

# LUXFER FIRE RESISTING GLAZING

The title of  
THE BRITISH LUXFER PRISM  
SYNDICATE LTD.  
was changed to  
LUXFER LIMITED  
July, 1929.



*The Luxfer Co. are Specialists in the manufacture  
of all constructions through which daylight  
is admitted into buildings*

## LUXFER CATALOGUE

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# LUMBER CATALOGUE

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# LUXFER CATALOGUE

Section III.



FIRE-RESISTING  
GLAZING



## FIRE RAVAGE IN THE BRITISH ISLES

£8,000,000



The above figure is a measure in money of the loss due to fire in the British Isles in the year 1928.

When we realise that in nearly every case fires at their outset are trifling in amount and, if prevented from spreading for a short time until fire fighting appliances can be brought into action, the resulting damage is practically negligible, one naturally asks how much of this colossal sum of £8,000,000 would have been saved if none but efficient fire-resisting glazing were used in windows and other places where glass is used.

Windows are the principal danger spots in a modern building, as ordinary glass offers practically no resistance to the rapid spread of fire, whereas a properly designed window of fire-resisting glazing will remain intact and prevent the passage of flames for upwards of one hour.





# LUXFER FIRE-RESISTING GLAZING

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Fire-Resisting Glazing for windows was unknown prior to 1898 when the Luxfer Company introduced an entirely new process of mounting glass in electro deposited copper frames. Its potential value as a means of localising fires in buildings where people congregate in large numbers was speedily recognised and Public Authorities introduced regulations making its use obligatory in certain positions in the case of Theatres and many other buildings. It is now used all over the world and has proved one of the chief factors in preventing the spread of fires in densely populated areas where loss of property and of life have at times been calamitous.

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16, Hill Street, Finsbury, London, E.C.2

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## BEHAVIOUR OF ORDINARY GLASS SUBJECTED TO FLAMES

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When ordinary glass is subjected to flame or great heat it cracks in all directions and quickly falls to pieces. All window glass cracks under such conditions, but experience has shown that small pieces of glass when mounted in a strong frame of incombustible material and in such manner that all edges of the glass are securely gripped by the frame, will not collapse even when split into fragments by the action of fire and water. When mounted in this manner the glass, as the heat increases in intensity, continues to crack and break up into small and still smaller fragments, but these fragments do not fall away until the glass begins to melt.

In order that the glass shall not collapse until the melting point has almost been reached, its superficial area must not exceed 64 times its thickness. Provided the area of the glass is kept within these limits, and every edge is held as in a vice, the broken fragments are tightly compressed into a species of mosaic formed of irregular fragments of glass with jagged interlocking joints which maintain the whole assemblage intact. *But immediately the glass is free to move at the edges the pressure on the various fragments is reduced and collapse takes place.*

**The first essential of a glazing of this type is thus seen to be perfect contact between the metal frame and glass all around the edges of each piece of glass.**

**Absolute contact between glass and metal is necessary ; a more or less imperfect fit with the interstices filled with mastic or other bedding material is of no real value.**

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## WHAT IS LUXFER FIRE-RESISTING GLAZING ?

Luxfer Fire-Resisting Glazing consists of ordinary glass, not less than a quarter of an inch in thickness, mounted in a framework of copper electrically deposited. Glazing made by this process is called *Electro-Glazing*.

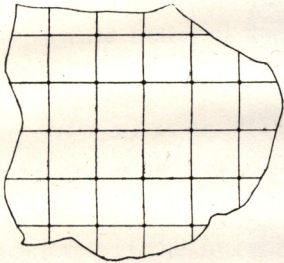


Fig. 1.

## PROCESS OF MANUFACTURE

In the first process of Electro-Glazing the pieces of glass, after having been cut and accurately ground to size, are assembled in the desired form upon a table, with flat strips of copper between their edges (Fig. 1). The inter-sections of the copper strips are touched with solder, and the plate thus formed is transferred to great copper baths for the second process.

Fig. 2 shows an enlarged section of one of the copper strips at this stage. The strip is perfectly flat ; the pieces of glass are pressed tightly up against it, but are held in place only by friction and can easily be pushed out.



Fig. 2.

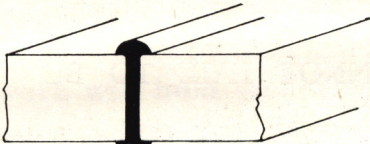


Fig. 3.

The plate remains in the copper bath from thirty to forty hours and copper is deposited along the edges of the flat strips, forming a bead-like flange (Fig. 3) which completely envelops every edge of each glass, fits close up against the surface of the glass and holds each piece with a vice-like grip.

The strength and Thermal endurance of an electro-glazed plate is very remarkable. Its secret is the intimate contact made between the glass and the copper deposit. This contact is so close, that where a glass is broken it is almost impossible to separate the slivers of glass from the copper deposit, even after the body of the glass is all broken out.

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This remarkable property is illustrated in the subjoined photograph of an electro-glazed plate (Fig. 4), in which one of the glasses has been smashed with a hammer.

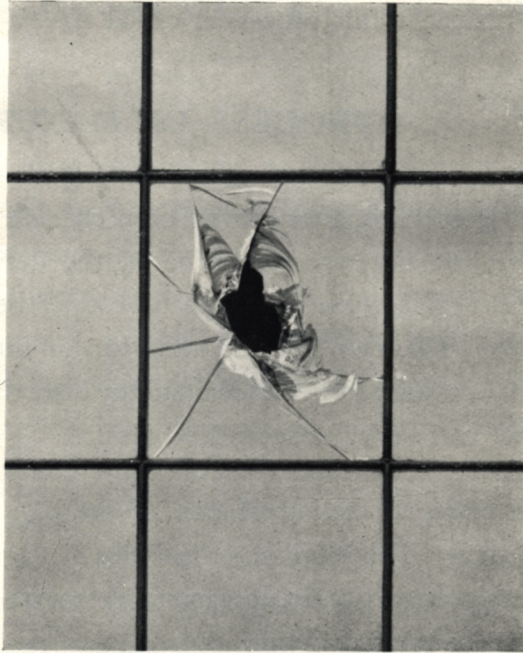


Fig. 4.

BONA FIDE ELECTRO-GLAZING CANNOT FAIL TO BE  
EMINENTLY FIRE-RESISTING.

The process of building up the copper framework in Luxfer Fire-Resisting Glazing by electro-deposition ensures absolute contact of copper and glass along every edge of each piece of glass and the plate when taken from the copper bath is a rigid unit which will not collapse when the glass is repeatedly cracked by any cause whatever. Every such plate must always be eminently fire-resisting ; it cannot be otherwise.

CHEAP IMITATIVE SUBSTITUTES FOR ELECTRO-GLAZING  
POSSESS NO REAL FIRE-RESISTING PROPERTIES.

