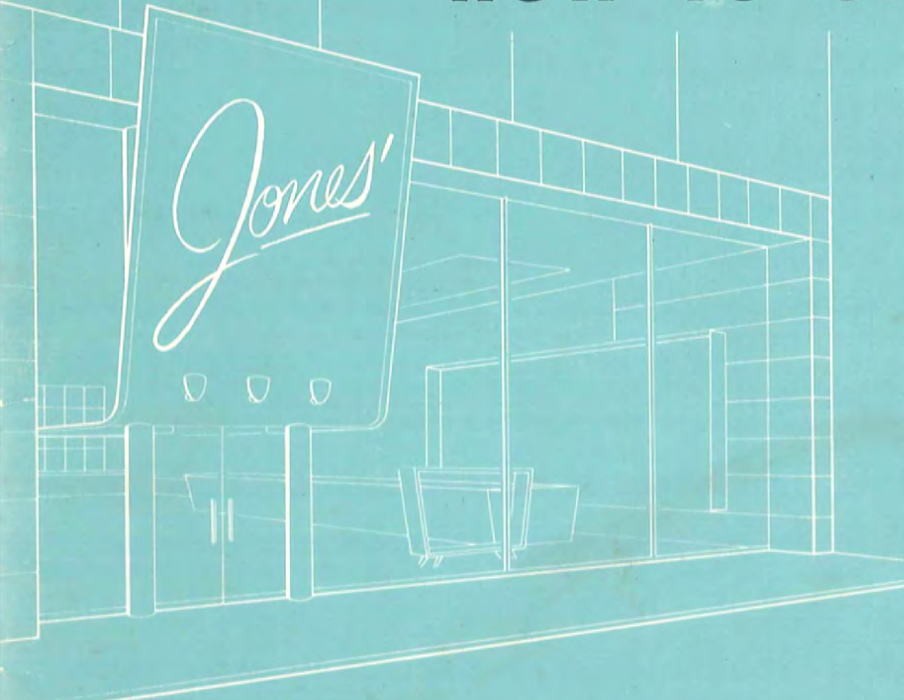


HOW TO GIVE



*your
store*

THE LOOK THAT

sells

PITTSBURGH



PLATE

GLASS

COMPANY

Store Modernization...

How the times have changed!



NOT SO LONG AGO retail merchandising was a very simple—if somewhat inefficient—selling process. There wasn't much specialized selling . . . one store stocked just about every known commodity. And the stock area of yesteryear's store consisted, for the most part, of bundles, barrels, bales and bunches stacked helter-skelter. Customers brought their own jugs or pails for liquids. And brown wrapping paper, pokes and string were consumed in huge quantities.

Little consideration was given to the retail salesroom of the "cracker-barrel" era. The customer fought his way along dark, narrow aisles stacked high with inaccessible merchandise to await his turn at the wrapping counter where it seemed everything he wanted was procured in bulk from the dark recesses of the back room.

Only the more advanced establishments used display, and this consisted only of a small glass showcase where luxury items such as the limited candies and notions of the day were shown. But merchants soon found that this small glass showcase was an effective tool in creating a desire for merchandise which would otherwise rot away in the backroom barrel. So the long, steady climb toward attractive, ample display was started . . . 'til today we find a trend that is a complete reversal of early retailing practices.

● Architect: George Sellon, Sacramento, Calif.



KEYSTONE TO BETTER BUSINESS

Today WE KNOW display as the first requisite of good store design. From the small wrapping counter and sales space of yesterday, the modern retail outlet (stock area and all) has become a huge, functionally-arranged showcase . . . painstakingly designed to give sales impetus to every area of the establishment. All the dormant factors of sales psychology, color, light, packaging, etc. are carefully considered and used strategically for their maximum advantages as point-of-purchase promotion media.

For in today's keenly competitive market shoppers have to be *sold*. Every wile must be used to get the shopper's attention . . . win his admiration . . . draw him into the store. The modern, attractive store gets the most attention—and the most sales.

One of the most effective weapons in today's battle of competition is the open-vision store front, distinguished by large areas of Plate Glass and transparent Herculite Doors. An open-vision front places the entire store on display, presents the store interior and the merchandise displays to the best advantage. Open-vision store fronts help create a desire for displayed merchandise . . . often make sales before the customers enter.

The power of an attractive entrance is also important in modern merchandising. An entrance should be inviting . . . should suggest a word of welcome. It should unobtrusively guide patrons from the street to the interior of the store. The all-glass door is particularly effective in this respect. It fairly beckons the passer-by to come in.

Framing of the exterior to best enhance and harmonize with the interior is another important consideration in modernizing a store. There should be no distinct demarcation indicating where the store front ends and the interior begins. Rather, they should be treated as a whole . . . a whole which reflects personality, quality, character. To achieve this end many stores use bright, colorful piers, lintels and bulkheads of Carrara Structural Glass.

Of course, nothing is more valuable as a merchandising asset than a good name. Just as important is to identify that good name with the establishment and the goods it has to offer. So the arrangement and placement of the name is a serious consideration. Signs should be of good proportion . . . not garish, yet not exceedingly small. They should be decorative, convey a message, and serve as an integral part of the store.

Take a good look at *your* store . . . with a shopper's critical eyes. Would you stop by if you were a prospective customer? Would you go out of your way to come back again? Does the appearance of the store suggest better and more up-to-date merchandise than that offered by competitors?

If your store needs modernizing, check the many Pittsburgh Products described on pages 28-31 of this booklet. There are products that are bright, sparkling, colorful . . . that are sturdy, easy and economical to maintain. For clear ideas of how Pittsburgh Glass and Pittco Store Front Metal can be used in your store check the Pittsburgh installation pictures which follow.

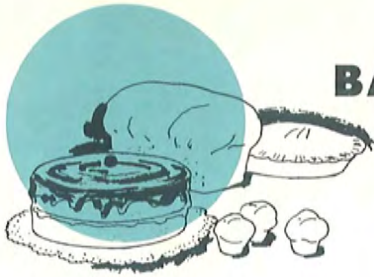


"Since the installation of our new store front business has increased 25%," says Jay L. Wilder, owner, Wilder Drug Co., Inc., Joplin, Mo.

"Our new store front helps us create that desired first impression so necessary in this competitive business," says Carl R. Keltch, Co-owner, Humbrecht & Keltch Drugs, Fort Wayne, Ind.



BAKERY SHOPS



Location: St. Louis, Mo.
 Architect: Cay G. Weinel, St. Louis.
 Products Used: Carrara Structural Glass; Pittsburgh Polished Plate Glass; Pittco De Luxe Store Front Metal; Herculite Tempered Plate Glass Door; Herculite Door Frame Assembly.



Location: Detroit, Mich.
 Architects: Smith, Hinchman & Grylls, Inc., Detroit.
 Products Used: Pittsburgh Polished Plate Glass; Pittco De Luxe Store Front Metal; Herculite Tempered Plate Glass Door; Herculite Door Frame Assembly.



Location: Buffalo, N. Y.
 Architects: Foit & Baschnagel, Buffalo.
 Products Used: Twindow; Carrara Structural Glass; Herculite Tempered Plate Glass Doors; Herculite Door Frame Assembly.



BEFORE

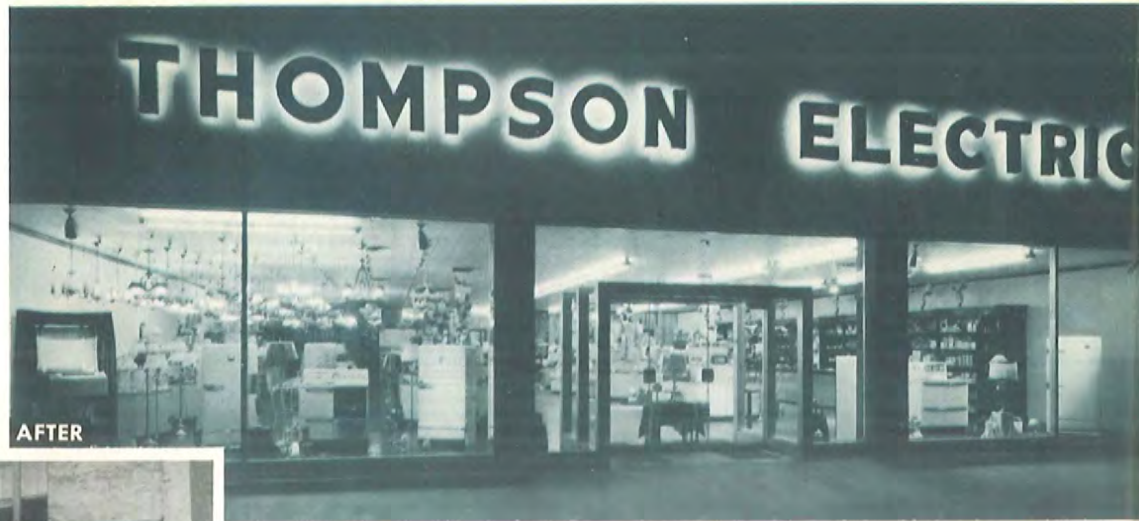


AFTER



ELECTRICAL APPLIANCE STORES

*Location: Beaumont, Texas.
 Architect: Wallace B. Livesay,
 Beaumont.
 Products Used: Carrara Structural
 Glass; Pittsburgh Polished Plate
 Glass; Pittco Store Front Metal;
 Herculite Tempered Plate Glass
 Doors.*

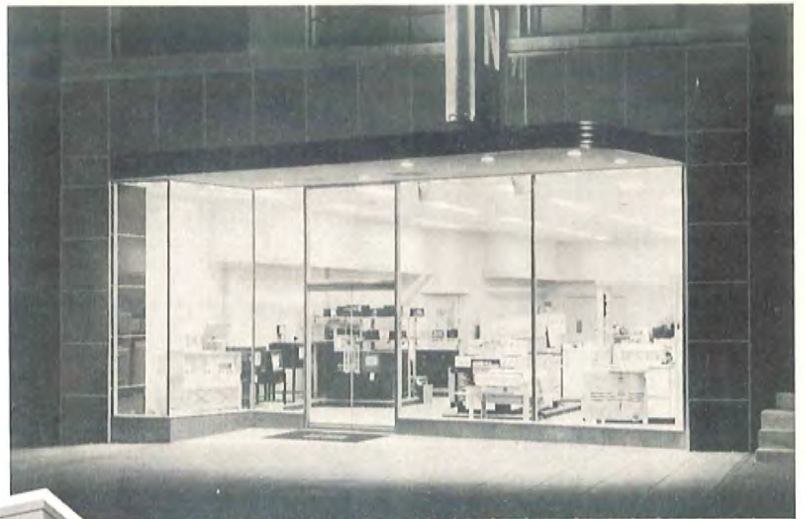


AFTER

BEFORE



*Location: Chicago, Ill.
 Architect: Sidney C. Finck; Harold
 S. Pawlan, Associate, Chicago.
 Products Used: Pittsburgh Polished
 Plate Glass; Pittco Premier Store
 Front Metal; Pennvernon Window
 Glass.*

