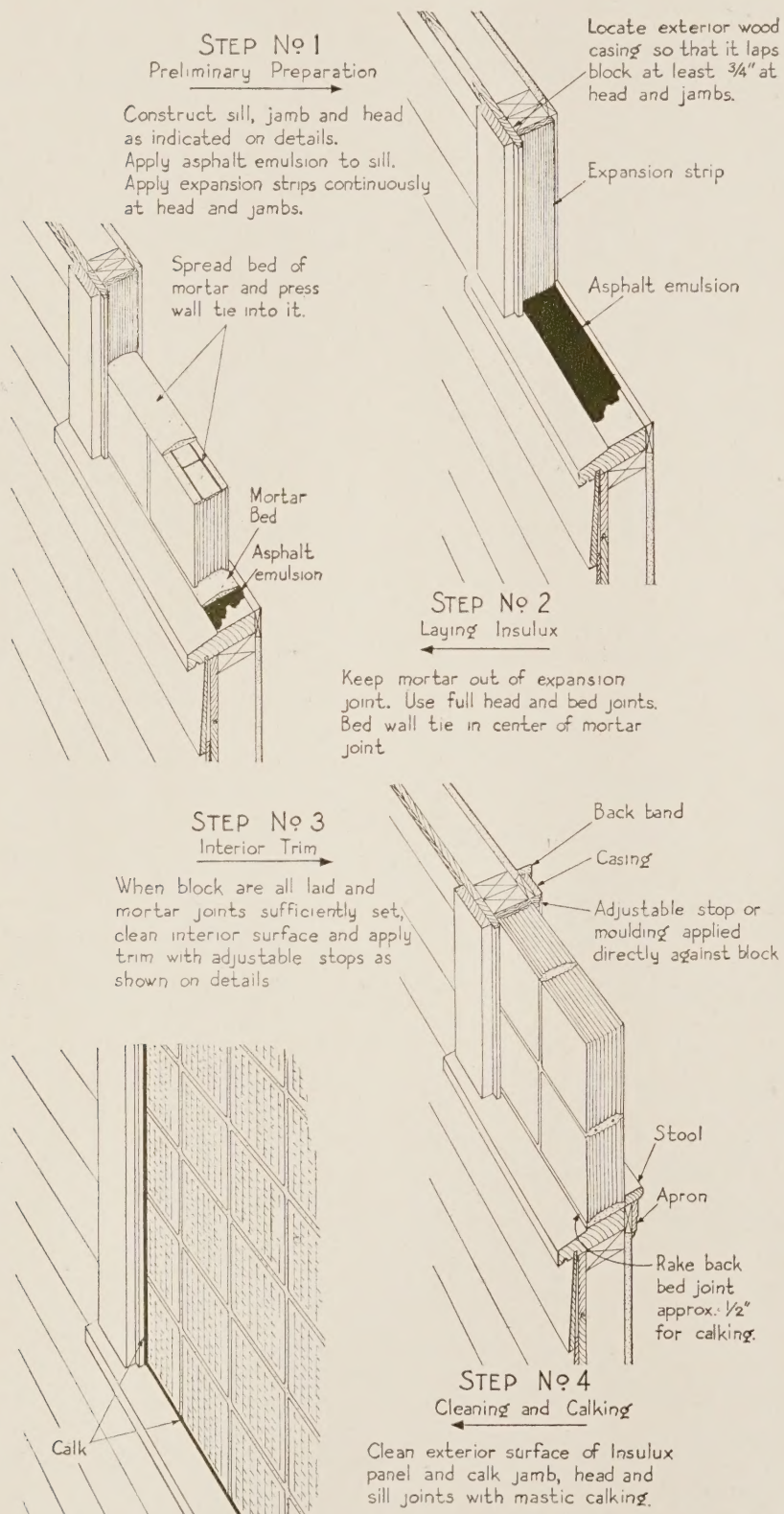
SCALE 3"=1'-0"



DOOR JAMB DETAIL

SCALE 3"=1'-0"

TYPICAL STEPS FOR LAYING INSULUX GLASS BLOCK



SEE PAGES 30 AND 31 FOR CONSTRUCTION DETAILS