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The necessary accurate grinding of glass and heavy copper deposit in Electro-Glazing is expensive. A much cheaper form of glazing is that produced by a method of mounting glass in copper "comes" of "I" section. Glazing of this type is marketed under the generic term of *Copper-lights*. In appearance this glazing is very like Electro-Glazing; indeed, so much alike are the two products that only those familiar with the peculiar appearance of copper deposited in mass can distinguish the genuine article; and the substitute material is frequently sold as "Luxfer."

Glazing built up of "I" section comes, *with glasses accurately fitted and heavily deposited* so as to fill entirely the space between the glass and flanges of the "I" comes is a real fire-resisting glazing. But much of the glazing now sold as Copper-lights consists of glass mounted in copper comes of "I" section, soldered at the intersections and then immersed in a copper bath for a period of time only sufficient to mask the soldered joints. The costly processes of fine grinding of glass necessary to ensure accurate fitting and long period deposition are dispensed with. Under these heads alone the cost of production of the simplest forms of glazing is reduced by 1s. 6d. per foot super. Such glazing has practically no fire-resisting properties. The plate is made weather-tight and the separate pieces of glass are held in correct position by a cement worked into the crevices along the edges of the copper comes. *When a piece of glass is broken all the fragments fall away.*

**It cannot be too clearly understood that unless the metal framework will hold securely in position the slivers of glass remaining after a hole has been driven through a section as illustrated in Fig. 4, the glazing will not withstand fire to a degree approaching anywhere near to that demanded by Public Authorities, nor afford more than a trivial fraction of that measure of protection which the user of fire-resisting glazing is led to rely upon.** Architects have thus available a simple and sure means of satisfying themselves as to the Thermal endurance of any specimen of fire-resisting glazing submitted for their approval.

**Electro-deposition is the only practical means of securing that intimate contact between copper and glass which is necessary to secure stability in the glazing when subjected to great heat or flames.**

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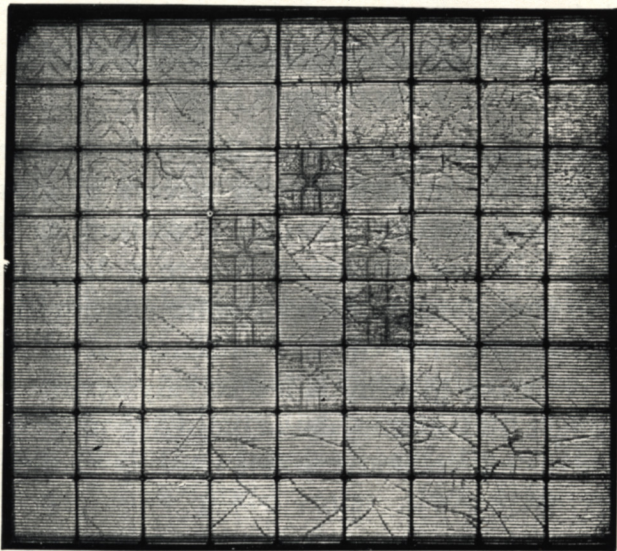


## THERMAL ENDURANCE OF LUXFER GLAZING

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Luxfer Fire-Resisting Glazing will withstand fire and flame until the glass actually melts. It has proved its value over and over again in actual fires, where it has kept windows intact and prevented the spread of fire for a period long enough to enable people inside the building to escape and the usual fire-fighting machines to be brought into action.

When fitted in *teak* frames the glazing will not permit the passage of flame until after the teak has been completely destroyed to a depth of more than an inch.



LUXFER PLATE FROM BARBICAN FIRE, APRIL, 1902.

NOTE.—The glass though cracked remains in position.

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## TESTS

Electro-Glazing has been thoroughly tested all over the world, and approved and adopted as a fire-preventing or fire-stopping material for doors and windows where fireproof doors and windows are required by Municipal and other regulations. Such tests have been made by Municipal and State Officers, Public and Scientific Societies, and by intending purchasers in the United States and Canada, in various parts of Great Britain, in France, Belgium, the German Empire, Austria and elsewhere, invariably with the result of satisfying everybody that **Electro-Glazing** as made under our patents, whether the glass itself be **stained, plain, or prismatic**, is **fire-resisting** and an invaluable protection against fire wherever used in either doors, windows or partitions of buildings.

### THE TEST OF THE BRITISH FIRE PREVENTION COMMITTEE

On April 19th, 1899, in the presence of a number of distinguished officials, the British Fire Prevention Committee carried out a severe test at their testing station, in London, to prove the fire-resisting qualities of Copper Electro-Glazing. The results were highly gratifying, as will be seen from the following extracts from the report of the Committee :—

#### Object of Test.

“To record the effect of fire and water upon Electro-Glazed Sheets of Luxfer Window Prisms built into teak casements.

“The duration of the test was to be 40 minutes. The first 15 minutes the temperature was to be gradually raised to 1,000° Fahr. Water was then to be turned on to the outside of the Prisms for a period of two minutes. The temperature for a further period of 25 minutes was to be gradually increased to 1,500° Fahr. At the expiration of this period, water was to be applied on the inside for three minutes.”

#### Summary of Effect.

“The Luxfer Window Prisms, in squares of 4 in. × 4 in., remained in position. No glazing bars were broken or appreciably oxydized.”

#### At STUTTGART, December 3rd, 1902.

Temperature between 800 and 900 degrees Centigrade.

#### Summary of Effect.

“The test has shown that Electro-Glass Windows are extraordinarily fire-proof and sufficiently withstand the pressure of water.

“Apart from cracks there was no alteration in the shape nor in the joining of the panes.”

#### At DRESDEN, July 17th, 1902.

Temperature 1,200 degrees Centigrade.

#### Result of the Test.

“That the three kinds of Glass in their frames are fire-resisting and fire-checking.

“That Luxfer Diamond Glass, 20 millimetres thick, in squares of 15 × 10 centimetres, even at the highest temperature will resist a strong jet of water.”

#### At PRAGUE, November 13th, 1901.

“The test showed that Electro-Glass and Luxfer Prisms are fire-proof at a temperature below 1,000° Centigrade.”

*Other Tests have been made at Munich, Paris, Boston, Chicago, Leipzig, Charlottenburg, and other important centres in Europe and America.*

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## REGULATIONS OF PUBLIC AUTHORITIES

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As a result of tests of Luxfer Manufactures, Electro Copper Glazing was scheduled as a fire-resisting material in the London Building Act and by the Fire Offices Committee.

Every other Public Authority accepts Luxfer Glazing as a fire-resisting material.

### L.C.C. REGULATIONS

No plate shall exceed 2 feet in either dimension. No piece of glass shall exceed 16 square inches. Thickness of glass shall not be less than  $\frac{1}{4}$  inch.