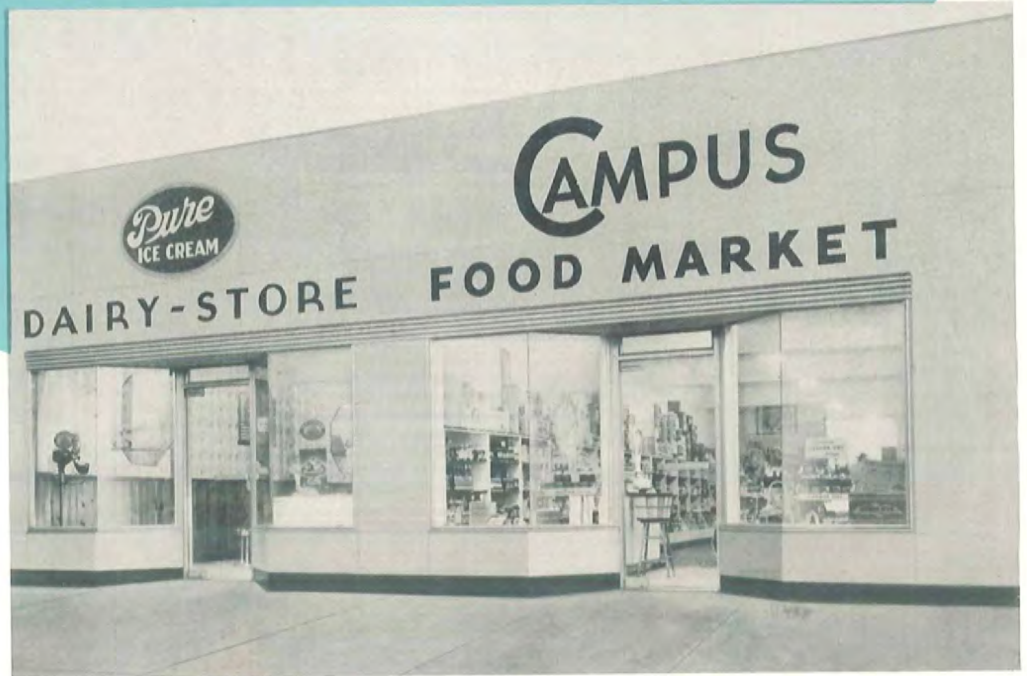


*Location: Baltimore, Md.
 Architect: A. C. Radziszewski, Baltimore.
 Products Used: Carrara Structural Glass;
 Pittsburgh Polished Plate Glass; Pittco De
 Luxe and Pittco Premier Store Front Metal;
 Herculite Tempered Plate Glass Doors.*



FOOD STORES

Location: Parkersburg, West Virginia.
Architect: Jesse D. Folwell, Parkersburg.
Products Used: Pittsburgh Polished Plate Glass;
Pittco De Luxe Store Front Metal;
Herculite Tempered Plate Glass Doors;
Carrara Structural Glass.



Location: Wichita, Kansas.
Architects: Forsblom & Parks, Wichita.
Products Used: Pittsburgh Polished Plate Glass;
Carrara Structural Glass; Pittco De Luxe and Pittco
Premier Store Front Metal; Herculite Tempered Plate
Glass Doors.





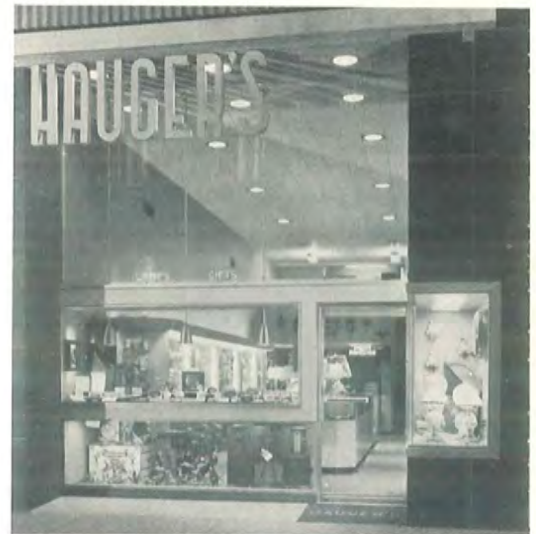
JEWELRY STORES



Location: Atchison, Kansas.
Architects: Griest & Ekdahl, Topeka, Kansas.
Products Used: Bent Pittsburgh Polished Plate Glass; Carrara Structural Glass; Herculite Tempered Plate Glass Doors and Sidelights; Pittsburgh Mirrors; Corrugated Structural Glass.

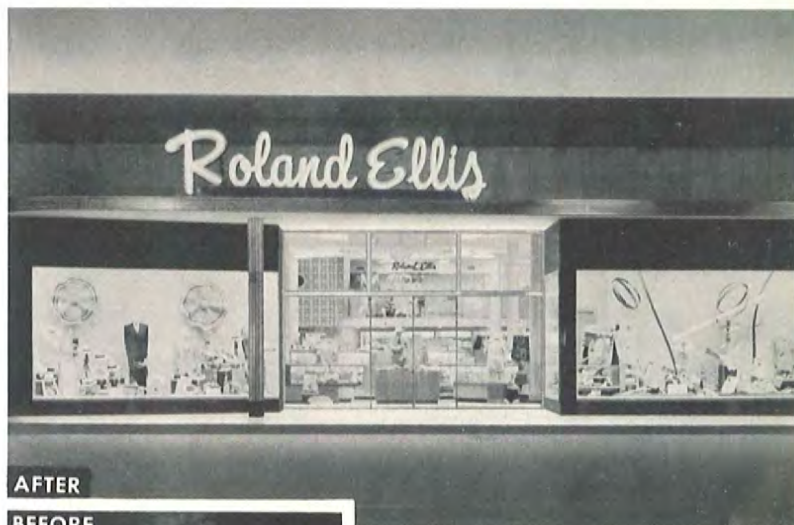


Location: Cumberland, Md.
Architect: S. Russ Minter, Cumberland.
Products Used: Carrara Structural Glass; Pittsburgh Polished Plate Glass; Herculite Tempered Plate Glass Doors; Herculite Door Frame Assembly; Pittco De Luxe Store Front Metal.



MEN'S WEAR STORES

Location: Cumberland, Md.
Architect: S. Russ Minter, Cumberland.
Products Used: Carrara Structural Glass; Pittsburgh Polished Plate Glass; Herculite Tempered Plate Glass Door; Herculite Door Frame Assembly; Pittco De Luxe Store Front Metal.



AFTER

BEFORE



Location: Dallas, Texas.
Architect: Phil T. Crown, Dallas.
Products Used: Pittsburgh Polished Plate Glass; Pittco De Luxe Store Front Metal; Herculite Tempered Plate Glass Doors.

Group Modernizing

HELPS YOUR BUSINESS . . . BENEFITS THE ENTIRE COMMUNITY

THE MODERN, inviting store is the one that attracts the trade that brings you profits. And when merchants get together and remodel their stores in groups, experience has proved that the result is a greater degree of prosperity for *all*. That's because group modernization helps *keep local business at home*. Instead of going off to larger centers nearby to spend their shopping dollars, neighborhood residents decide to trade with their own local merchants . . . because they're convinced that stores that are so modern and up-to-date in appearance must have merchandise for sale that is up-to-the-minute too. And, although the over-all effect of group

modernizing is one of unity in design, with the advanced Pittsburgh group modernization techniques each store front stands on its own feet, keeps its individuality.

Join hands with your local Chamber of Commerce and merchants' trade association, with city planning committees, with other neighborhood merchants and plan improvements. Such action will help keep local business at home . . . and attract *new* business from other areas.

A few examples of actual group modernizations are shown here to illustrate just what can be accomplished with Pittsburgh modernization products.

BEFORE



Location: Beverly Hills, California.
Architect: Stephen A. Stepanian, Beverly Hills.

AFTER





BEFORE

AFTER



Location: Moline, Illinois.
 Architect: William A. Schultzke, Moline.



Location: Roeland Park, Mission, Kansas.
Architect: L. O. Willis, Kansas City, Mo.



Location: Arlington, Virginia.
Architect: William N. Denton, Washington, D. C.



Location: Wichita, Kansas.
Architects: Forsblom & Parks, Wichita.

1941

Catalog

LIBBEY

OWENS

FORD

Quality

Flat

GLASS

Products

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Detailed Index Structural Glass will be found
Pg. 29 and for Extrudalite Pg. 53

SELECTING THE RIGHT

L·O·F GLASS PRODUCT

SHEET GLASS — A Quality Double Strength is widely used in glazing private homes, apartment houses where low rentals prevail, smaller hotels, schools, hospitals and other public buildings.

POLISHED PLATE GLASS — (Clear and in Colors) In buildings and in private homes where the importance of quality glazing is recognized, Polished Plate Glass is used exclusively. It is essential for store windows. Its use in many mirror installations falls logically within the province of the architect. To furnish even broader opportunities in mirror treatment, L.O.F Polished Plate Glass is also now regularly produced in golden plate, three shades of blue, a peach and a green.

THERMOPANE — Thermopane provides double-glass insulation in a highly efficient form—consisting of two panes, separated by an air space, and welded into one metal sealed unit to be glazed in a single sash. Thermopane represents a marked improvement in insulation for all areas where either the practical or decorative scheme requires that glass be used.

AKLO — This Plate Glass, with its special chemical composition, has the unusual property of absorbing infrared heat rays. This is an important aid in maintaining even temperatures within a structure. AKLO plate Glass reduces the cost of operating air-conditioning equipment for cooling purposes, because it reduces the total load for a given window area. Recommended for storefronts and lighting fixtures where perishable products are to be displayed.

TUF-FLEX — Tuf-Flex Tempered Plate Glass has many specialty uses which employ the advantages of its peculiar properties. Its resistance to impact and thermal shock makes it ideally suited for uses where greater strength is necessary such as in display cases, revolving doors, display shelves, sign facings and show-window trim. Tuf-Flex cannot be cut, mitered, beveled or edged after tempering, and must therefore be ordered from the factory in exact sizes required.