The Board of Trade permit the use of Luxfer Fire-Resisting Glazing in fire-resisting bulkheads, partitions and doors on passenger-carrying steamships.

### BOARD OF TRADE REGULATIONS

Luxfer Glazing capable of withstanding a fire of considerable fierceness and a temperature of 1,500° Fahr. for one hour.

Minimum thickness of glass  $\frac{3}{8}$  inch.

The regulations of Public Authorities vary somewhat, so that it is desirable in cases under their control to obtain their sanction.

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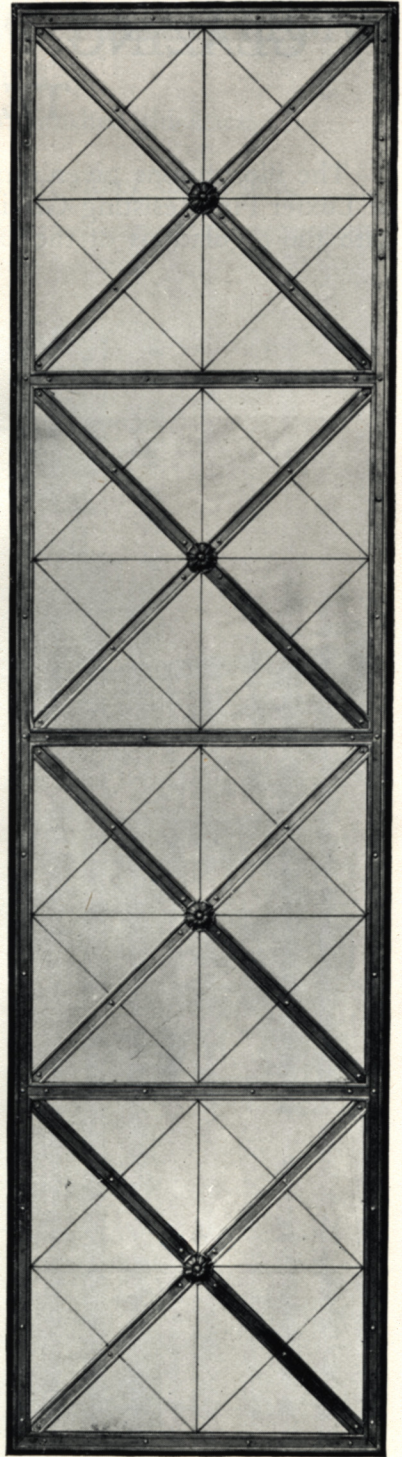
THE L.C.C. REGULATION limiting the size of Luxfer Plates does not preclude the use of this glazing in large windows or screens, as an ordinary framework of hardwood or metal may be used to receive the glazing. The Architect thus has a large measure of freedom in design.

The illustration shows Luxfer Glazing mounted in a metal frame, making one large panel for use in Swing Doors.

The frame here shown is of steel faced with copper, with bronze rosettes at the intersections.

Luxfer have various sections in bronze, copper, and steel for the making of frames to divide up large areas of Electro Glazing.

Hardwood astragals 2 in. thick with  $\frac{1}{2}$  in. rebate for glass may be used.



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## GLAZING FOR FIRE-RESISTING TEAK DOORS

The illustrations given on this and the opposite page show the adaptation of Luxfer Fire-Resisting Glazing to Doors and Screens strictly in accordance with the regulations of the London County Council.



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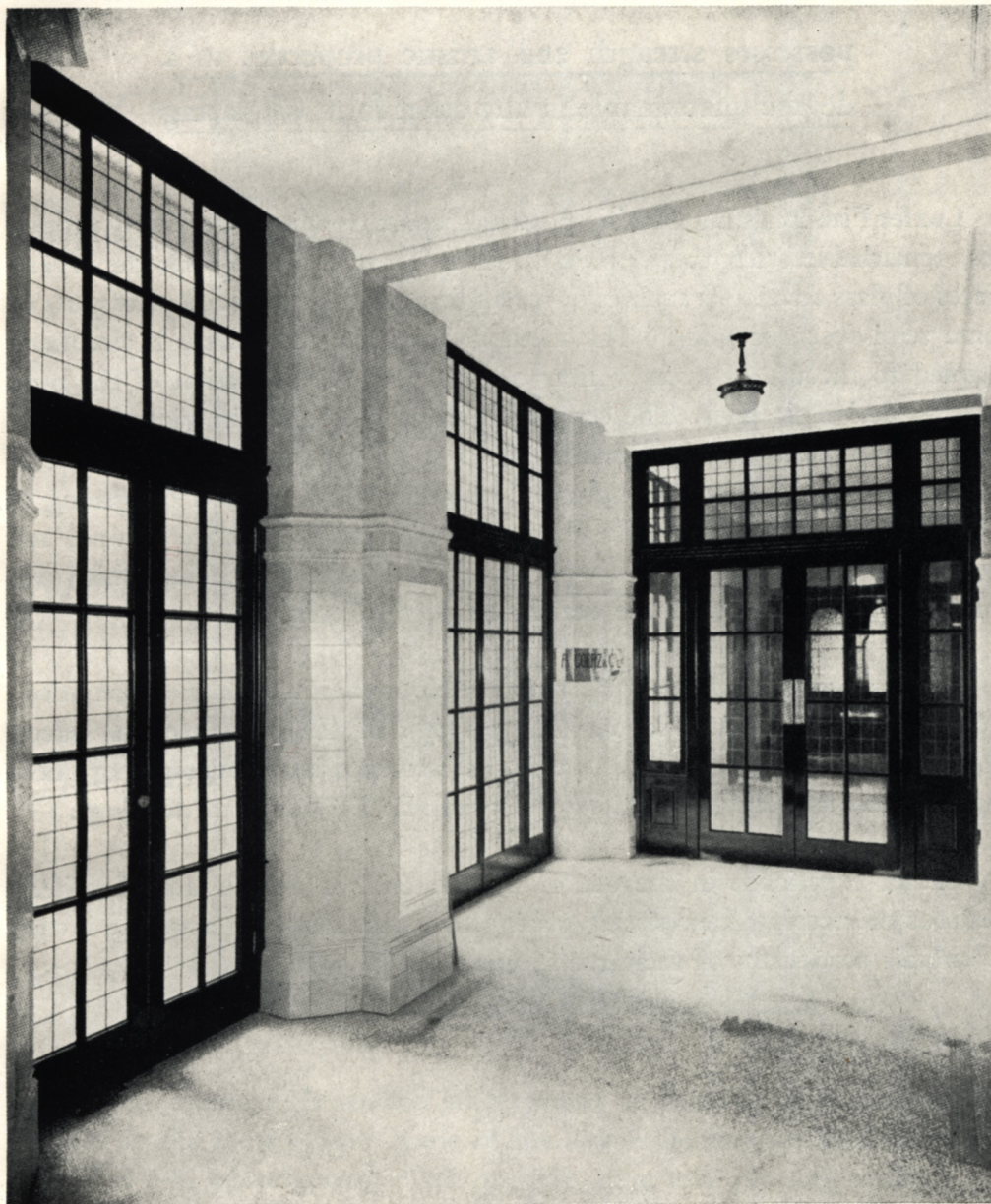
## LUXFER FIRE-RESISTING PARTITIONS

### L.C.C. REGULATIONS

Hardwood framing not less than  $1\frac{3}{4}$  ins. finished thickness.

Glazing rebates in frames  $\frac{1}{2}$  in.

Electro glazed plates not to exceed 2 ft. in either dimension.



LUXFER FIRE-RESISTING GLAZING TO PARTITIONS AND DOORS  
AT PINNERS HALL, E.C.

16, Hill Street, Finsbury, London, E.C.2

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## ELECTRO - GLAZING

possesses strength and artistic properties to a degree unattainable in any other form of glazing

Luxfer Fire-Resisting Glazing possesses, apart from its fire-resisting properties, remarkable strength (*see* p. 34). In its most common form the several pieces of glass are simple squares or rectangles, either of polished plate glass or some semi-obscured glass. The method of glazing, however, is peculiarly adapted to the use of every variety of glass and the formation of the most intricate designs in line. The copper comes can be varied in width from the finest lines barely exceeding one-sixteenth of an inch up to three-quarters of an inch. The Architect has thus at his command a method of glazing in which he can assemble at will glass of every tint and surface texture, and so arrange and graduate the copper comes as to secure a glazing which will form an integrant part of the decoration of the room.

Some slight idea of the variety obtainable is indicated in the illustrations shown in the following pages. No *real idea* of the more pleasing effects obtainable in the glazing can, however, be conveyed in photographs or drawings, because the subtle beauties of glass cannot be shown in drawings.

Luxfer experience in the use of this material is unique, and Architects desirous of securing fire-resisting glazing of a decorative character are invited to submit particulars of their requirements.

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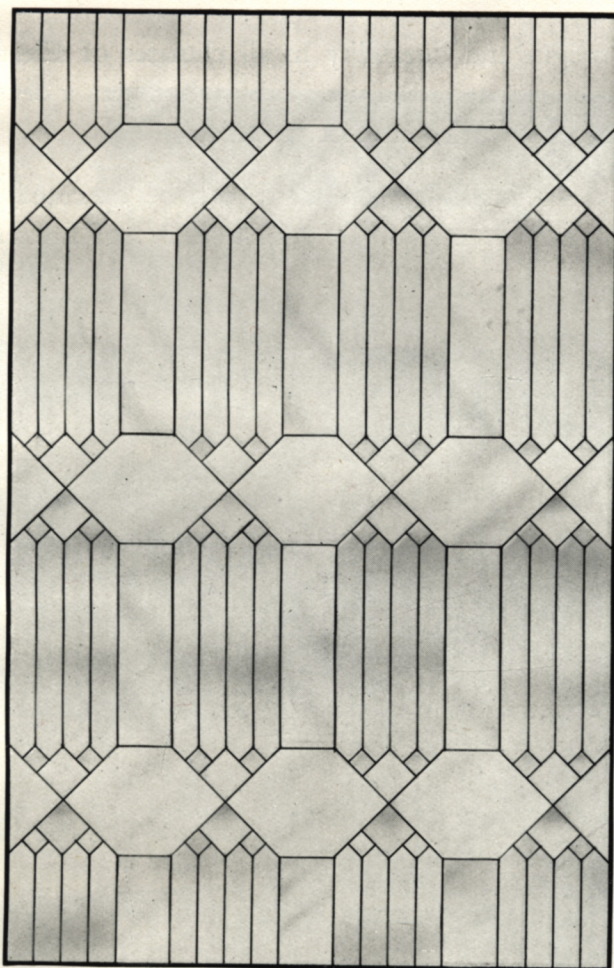
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Electro-glazed plates of clear glass in geometrical designs embodying narrow strips and small pieces of glass as here illustrated possess a charm and refinement absolutely unattainable in any other medium. The copper comes are perfectly straight, the intersections precise, and the form of each and every separate piece of glass is correctly outlined.



Various coloured glasses and white glasses of different surface texture can be used in the same plate. Some of the simple geometrical designs shown on pp. 36-7-8, when treated in this manner, give very pleasing results.

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## ELECTRO-GLAZING

### A DECORATIVE MATERIAL

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The great strength and durability in all climates of Electro-Glazing has led to a large development in the use of this glazing as a decorative material where fire-resisting properties are not essential.

No design is too intricate, and many can be executed that would be impossible in any other material. (*See Section IV. of Luxfer Catalogue.*)



MESSRS. LEWIS'S LTD., MANCHESTER.

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In the photograph below is seen a simple form of Luxfer Glazing in various patterns of white glass.

This is a successful example of the use of Electro-Glazing, where it gives a touch of metal in a refined form in conjunction with fine woodwork.



THE ENTRANCE DOOR TO MANAGER'S ROOM.  
MANCHESTER & COUNTY BANK, PICCADILLY, MANCHESTER.