VITROLUX — Vitrolux Color Fused Tempered Plate Glass has the same physical characteristics as Tuf-Flex with the added feature that it is available in a wide range of attractive colors — some translucent and some opaque. It answers the architect's demand for a material that will enable him to use luminous color as an integral part of the structure itself, and may be used to create unusual exterior or interior lighting effects. For more complete information see our special structural glass catalog.

FIGURED AND WIRE GLASS — Figured Glass is generally specified for office corridors, partitions, skylights, elevator doors and other openings where obscurity is desirable. As a decorative medium, its distinctive character is employed in many homes and public buildings. Wire Glass is used in skylights and light wells and usually is required by building codes in openings exposed to the possibility of fire.

VITROLITE — Vitrolite Opaque Structural Glass is furnished in a variety of plain and agate colors for use in bathrooms and kitchens in the home, modern storefront facings, store interiors and fixtures, wainscoting, theatre lobbies, toilet partitions in public buildings and similar installations. It is preferred for its unusual structural beauty, for sanitation and for the ease and economy with which its sparkling surface can be maintained.

GLASTONE — Glastone is a specially prepared concrete masonry unit to which a permanent facing of Colorful Structural Glass is bonded and mechanically anchored. Glastone meets the wide demand which exists today for structural glass in the form of a load-bearing masonry unit, to be built into and become an integral part of the building itself. For complete description of this interesting modern product see our special structural glass catalog.

THERMOLUX — Control of daylight for interior installations, or artificial illumination is now at the command of the architect. Thermolux diffuses light and directs it — downward, upward or straight across a room. Thermolux consists of mats of spun glass sandwiched between panels of clear or pattern glass. Thermolux, as partitions for offices, public buildings and homes, frees the designer from small-panel types of glass, being available in sizes up to 6 by 9 feet.



Flat (2) Glass

LIBBEY · OWENS · FORD

L·O·F POLISHED

PLATE GLASS

Libbey-Owens-Ford Polished Plate Glass is manufactured in plants fitted throughout with the finest and most modern equipment. Only raw materials of highest quality are used. The sparkling luster and brilliance characteristic of L.O.F. Plate Glass are a result of grinding and polishing by highly accurate machines. Grinding removes surface inequalities as the glass reaches this stage of manufacture. Polishing, which imparts distinctive beauty to L.O.F. Plate Glass is accomplished by felt-covered rotating discs. Each light of glass is carefully inspected and graded before it receives the identifying L.O.F. label. Because of its superior finish, unusual clearness and enduring brilliance, discriminating architects and builders prefer and specify Libbey-Owens-Ford Polished Plate Glass for an increasing number of uses.

PRACTICAL INFORMATION

The very finest Polished Plate Glass, which is used almost exclusively in making the costliest mirrors, is known as "Silvering Quality." Owing to the high cost of selecting this quality, it is never specified for building purposes. The next quality is called "Mirror Glazing" and is often used for high-grade glazing work, but is seldom specified in sizes over 20 sq. ft. Most of the plate glass used in glazing is known as "Glazing Quality." Definite requirements for tolerances in thickness and dimensions are set up in U. S. Government specifications. The general requirements under U. S. Standards are:

POLISHED PLATE GLASS FOR MIRRORS

MIRRORS have become, in many instances, an integral part of architectural design. In modern residences, as well as in stores and public buildings, they form an important part of the interior decorative motif. As the use of silvered plate glass continues to broaden, its specification and adaptation become more and more a province of architecture.

Libbey-Owens-Ford Polished Plate Glass is noted for its brilliant polish and freedom from imperfections.

STANDARDS OF QUALITY — For the guidance of the architect and owner and for the protection of the mirror manufacturer, the following standards of quality have been approved by the Mirror Manufacturers Association of America.

THICKNESS — Plate glass mirrors of commercial standard quality shall be between 3/16 and 5/16 of an inch thick. If specific thicknesses are ordered, a variation of 1/32 in. plus or minus the given thickness shall be allowed.

Flat (6) Glass



LIBBEY · OWENS · FORD

SILVERING — All commercial standard quality mirrors shall be silvered in an approved manner and guaranteed for a period of one year from the date of manufacture unless the mirrors are subjected to unusual conditions, such as open weather, moist walls, steamed rooms, direct sunlight or similar conditions.

TOLERANCES IN THICKNESS

The maximum and minimum thickness allowed shall not be more than the given thickness plus or minus one half the difference between the standard thicknesses, although for 1/4 in. glass occasional plates as thick as 5/16 in. are supplied. The general variation in thickness should not be more than 1/32 in. for individual lights under 10 sq. ft., in thicknesses up to 1/4 in. The variation in lights over 1/4 in. in thickness should not exceed one half the total tolerance for that thickness.

HOW TO SPECIFY PLATE GLASS

In specifying Polished Plate Glass and showing it on plans, indicate that it is to be manufactured by Libbey-Owens-Ford Glass Co. of (—) quality and (—) thickness in accordance with U. S. Government Standards.

HOW TO SPECIFY COLOR-CLEAR PLATE GLASS

When Color-Clear Plate Glass is to be used, insist on Libbey-Owens-Ford water-white color-clear Polished Plate Glass of 1/4" thickness and proper size.

HOW TO SPECIFY COLORED PLATE GLASS

Where Polished Colored Plate Glass is specified or shown on plans, it shall be manufactured by Libbey-Owens-Ford Glass Co., and shall be of (—) quality and (—) thickness (insert quality and thickness) in accordance with U. S. Government Standards.



**Table of Sizes and Thicknesses
POLISHED PLATE GLASS - CLEAR
and COLORED - COLOR CLEAR**

Product	Thickness	Standard Maximum Size	Maximum Size Special Order	
Polished Plate Glass	1/8"	72 x 74	74 x 144	
	13/64"	72 x 74	74 x 144	
	1/4"	124 x 170	126 x 250	
	3/8"	100 x 150	100 x 200	
	1/2"	100 x 160	100 x 200	
	5/8"	80 x 140	100 x 160	
	3/4"	80 x 130	100 x 150	
	7/8"	60 x 100	70 x 100	
	1"	60 x 100	70 x 100	
Colored Plate Glass	1/4"	60 x 100	70 x 100	
	Standard Blue	7/32"	100 x 140	110 x 170
	Medium Blue	7/32"	100 x 140	110 x 170
	Dark Blue	7/32"	100 x 140	100 x 170
	Peach	7/32"	100 x 140	100 x 170
	Standard Green	7/32"	95 x 120	100 x 150
	Golden	7/32"	95 x 120	100 x 150
	Color Clear Plate Glass	1/4"	70 x 140	90 x 140

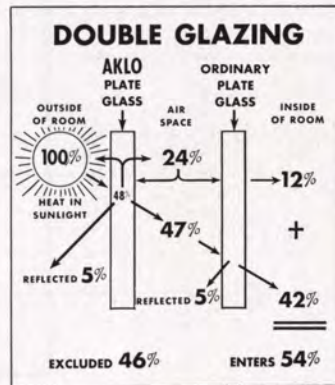
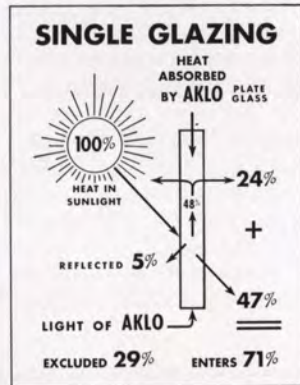
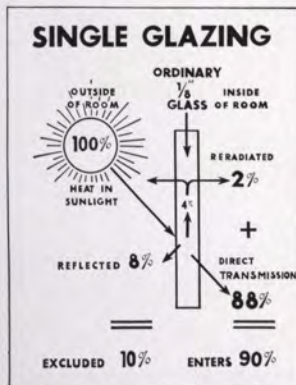
AKLO HEAT ABSORBING PLATE GLASS

AKLO Plate Glass is a glass of special chemical composition that has the unique property of absorbing solar heat. It does this by absorbing the infrared rays of sunlight. It is a practical aid in solving the problem of transmission of solar heat into all types of buildings.

It is particularly desirable in all places where clear vision is necessary but where the heat of the sun must be excluded — in florists shops, in grocery windows displaying fruits, vegetables and other perishable merchandise, as well as in homes and offices, and particularly in air con-

ditioned buildings and residences to reduce the summer air conditioning load.

Even when air conditioning equipment is installed to insure comfortable temperatures by artificial means, AKLO Plate Glass reduces the cost of operating that equipment by reducing the total summer cooling load for a given window area. Double glazing, of course, is always recommended and is particularly effective with air conditioning equipment. AKLO Plate Glass greatly increases air conditioning efficiency as is evident from the charts.



HOW TO SPECIFY AKLO PLATE GLASS

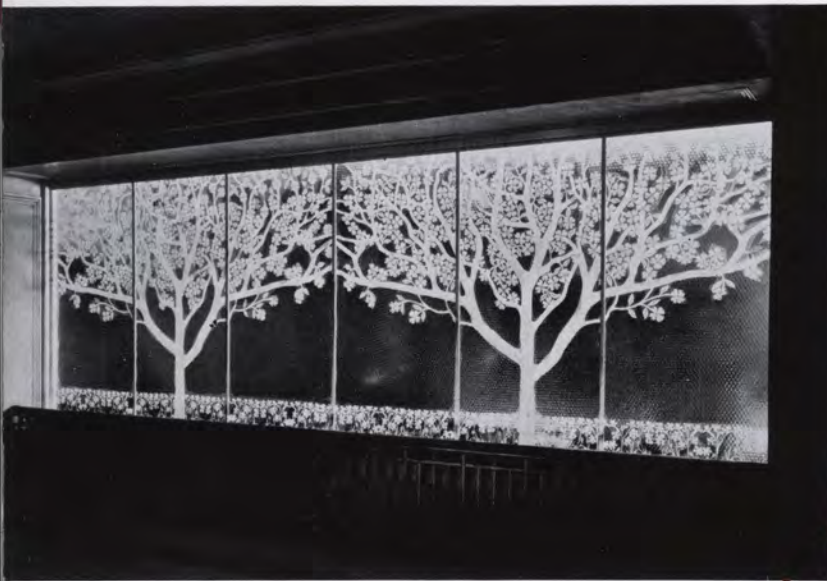
In buildings and homes exposed to the direct rays of the sun, specify Aklo Heat-Absorbing Plate Glass of suitable size and thickness.

Product	Standard Maximum Size	Maximum Size Possible on Special Order
Aklo Plate Glass		
Thickness		
1/4"	70 x 100	100 x 130
1/8"	40 x 60	60 x 80

Flat (7) Glass

QUALITY FLAT GLASS PRODUCTS

BLUE RIDGE FIGURED AND WIRE GLASS



A novel decorated glass partition made of Luminex Wire Glass in the Henry Grady Hotel, Atlanta, Ga. George Harwell Bond, Architect, Atlanta.