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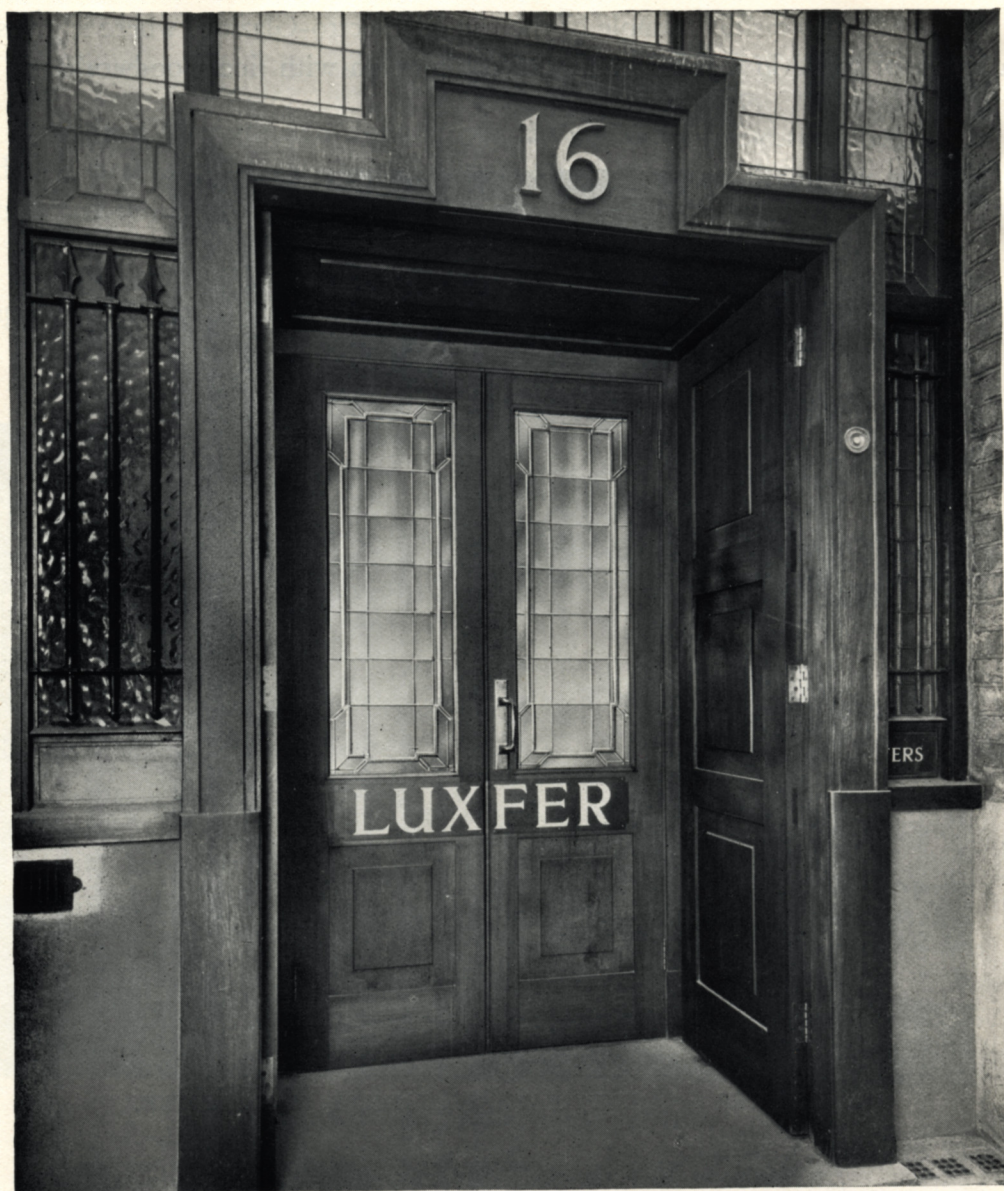
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Very pleasing results are obtainable in Electro Glazing by the use of metal comes of different widths in designs of simple character. The Door Panels shown on this page and the illustrations on pages 19, 20, and 22 are examples.



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## LUXFER GLAZING IN BRONZE FRAMES



ALLIED NEWSPAPERS LIMITED, MANCHESTER.





The photograph below shows a simple and effective treatment of Luxfer Glazing in hardwood framing.

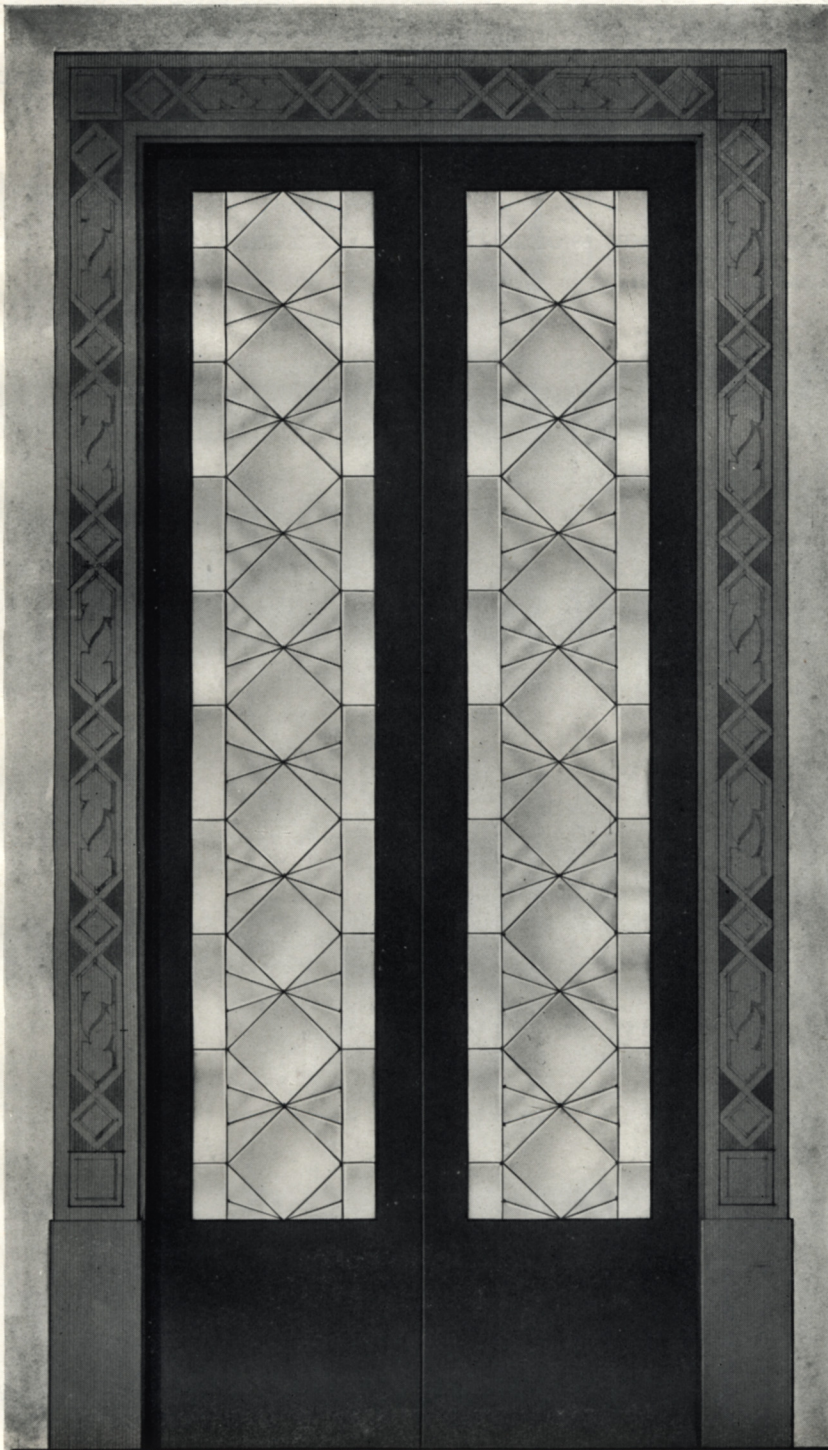


The design on opposite page shows Luxfer glazed door panels as supplied to Sassoon House, Shanghai.

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In rebuilding the Magasins du Printemps, Paris, after the destructive fire in 1922, Luxfer Glazing was employed throughout the entire building except for the Boulevard Haussman façade. The illustration on opposite page shows doors leading to a staircase.

In Paris comparatively large electro-glazed plates are allowed.