BLUE RIDGE FIGURED AND WIRE GLASS

This catalog of Blue Ridge Figured and Wire Glass provides Architects, Engineers and Decorators with factual information to aid them in choosing and specifying appropriate patterns, types and surface finishes of our glass. Pictures and brief descriptions of some interesting installations in residences, hotels, stores, offices and industrial plants attest to its functional value and eye appeal.

A Diversified Line of Products: For list of Patterns, Thicknesses, Sizes and Weights see the table on page 9. Pages 10, 11, 12 and 13 contain illustrations of the patterned glasses and useful information about the properties of each.

Blue Ridge Glasses are carried in stock by leading glass jobbers and glazing contractors or can be furnished promptly by them through quick shipment of any pattern, size and thickness from the factory's ample supplies.



THE SIX BASIC FUNCTIONS OF FIGURED AND WIRE GLASS

- 1** To provide effective illumination of glass enclosed areas.
- 2** To carry out a desired architectural motif or decorative treatment.
- 3** To provide the required degree of privacy by obstructing the view.
- 4** To modify temperatures in commercial and industrial buildings. (Aklo)
- 5** To retard the spread of fire from one building to another. (Wire Glass)
- 6** To enhance the value of fluorescent lighting.

STANDARD SPECIFICATIONS

Underwriters' Requirements

How to Specify Blue Ridge Figured or Wire Glass

Where Figured or Polished Wire or Obscure glass is specified herein, or shown on plans, it shall be (..) inches in thickness and shall be (..) pattern (specify thickness and pattern desired), and shall be manufactured by the Blue Ridge Glass Corporation.

If a surface finish other than plain rolled is desired, the type of surface finish, such as Satinol or Frosted, should be specified.

The Standard Satinol or Frosted (Glare Reducing) Finish Specification is: "Where Figured or Obscure glass is specified herein or shown on plans, it shall be (..) inches in thickness and shall be (..) pattern Satinol (one surface or two surfaces), or have Frosted, (Glare Reducing) finish on both surfaces, and each light shall bear the label of Blue Ridge Glass Corporation."

Underwriters' Requirements

The rules of the National Board of Fire Underwriters limit the size of wire glass which can be glazed in openings exposed to fire hazard. In no case shall the unsupported area of the glass measure more than 48 inches in either dimension or exceed 720 square inches (5 sq. ft.) Typical maximum sizes which satisfactorily meet that requirement are 15 x 48, 18 x 40, 20 x 36 and 24 x 30. It should also be noted that wire glass used for this purpose must be set in non-flammable materials. Blue Ridge Wire Glass is approved fire retardant bearing number R-2129 of the Underwriters' Laboratories, Inc.



Flat (8) Glass

LIBBEY • OWENS • FORD

BLUE RIDGE WIRE GLASS

FIRE RETARDANT NO. R-2129



STRENGTH: Because wire glass is used so frequently to protect buildings and their valuable contents against damage by spreading fires, it is very important that wire glass be as strong as it is possible to make it. That is the way Blue Ridge Wire Glass is made.

Wire glass is specified and used because of its fire-retarding properties and the fact that it will generally remain in the frame even though broken by impact. The center line of the glass itself is its point of zero strain. Strain introduced by the difference in expansion between wire and glass should be at this point. If the wire netting is substantially closer to one surface than the other, the glass is weakened and thus more easily broken by impact or pressure. Tests conducted by a well-known physicist showed conclusively that glass with properly centered wire is consistently stronger than glass of the same thickness and pattern in which the wire is decidedly off center. The difference was as high as 42% in some of the comparisons.

Wire Glass of maximum strength is assured by specifying Blue Ridge because our manufacturing process keeps the wire netting approximately in the center of the glass at all times. Specifications and Underwriters' Requirements and Table of Patterns, Thicknesses and Sizes, covering Blue Ridge Wire Glass may be found on pages 8 and 9 of this catalog.

APPEARANCE: Blue Ridge Figured Wire Glass is made with chromium plated netting. This extra process, while more costly in manufacture, makes the glass unusually attractive and brighter in appearance. Another outstanding feature of our wire glass is its freedom from clusters of bubbles on the wire that detract from the appearance of the job. The wire, too, is the best from the standpoint of physical properties that can be obtained.



POLISHED WIRE GLASS is used in all openings where clear vision and the security of non-scatterable fire-retardant glass are desired. This Blue Ridge product is made of genuine polished plate glass with wire reinforcement.

Conventional mesh wire pattern Blue Ridge Polished Wire Glass (wire mesh shown actual size). Note that the wire is clean—no disfiguring bubbles on the twisted wire to mar the sharp outline or distort the vision.



Blue Ridge Nuweld Polished Wire Glass (mesh shown actual size). The wires are welded together at each intersection to form a pleasing diagonal pattern.



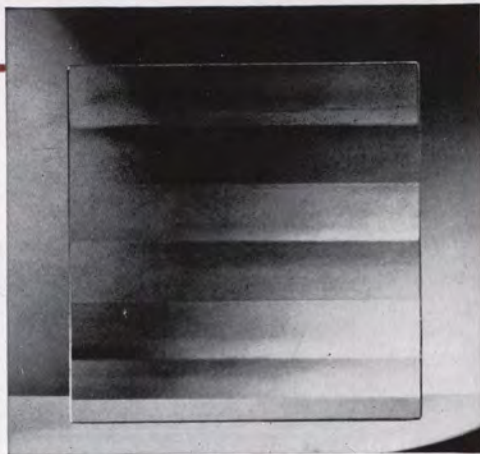
Flat (10) Glass

LIBBEY • OWENS • FORD

LOUVREX - FLUTEX - REEDEX

THREE HIGHLY DECORATIVE

BLUE RIDGE PATTERNED GLASSES



← Louvrex Cross Section
1/4 Actual Size

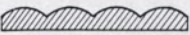
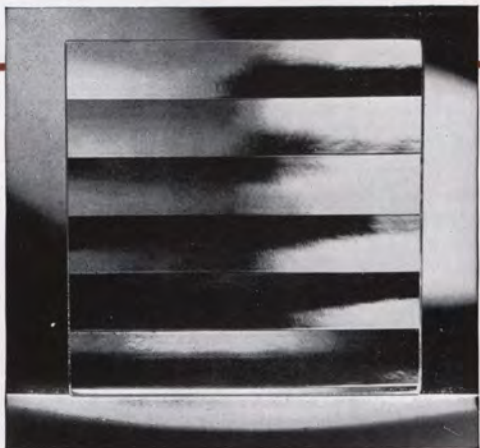
LOUVREX

Made in $\frac{1}{8}$ and $\frac{7}{32}$ in. thicknesses with fire finished surfaces and in $\frac{7}{32}$ in. thickness only with flat surface mechanically ground and polished; also with flat surface Satinol processed.

DESCRIPTION—The Louvrex pattern is formed by a series of plane surfaced strips, 1 in. wide, alternately ascending and descending. In appearance, these resemble louver strips in venetian blinds. Since the eye tends to measure from valley to valley across the ridge — a distance of 2 in. — Louvrex gives the effect of a pattern 2 in. wide. It is relatively transparent but Satinol processing gives it great obscurity and wide diffusion of light.

USES — Louvrex was created to meet the demand for a decorative glass with a distinctly modern feeling. It is widely used for both interior and exterior glazing, for partitions, screen partitions and many other uses.

Approximate Light Transmission — unwired 90.4% (not made in wire glass).



← Flutex Cross Section
1/4 Actual Size

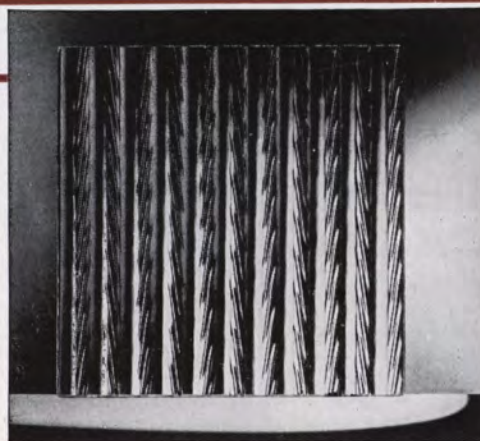
FLUTEX

Made in $\frac{1}{8}$ and $\frac{7}{32}$ in. thicknesses with fire finished surfaces and in $\frac{7}{32}$ in. thickness only with flat surface mechanically ground and polished; also with flat surface Satinol processed.

DESCRIPTION — The Flutex pattern is more pronounced than that of Louvrex. It consists of a series of adjoining convex flutes 1 in. wide, each being in effect, an elongated magnifying glass.

USES — The uses for Flutex and its characteristics are largely the same as those of Louvrex. Where the architect or designer desires the effect of a sharper, more definite pattern, Flutex may be better suited.

Approximate Light Transmission — unwired 89.0% (not made in wire glass).



← Reedex Cross Section
1/2 Actual Size

REEDEX

Made in $\frac{7}{32}$ in. thickness only with fire finished surfaces and with flat surface mechanically ground and polished; also with flat surface Satinol processed.

DESCRIPTION — Reedex has a unique and charming pattern made up of a series of $\frac{1}{2}$ in. corrugations, on the ridge of which is an interesting herringbone design. Viewed as a whole, Reedex, as the name implies produces a reed-like effect that makes it ideally suited to modern design. Reedex is high in light transmission and but slightly more obscure than either Louvrex or Flutex.

USES — The more obvious uses for Reedex are found in windows, doors, vestibule panels, transoms and partitions. Because of its novel pattern however, Reedex is particularly suitable for effective display lighting of both interiors and exteriors.

Approximate Light Transmission — unwired 86.7% (not made in wire glass).

Flat (11) Glass

QUALITY FLAT GLASS PRODUCTS

BLUE RIDGE DECORATIVE GLASS

IN RESIDENCES



LEFT: A floor to ceiling partition made of large panels of Louvrex in a Glen View, Ill., residence — George Fred Keck was the architect.



RIGHT: In his home, Architect Lester C. Tieby of New York, uses a partition of Louvrex to furnish light from the picture window to the room beyond the partition.

BLUE RIDGE DECORATIVE GLASS LOUVREX — REEDEX — FLUTEX

How Blue Ridge Decorative Glass contributes to Design and Decoration.

● Smart design and unusual effects—achieved through the use of Louvrex, Flutex, and Reedex—are pictured on this and the following three pages.

In many cases Satinol finish on one or both surfaces has been employed to enhance the appearance of the installation, improve illumination by diffusing light and to provide greater privacy.