The illustration below is of an Entrance Vestibule to a Paris bank, executed by the Luxfer Company.



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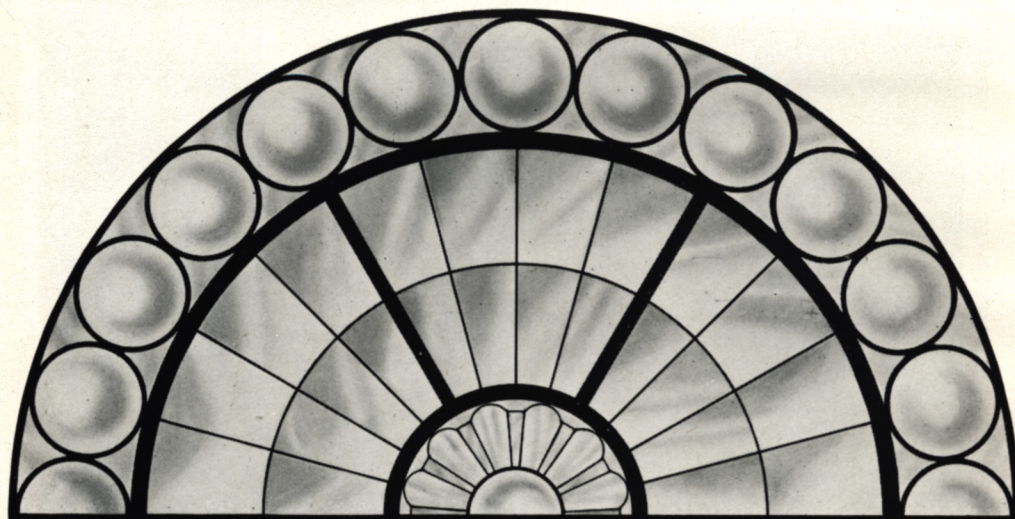
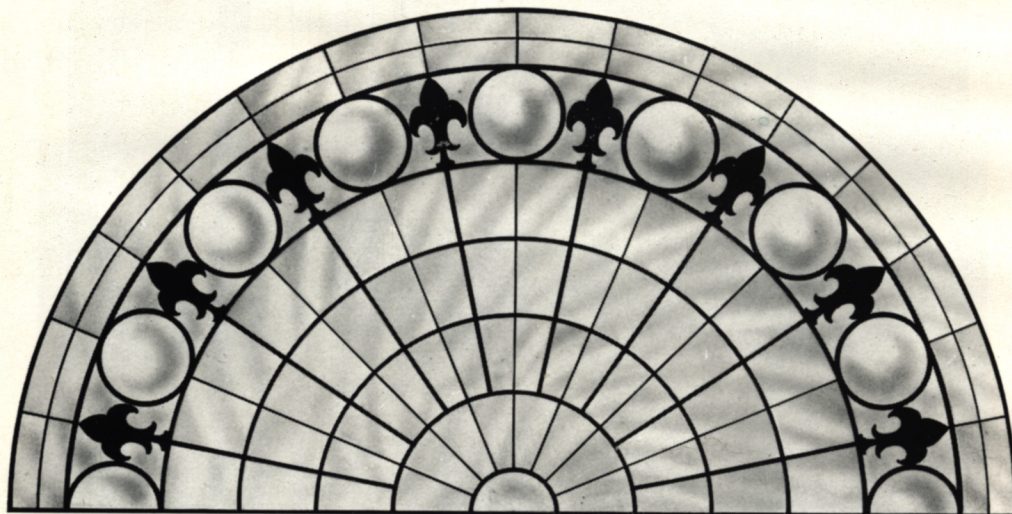
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## FANLIGHTS

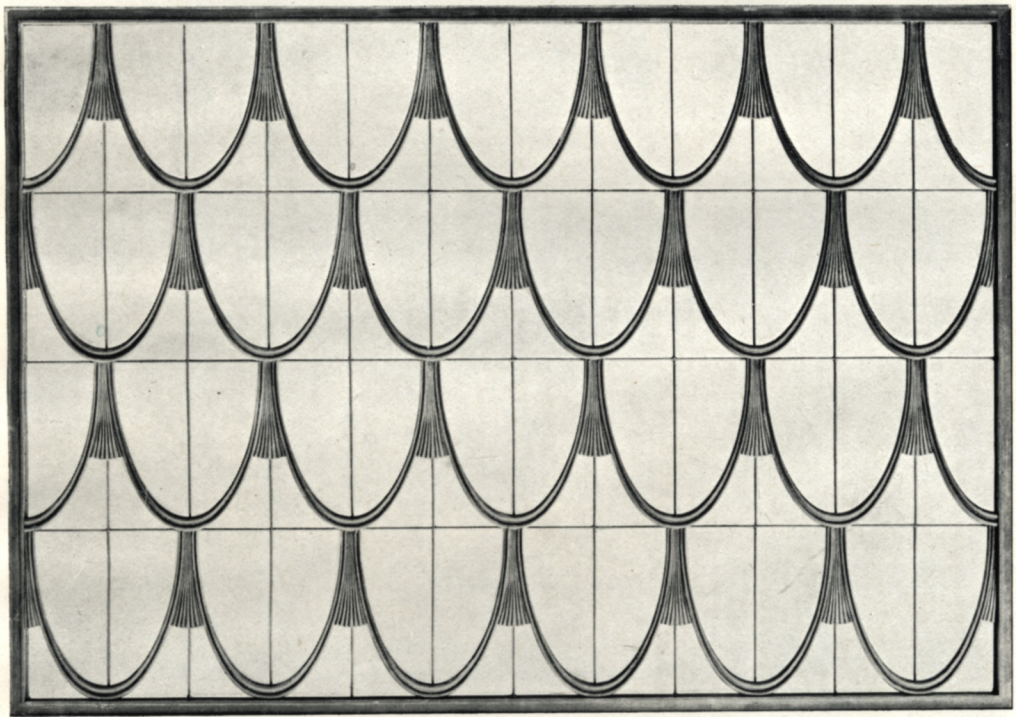
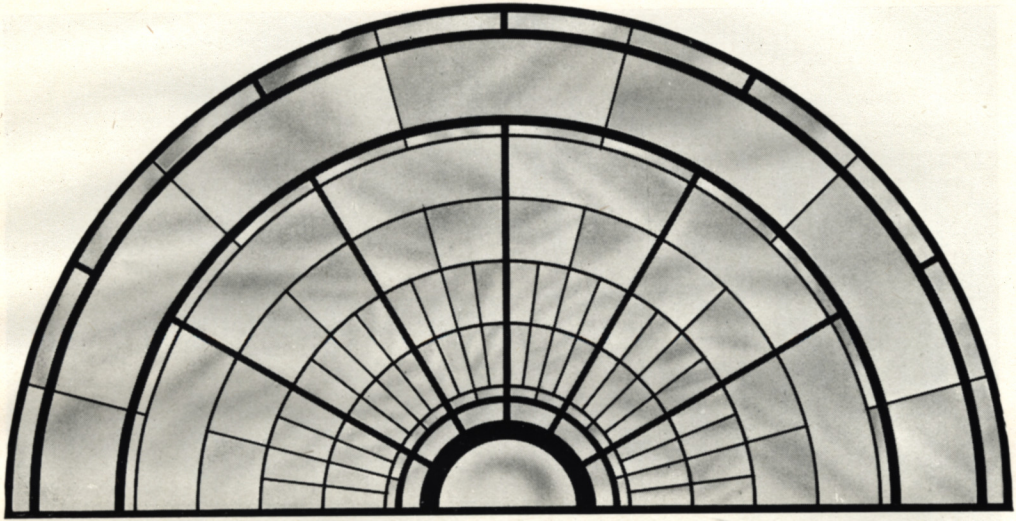
Luxfer Glazing is well adapted for Fanlights where strength and refinement are essential.