Maximum dimensions of 54 in. x 136 in.* permit large surfaces unmarred by joints and make both Louvrex and Flutex ideal for double-glazed walls. Used in this manner, such walls become insulated areas.

*As pattern runs parallel with the 136 in. edge, the largest checkerboard effect obtainable by double-glazing is 54 in. x 54 in.



ABOVE: Light for the kitchen through the Flutex Glass panel. Architect, Clarence W. N. Mayhew, San Francisco.



ABOVE: Flutex Glass enhances the attractiveness of this cupboard.



ABOVE: Here a shower screen of Polished Flutex enclosing the square tub does triple-duty. It adds distinction, admits plenty of light and provides ample privacy.



ABOVE: A study in a Chicago residence where paneled walls of Louvrex provide plenty of light with partial obscurity. Architects—Pereira & Pereira, Chicago.



ABOVE: A dining room door glazed with Satinol Flutex. Note the interesting effect obtained by alternating the directional lines of the pattern. Philip D. West, Architect, Chicago.



Flat (14) Glass

LIBBEY • OWENS • FORD

BLUE RIDGE DECORATIVE GLASS

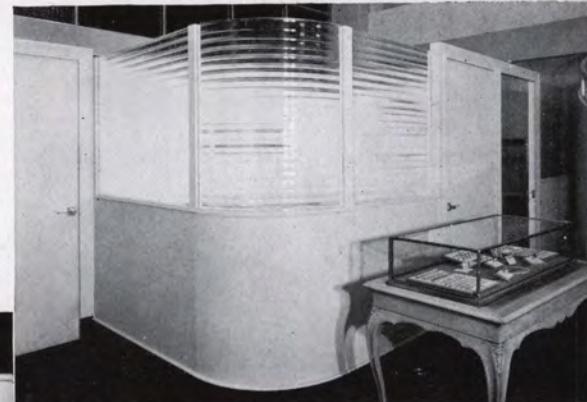
IN STORES AND SHOPS



ABOVE: An excellent example of what Louvrex contributes to the interior of Marcus & Company's smart 5th avenue, N. Y. store. The balcony partition of bent Louvrex transmits light into the executive offices beyond. Clarice Saymon, Designer.



LEFT ABOVE: Showrooms of the International Silver Co., Fifth Avenue, New York. Carl Conrad Braun, Architect. Satinol Louvrex provides an appropriate setting for the display of fine silverware.



RIGHT ABOVE: Bent, Satinol Flutex is used in the lighting installation made by the Polarizing Instrument Co. of New York in Gunther's — famed furriers of that city.



ABOVE: A charming fitting room in a smart dress shop. Satinol Flutex Glass provides privacy and softly diffused light. Mills, Rhines, Bellman & Nordhoff Inc., Architects.

RIGHT: The exterior of Marcus & Company's Store. A wide expanse of Louvrex is double-glazed with the glass pattern crossed to form an interesting checkerboard design. The individual panels are 36" x 30".



ABOVE: Bent Louvrex glass provides privacy and ample light for the sale of precious gems by Marcus & Co., Jewelers, Fifth Avenue, New York. Note the pleasing effect obtained with this linear pattern.

LEFT: A Minneapolis Department Store has equipped its Millinery department with these attractive "Privacy Partitions" made of Satinol Louvrex Glass.

Flat (15) Glass

QUALITY FLAT GLASS PRODUCTS

BLUE RIDGE DECORATIVE GLASS

IN HOTELS AND RESTAURANTS



ABOVE: The bright and cheerful modernization of the Rogers Park Hotel lobby. Satinol Louvrex in the skylight, plain Louvrex flanking the lobby entrance doors. James F. Eppenstein, Architect, Chicago.



ABOVE: The appealing front of the Grenadier Dining Room and Bar in the Detroit Leland Hotel is enhanced by the large windows glazed with Louvrex. Marie E. Stosskoff, Designer, Chicago. Consulting Architect, Ralph W. Hammett, Ann Arbor, Mich.



ABOVE: This modern entrance of Louvrex and Black Vitrolite welcomes every guest to the Rogers Park Hotel. James F. Eppenstein, Chicago, Architect.

In hotels and restaurants, the Blue Ridge Decorative Glasses — Louvrex, Flutex and Reedex — solve a dual problem for the architect and designer. They serve as pure decoration, to lend gaiety and life — to attract customers. They also serve the useful purpose of creating partitions, booths and extra rooms — privacy — with improved illumination. The result is both attractive and practical, as the illustrations will show.



ABOVE: The same windows as shown above in the Grenadier Dining Room and Bar, seen from the dining room. Notice how ample light is provided through the large panels of Louvrex without sacrificing privacy.

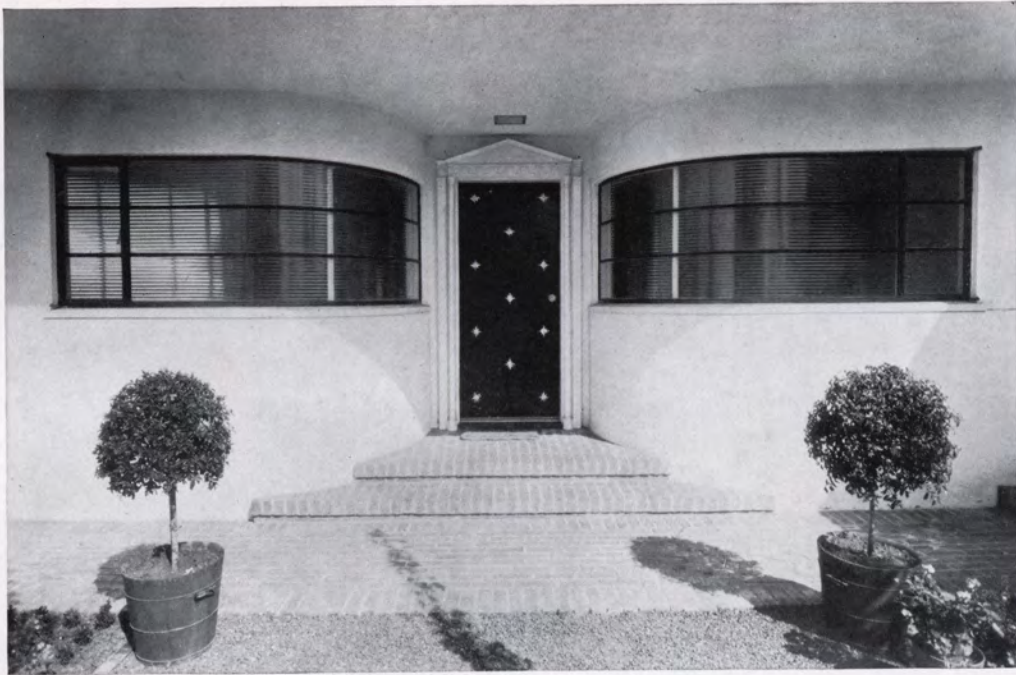


Flat (16) Glass

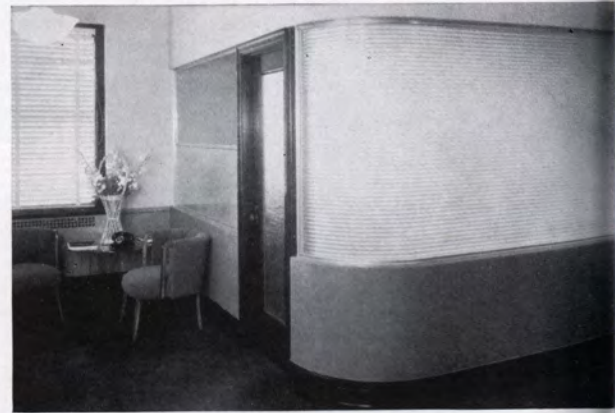
LIBBEY . OWENS . FORD

BLUE RIDGE DECORATIVE GLASS

IN OFFICES



ABOVE: The attractive directional pattern of Flutex is utilized by Architect Irwin M. Johnson in his offices in Oakland, California.



ABOVE: This picture of an office in the Carew Tower, Cincinnati, gives an excellent idea of what may be accomplished with decorative glass. The partition is glazed with bent Satinol Flutex. The door is glazed with Reedex.

ABOVE: This immense floor to ceiling light giving partition uses Satinol Louvrex for both decorative and practical purposes. It is in the Springfield office of the Illinois Bell Telephone Company. Holabird & Root, Architects, Chicago.



LEFT: Here Satinol Louvrex is used in the top and bottom lights of this office partition, plain Louvrex in the middle. A bent section carries the pattern around the turn. American Optical Company, Philadelphia, Pa. Silverman and Levy, Architects.

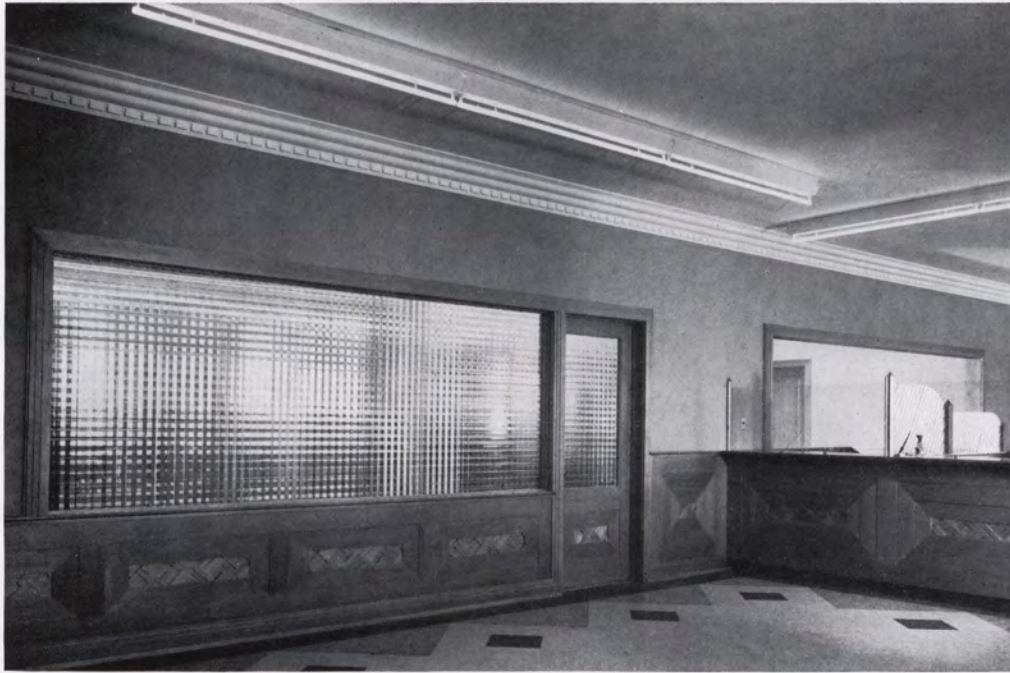


Flat (18) Glass

LIBBEY • OWENS • FORD

BLUE RIDGE DECORATIVE GLASS

IN OFFICES



ABOVE: Notice the "invisible joints" in this double-glazed Louvrex partition made up of several large panels of glass. This installation is in the Municipal Bldg., St. Charles, Ill. R. Harold Zook, Architect.