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This elegant plate is one of many supplied for the Administrative Building of Señor S. I. Patino, Cochabamba, Bolivia.

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ENTRANCE DOORS AND FANLIGHT TO PRIVATE HOUSE,  
CHARTFIELD AVENUE, PUTNEY.

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LUXFER GLAZING AUX TROIS QUARTIERS, PARIS.

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## STAIRCASE

EXAMPLES OF LUXFER FIRE-RESISTING GLAZING.

The window on page 29 is a particularly fine example of Luxfer craftsmanship.



MESSRS. D. H. EVANS LIMITED, OXFORD STREET, LONDON.





## WINDOWS



ANGLO-SOUTH AMERICAN BANK, OLD BROAD STREET, LONDON.





## GLAZED DOMES AND CEILING LIGHTS

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The Luxfer Company has had a large experience in the manufacture of Glazed Domes and Ceiling Lights ranging in diameter from 2 to 200 feet.

Examples of Luxfer work are to be found in many ships and in every Continent and nearly every Country.

Luxfer specialise in the production of bronze and iron framing and glazing for Ellipsoidal and other geometrical surfaces of the second degree where trueness of line is so essential to the production of correct and satisfactory results.



DOMES AT LLOYDS AND NATIONAL PROVINCIAL FOREIGN BANK, PARIS.

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The plan of this Dome is an irregular octagon of **50 ft.** diameter. The problem to be solved was to provide a glass which would effectively keep out the blinding Sun rays in Calcutta without recourse to blinds. This was achieved by the use of specially made neutral tinted glass with selected pot metals in which rich purple and golden tints predominated for the decorative features. No idea of the rich colouring and great beauty of this glazing can be shown in photographs. The golden hue appears black in the photograph, the rich and varied purples appear neutral, whilst the neutral tinted main body appears almost white.



**BRITISH INDIA STEAM NAVIGATION CO., CALCUTTA.**

*Photo of central portion of Dome, looking up.*





MESSRS. WHITELEYS, LONDON.

## FIRE-RESISTING GLAZING IN MODERN STORES

Modern Shop fronts consist mainly of large sheets of plate glass behind which articles, often of a highly inflammable character, are exhibited. To illuminate these articles numerous electric lamps are used, and a short circuit in the lighting system is likely to ignite some highly inflammable article and spread in a few moments to everything inflammable in the vicinity of the outbreak. Unless the show materials in such windows are effectively shut off from the rest of the floor, the fire spreads rapidly into the building with often calamitous results. Such fires also, in a few minutes, cause collapse of the plate glass windows and the flames spreading outwards and upwards pass through the windows of the floor above, thus speedily carrying destruction to the whole building.

All risk of danger from this source is avoided by the use of Luxfer Fire-Resisting Screens forming separate enclosures for display purposes, and by glazing the windows of all upper stories with Luxfer Fire-Resisting Glass.

This efficient means of fire protection has been employed in Messrs. Whiteley's Stores and other large modern buildings.

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WINDOW ENCLOSURE SHOWING ENCASEMENT OF  
LUXFER FIRE-RESISTING GLAZING.



SCREENS BETWEEN DEPARTMENTS FITTED WITH  
LUXFER FIRE-RESISTING GLAZING.

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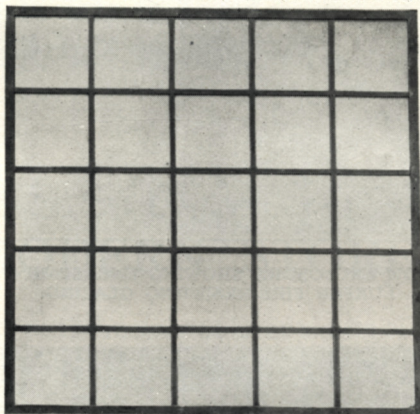


## ELECTRO-GLAZING FOR SHIPS

The remarkable strength of Luxfer Electro Glazing, apart from its relatively high degree of Thermal endurance which has led to its use in fire bulkheads and other parts of ocean going passenger carrying ships with the approval of the Board of Trade, makes this glazing pre-eminently suitable for use in positions exposed to sudden and violent wind pressures and other shocks to which ships are frequently subjected.

### RESULT OF A TEST CARRIED OUT ON A TYPICAL LUXFER ELECTRO-GLAZED PLATE.

The subjoined photograph is of an electro-glazed plate, one of a number supplied for a large steamship.



This plate was made in accordance with the Board of Trade regulations applicable to fire-bulkheads.

The dimensions of the plate are 1 ft. 8 ins.  $\times$  1 ft. 8 ins.

The plate was bedded in mastic in an angle steel frame and beaded in so as to obtain conditions identical to those of actual practice.

The frame was supported in a horizontal position and a load of sand and iron totalling 1,840 lb. was placed on the plate. All of this load was directly on the glazing, no part of it was on the supporting frame.