ABOVE: A bright, attractive office is screened from the reception room in the offices of the E. J. Hunt Company, Detroit. The glass is double-glazed Louvrex with Satinol finish on the outside to absorb reflection.

RIGHT: The horizontal lines of Flutex Glass lend a pleasing note to this smart reception room in the offices of the Chicago Vitreous Enamel Product Co., Chicago. Roy Blass, Chicago, Architect.



ABOVE: Screens of Louvrex with bent corners indicate how this decorative medium lends itself to modern streamlining. This is the Reception Room of the Portis Hat Company, Chicago. James F. Eppenstein, Architect, Chicago.



Flat (19) Glass

QUALITY FLAT GLASS PRODUCTS

BLUE RIDGE AKLO FIGURED AND WIRE GLASS

HEAT-ABSORBING FIGURED AND WIRE GLASS

WHAT AKLO GLASS IS

Blue Ridge AKLO is a blue-green low-expansion figured or wire glass that absorbs most of the sun's heat, admits an adequate amount of daylight, yet substantially reduces glare and eyestrain. Aklo figured or wire glass $\frac{1}{4}$ inch thick absorbs about 97½% of the infrared (heat) rays of the sun.

AKLO PROVIDES PROTECTION AGAINST HEAT RADIATION FROM THE SUN

Its use results in a positive reduction in shop or room temperatures and the maintenance of much more comfortable temperatures in the areas near sun-exposed windows. The use of AKLO reduces the amount of solar heat entering the building (through windows, skylights and transoms) by as much as 48%. Most important of all, Blue Ridge AKLO Glass accomplishes this without excessive reduction in translucency and thus provides better illumination the year around.

AKLO GLASS RESULTS IN MANY INDIRECT SAVINGS

Besides reducing glare and providing cooler summer temperatures indoors, AKLO figured or wire glass eliminates painting or white-washing of glass, reduces product spoilage, increases worker safety, decreases errors, speeds production and substantially improves worker efficiency. Used in windows and skylights instead of ordinary glass, it creates better working conditions and produces numerous direct savings in plant maintenance.

AKLO REDUCES AIR CONDITIONING COSTS

AKLO glass is particularly vital in air conditioned buildings. It takes only about 100 sq. ft. of AKLO wire glass in a horizontal skylight and from 200 to 250 sq. ft. in a westerly window to reduce the "design" cooling load by the equivalent of one ton of refrigeration as compared to ordinary glass. This amount of AKLO glass completely installed costs considerably less than a ton of extra



capacity and cooling equipment and the cost of operating the equipment thereafter is also reduced. AKLO Glass should be specified in combination with all air conditioning installations for reduction of cooling load and operating costs.

SEND FOR FULL INFORMATION

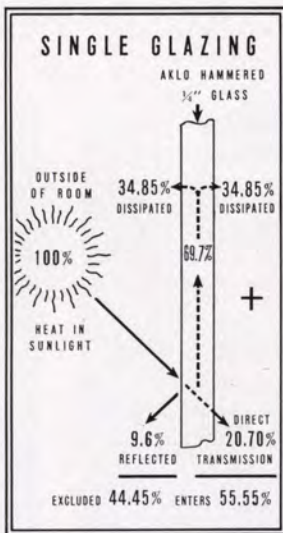
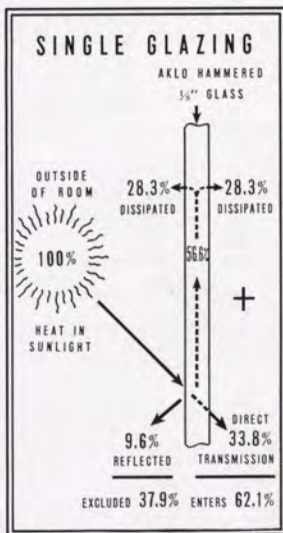
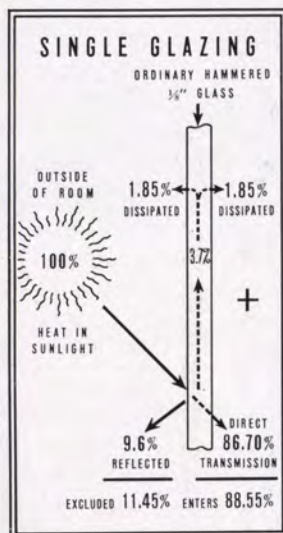
For more detailed technical information about AKLO Glass, its properties and installation send for our 12-page illustrated AKLO booklet — or refer to the Engineering Edition of Sweet's Catalogue.

SEEING IS BELIEVING

See this convincing Aklo Demonstration in your own office.



The unusual heat absorption qualities of Blue Ridge AKLO Glass are accurately and dramatically demonstrated with this highly sensitive Radiometer. We would like you to see this demonstration in your office. No obligation.



STANDARD SPECIFICATIONS FOR AKLO GLASS — Specified by U. S. Govt. as "Type H." "All flat and sloping skylights and all windows designed to receive obscure figured glass, except skylights or windows facing north or permanently shaded, shall be glazed with ALKO INDUSTRIAL GLASS having a co-efficient of expansion of approximately 20% less than ordinary figured or wire glass. (Here designate the desired pattern and whether wired or unwired, and desired thickness.) If severe conditions of glare must be overcome specify FROSTED AKLO (Hammered or Ribbed pattern), (Wired or unwired, and thickness, $\frac{1}{8}$ " or $\frac{1}{4}$ "). (Polished Wire $\frac{1}{4}$ " if transparency desired) "All other skylights and window areas facing north or in permanent shade, and designated on the drawings to receive obscure glass, shall be glazed with non-heat-absorbing glass of the patterns, thicknesses and types indicated herein."

REDUCING GLARE AND EYESTRAIN WITH

FROSTED AKLO GLASS



LEFT: "A soft well diffused light of uniform intensity over the entire working surface," is the way Mr. C. W. Dabney, Purchasing Agent of Champion Paper & Fibre Co., describes the daylighting in their inspection room glazed with Frosted Aklo Glass.

RIGHT: The modern way of daylighting offices. The three top lights are Frosted Aklo; the bottom light is Aklo polished wire. With this arrangement plenty of diffused light is admitted, heat is kept out. No blinds or awnings are necessary.



WHERE GLARE IS AN IMPORTANT PROBLEM USE AKLO FROSTED GLASS

● While fire-polished Aklo (Figured or Wire Glass) definitely reduces glare, it is strongly recommended that Frosted (Glare Reducing) Aklo Glass be used in all cases where glare is an important consideration. The purpose of this Frosted (Glare Reducing) Finish is to give uniformity of light by diffusing it widely and at the same time subdue the surface brightness of the glass itself. Just as the frosting of light bulbs was an important advance in the field of artificial lighting, so is the Frosted, (Glare Reducing) Aklo finish a great improvement in the daylighting of factories, stores and office buildings.

THE NATURE OF GLARE

Glare is the presence, within the field of vision, of any brightness, of such a character as to cause eye fatigue, discomfort, annoyance, or interference with vision. Seeing is reduced when glare is present because the pupil of the eye is contracted and less light reaches the eye. There are two types of glare — direct and reflected — both of which can be overcome with Frosted Aklo (Glare Reducing) Glass.

Direct glare is caused by light which reaches the eye directly from the source. This is most obvious when an operator faces uncontrolled daylight through a plant window. Frosted Aklo Industrial Glass is particularly recommended to correct this condition. Reflected glare occurs when bright images or reflected surfaces are caught on the eye retina. This is most dangerous in plant operation where the reflected surfaces may be in the proximity of moving parts or the surfaces may be moving

parts themselves. Naturally, the safety of the employee is in danger, operations are slower and movements less sure. The elimination of this factor alone bringing increased safety and faster operations, which tend to reduce costs, warrants the installation of Frosted (Glare Reducing) Aklo.

AKLO RESISTS THERMAL SHOCK

Ordinary Figured or Wire Glass in windows and skylights does not become very hot even when exposed directly to the sun for a long period of time. This is because practically all of the sun's heat passes right through the glass.

Aklo is unique among Heat-Absorbing and Glare-Reducing Figured or Wire Glasses in its low expansion and extremely high heat absorption properties. Obviously, the more solar heat a figured or wire glass absorbs, the lower its co-efficient of expansion must be. For this reason, Aklo Industrial Glass is not to be compared to the performances of any other glass. Under actual field conditions and in the laboratory, where there has been an opportunity to observe internal stresses, quick temperature changes, and unequal heating of the glass, Aklo has proven singularly successful in resisting thermal shock.

Aklo Industrial Glass has a co-efficient of .0000040 per degree F. against a co-efficient of expansion of .0000050 for ordinary glass. In round figures, Aklo expansion is approximately 20% less than that of ordinary glass.

Flat (22) Glass



LIBBEY • OWENS • FORD

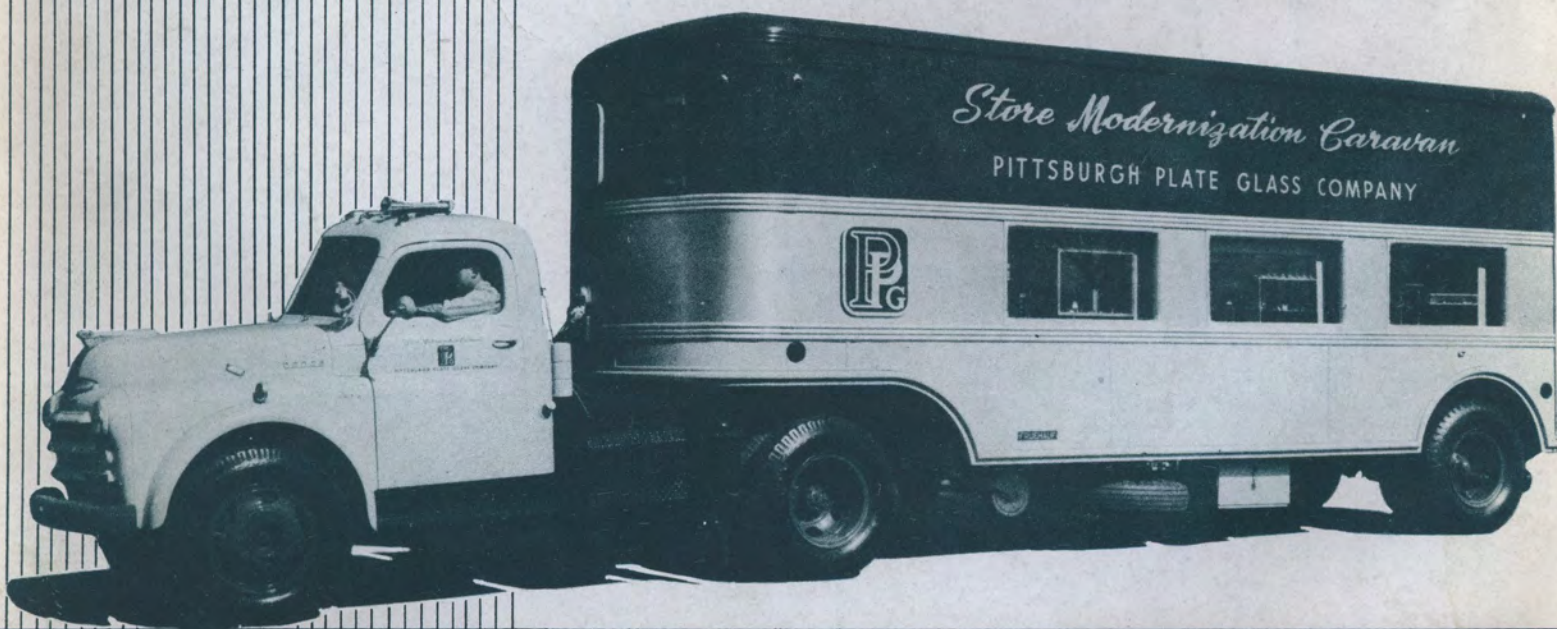
New trends in
store design—

New store-lighting
techniques—

In 12 beautiful
scale models—

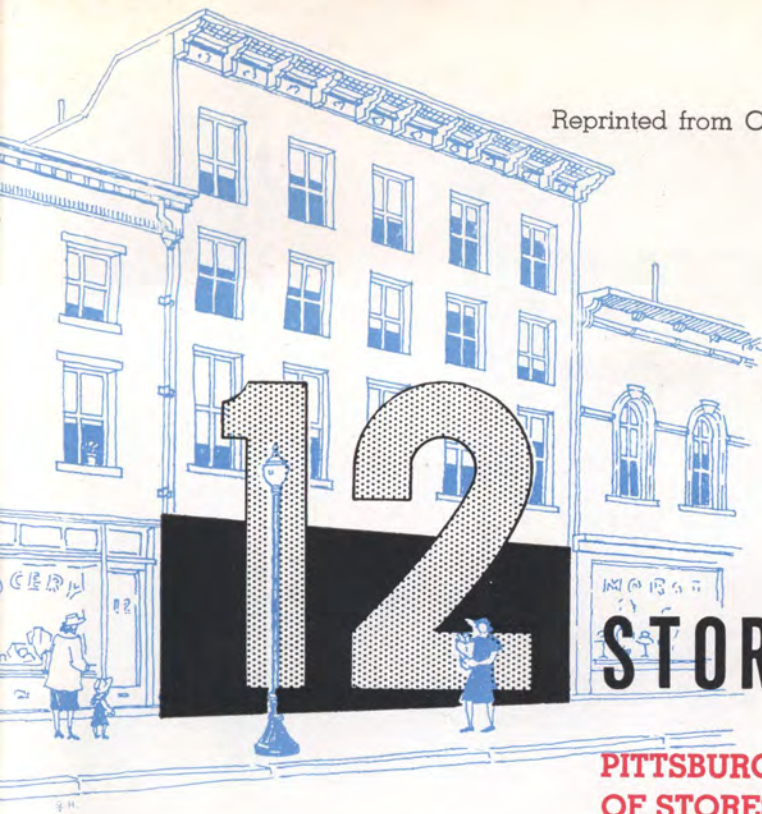
Visiting every state
of the Union.

"Pittsburgh's" Store Modernization Caravan



PITTSBURGH PLATE GLASS COMPANY





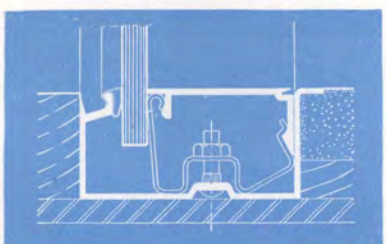
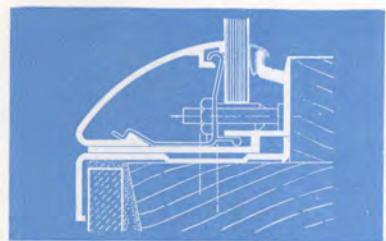
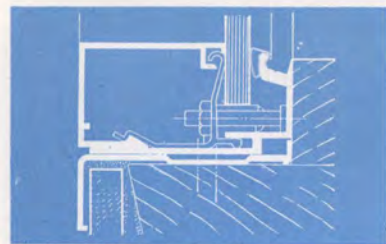
STORE MODERNIZATIONS

**PITTSBURGH PLATE GLASS CO. TRAVELING EXHIBIT
OF STORES DESIGNED BY E. A. LUNDBERG, ARCHITECT**

To promote store modernization of an intelligent type, the Pittsburgh Plate Glass Co. is currently sending on tour a caravan of store-front models. The models, themselves excellent pieces of craftsmanship, show only the fronts and what is visible through them, but the designs on which they are based are derived from conditions which exist universally. In addition, none of the fronts is considered as a front alone; all are developed to express a specific plan. In the following presentation the plans are shown in part, for the principal examples. Lack of space prevents inclusion of all plans.

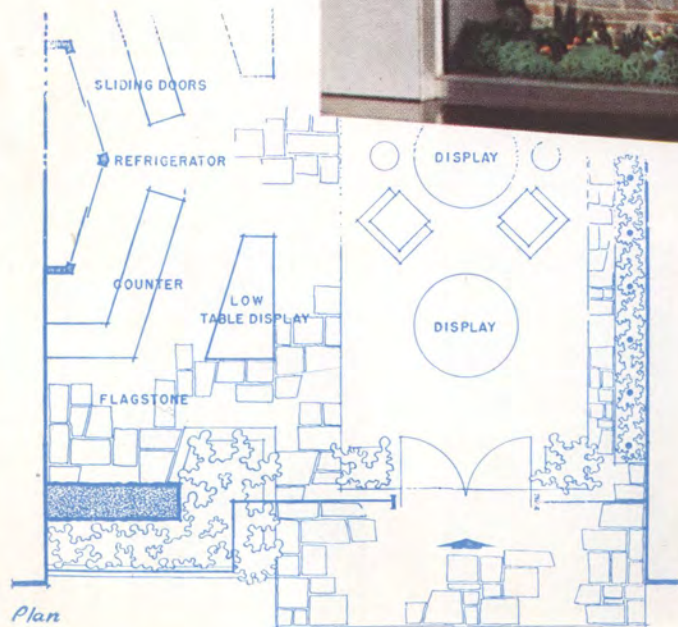
The company is not offering the designs as cure-alls, but intends them to stimulate ideas. Wherever the kind of trade makes it advisable, open store fronts are advocated by the presentation; reasons include not only the display of the entire interior of the store to attract customers, but also the fact that the interior, if it is on display, has to be reasonably well organized, and this usually improves the mechanics of selling and enables the merchant to increase his profits. In preparing the designs, the architect and the company have tried wherever possible to coordinate lighting and color with the physical scheme, bearing in mind the nature of the merchandise sold. For this purpose they have obtained the advice of outside consultants when necessary.

The caravan is being shown to groups of architects, store-owners, builders, and those who finance construction. In presenting it, the company stresses the importance of individual architectural attention and the great desirability of retaining a competent architect before proceeding.



DETAILS show typical standard store-front moldings manufactured by Pittsburgh, used in the illustrated designs.

Direct color photography specially for reproduction by Ives Color Processes, Inc.



Materials and Methods

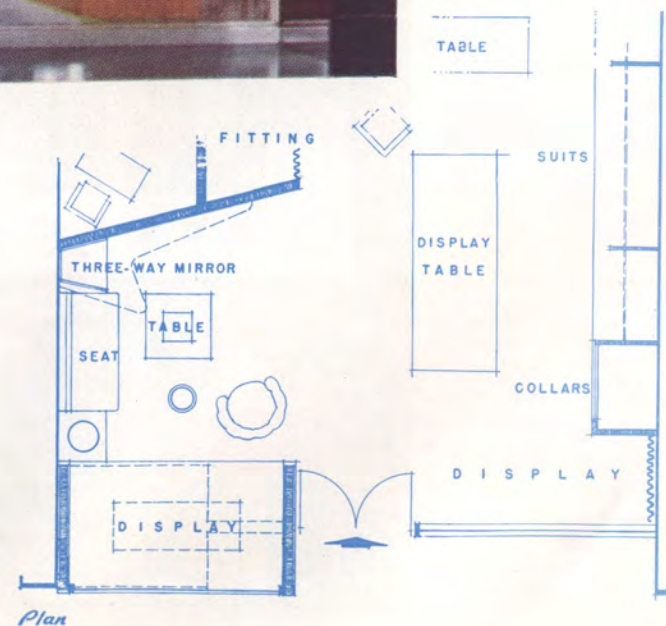
1 OPEN FRONT

Here the idea has been to bring into the window display the liveliness of color and form of the flowers shown inside, and to show the flowers along with natural materials. Hence, behind the completely open front, the stone pylon with structural glass shelves, and the planting beds running from the show window into the store. The recessed, flagged entry offers a transition from the street's artificiality to the naturalistic interior and affords the entering buyer some protection from foot traffic on the sidewalk. Inside, the refrigerator is made the dominating feature of the active selling space, which is to be more brilliantly lighted than the carpeted lounge space. The store is planned for a louverall ceiling; louverall's egg-crate lighting shield provides a reasonable approximation of natural lighting, and spotlights can be incorporated into it to highlight special displays.



2 SEMI-OPEN FRONT

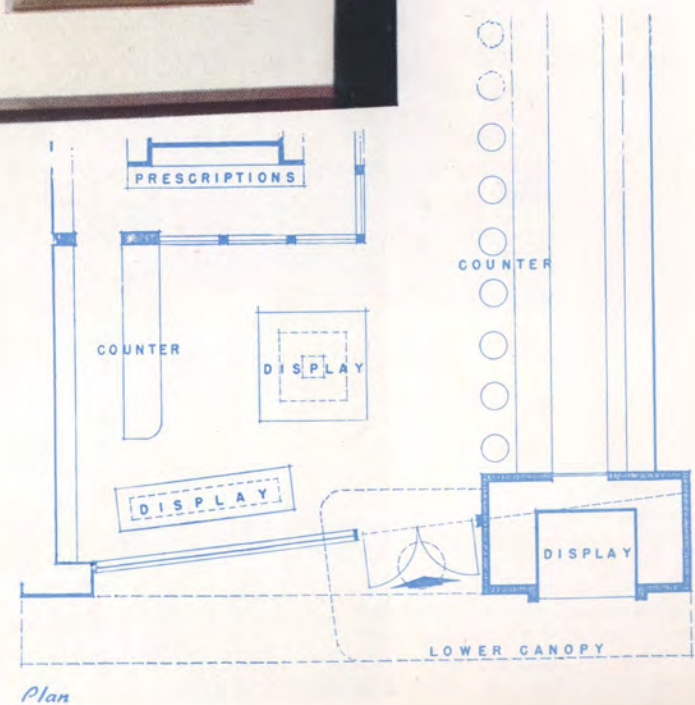
In the men's-wear store there is a need to display several kinds of items. At the same time, there may be a desire to let the passer-by see the store's interior and its activity. This scheme provides a framed display space in the window left of the entrance, and unobstructed vision of the interior through the other show-window. The framed display window may have closed or open back, depending on the type of merchandise and the owner's wish. The interior of the store is departmentalized; suits, which the average male buyer likes to see under daylighting, are kept close to the front of the store, with fitting room and triple mirror close by. The deep case for suits to the right of the entrance is designed so that showcase lights illuminate lower as well as upper parts of suits hanging in it. Shirts, collars, and other accessories are in the rear departments (not shown in plan), with some display space up front. Store-front materials are black structural glass, plate glass, and aluminum and bronze store-front metal.

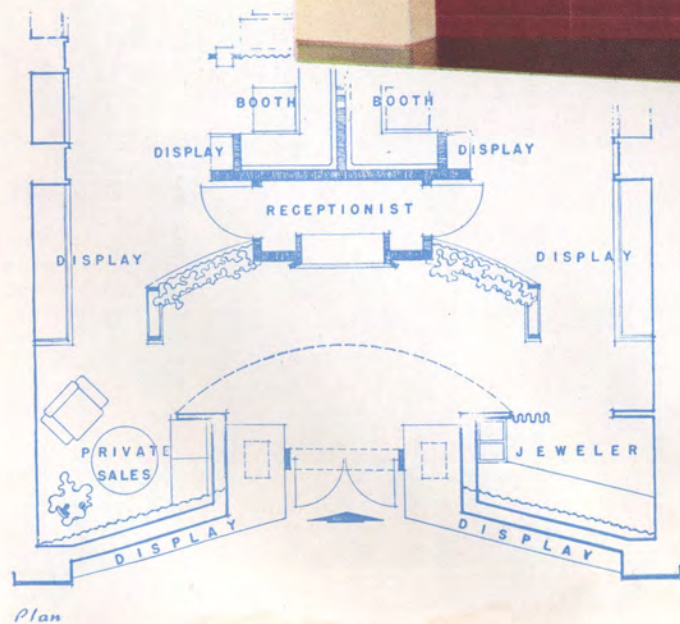




3 PARTLY CLOSED FRONT

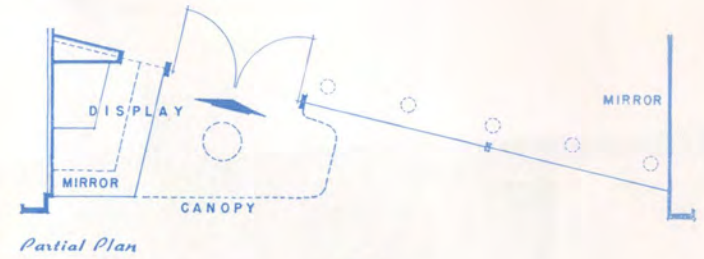
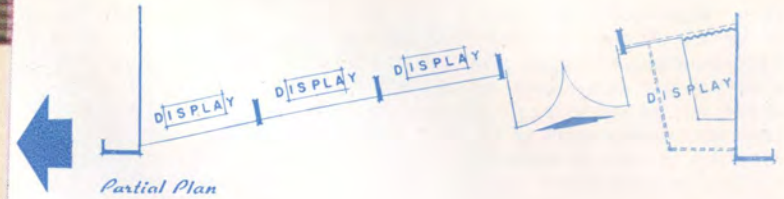
In this case, a partly closed front is desirable both because small items constitute the principal displays and because the particular development of the plan makes some closure desirable. The solid front framing the display window helps to concentrate attention on special features; and it also blocks view from the street of unattractive operations behind the soda fountain. Setting the glass portion of the store front, and the doors, at an angle provides room for the doors to swing out without projecting into sidewalk traffic. Over the display window and door, the lower canopy houses lighting fixtures designed to increase the intensity of illumination at the entrance. This is valuable not only to direct customers to the entrance, but also to afford a pleasant transition from the brilliantly lighted interior to a darker street, after sunset—important for the satisfaction of customers who must use the drugstore in the evening, when a great percentage of this type of store's business is transacted.





4 CLOSED FRONT

The custom jewelry store has somewhat a different problem than other retail establishments. A certain amount of privacy or exclusiveness is associated with jewelry-buying; and the merchandise, small in size, demands excellent lighting and display for close inspection. Hence the display portion of the store front needs to be concentrated, at eye level, with provision for intense lighting to make the merchandise sparkle. In this example the entire front, except at the doors, is "closed." The backs of the show-windows are translucent but not transparent, to provide light for the private-sales alcove and jeweler's workbench which flank the entrance. Inside, the store is arranged in a series of booths so that customers may be individually served. This area is screened from the tempered glass doors by a plant trellis, so that, while activity behind the screen will be apparent, the privacy of the customer is protected. Corrugated glass in the screen is a source of diffused light for the interior.



5,6 OPEN FRONT PLUS FOOD DISPLAY

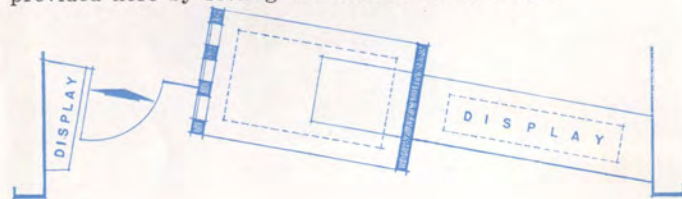
Both the bakery and the grocery have to display food attractively and both have to accommodate a great many customers at peak periods—food shopping is usually the housewife's morning chore. In both these store fronts the food and the activity inside the store are displayed to the passer-by on the sidewalk. In both, featured displays are concentrated in small showcases beside the entrances. In both, the facade is placed at an angle to accommodate customer traffic; this also may serve to minimize reflections of undesirable street scenes. And in both stores the front is the simplest possible transparent screen, designed to afford full protection from weather and dirt, yet to allow the customer to see from outside that the store is clean and attractive. In the bakery, the window display case is designed so that baked goods may be sold directly from it. This practice is not so common in groceries; consequently the back of the grocery display window is almost completely closed.

Materials and Methods



7 EMPHASIS ON WINDOW DISPLAY

The typical women's specialty shop presents a particularly difficult problem to the store-front designer. In its show-window have to be displayed a great variety of items, ranging in size from costume jewelry to suits and dresses. Therefore the front must provide several different kinds of display space, at several different levels so that the merchandise may be shown to best advantage; and the show-window lighting system must be quite flexible to achieve the numerous effects which will be demanded. Room for window shopping is provided here by setting the window at an angle.

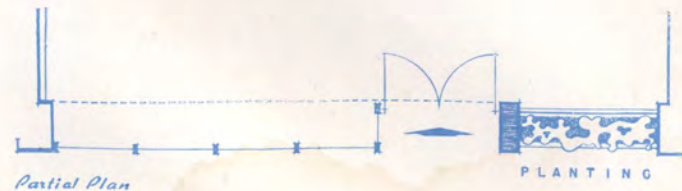


Partial Plan



8 EMPHASIS ON INTERIOR ACTIVITY

This front is designed for a restaurant which affords at least two types of service: table and counter. Counter service would be placed behind the clear plate glass portion of the show-window, at the right. Customers sitting at a counter are more interested in quick service than in privacy. Table service areas would be behind the other portion of the front, which is broken up by horizontal and vertical division bars. These mullions form an apparent, if not a real, separation between diners and passers-by; and yet the entire interior is actually open to sidewalk view.



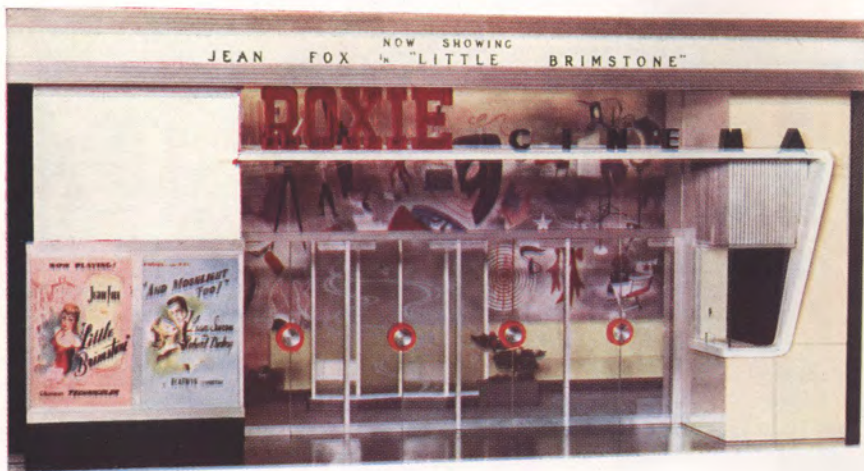
Partial Plan





9, 10 **FRONTS FOR DISPLAYING SMALL OBJECTS**

In the hardware store, left, there is a double problem. Both bulky items (power tools, etc.) and small items (nails, screwdrivers, etc.) have to be displayed; so two types of windows are included. The shoe store has to display in its window merchandise which is relatively small, but we are accustomed to seeing it from above, so the window is low.



11, 12 **FRONTS FOR PLACES OF AMUSEMENT**

We did not formerly regard a theater as a place suitable for an "open" store front, but it is obvious that the movement of people entering for a performance is an inducement to the public to attend. Hence this theater front, all doors, is also all glass. On the other hand, the bar front, severe and almost entirely "closed", limits vision into the establishment.