**RESULT OF TEST**—The plate deflected 0.26 ins., two glasses spalled at the corners. On removal of the load the plate went back nearly to its normal plane. **The plate thus safely withstood a normal pressure of 688 lbs. per foot super.**

16, Hill Street, Finsbury, London, E.C.2

Telephone : Clerkenwell 0444. Inland Telegrams : Luxfer, Finsquare, London. Foreign Telegrams : Luxfer, London





## LUXFER FIRE-RESISTING SCREENS in Bronze Frames for the T.S.S. "Belgenland"



16, Hill Street, Finsbury, London, E.C.2

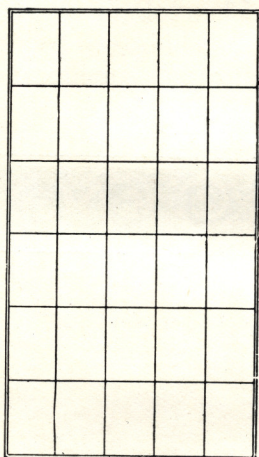
Telephone : Clerkenwell 0444. Inland Telegrams : Luxfer, Finsquare, London. Foreign Telegrams : Luxfer, London



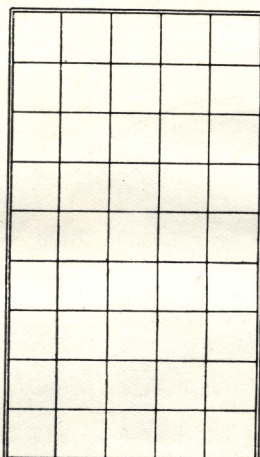


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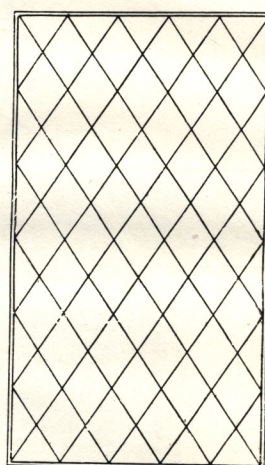
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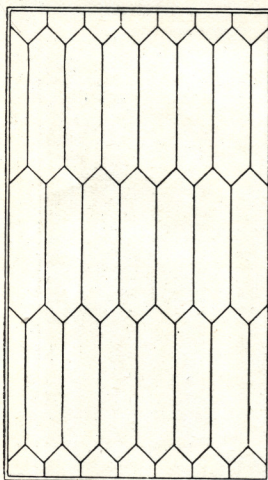
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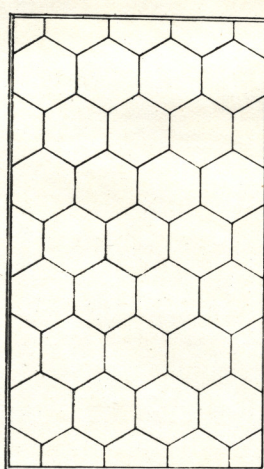
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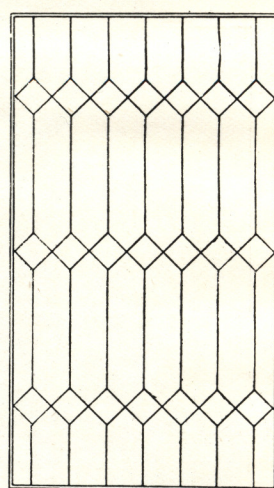
204



205



206



*Prices on receipt of enquiry with particulars detailed on page 42.*

16, Hill Street, Finsbury, London, E.C.2

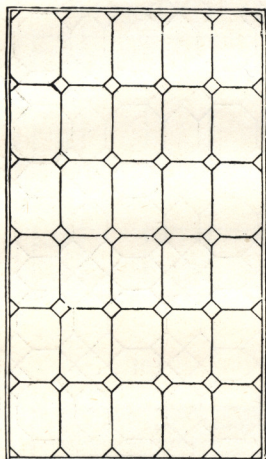
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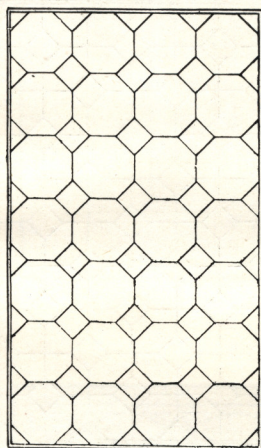


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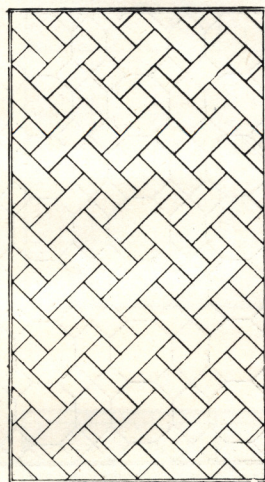
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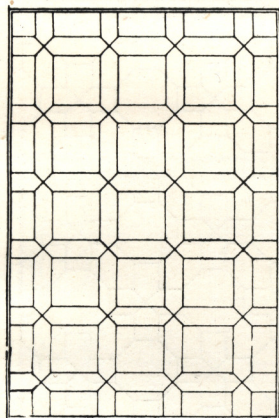
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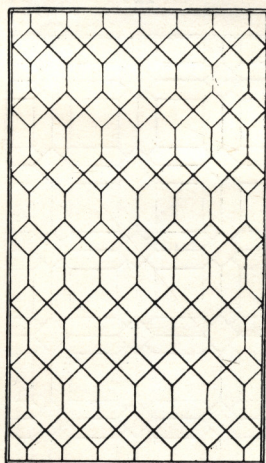
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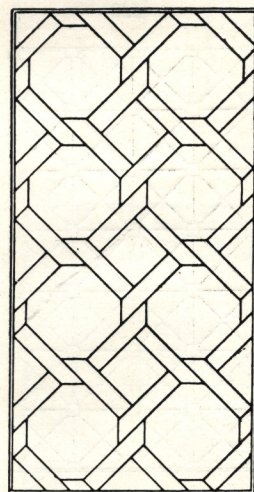
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212



213



*Prices on receipt of enquiry with particulars detailed on page 42.*

16, Hill Street, Finsbury, London, E.C.2

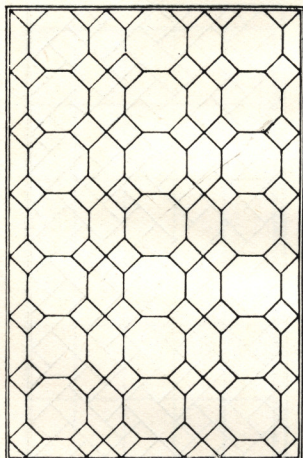
Telephone : Clerkenwell 0444. Inland Telegrams : Luxfer, Finsquare, London. Foreign Telegrams : Luxfer, London



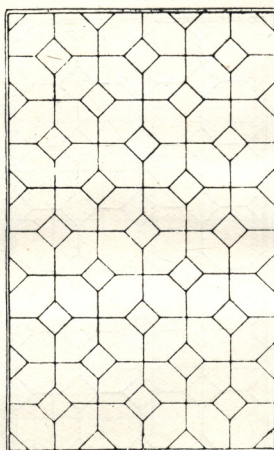


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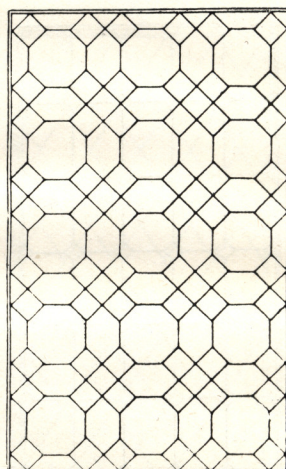
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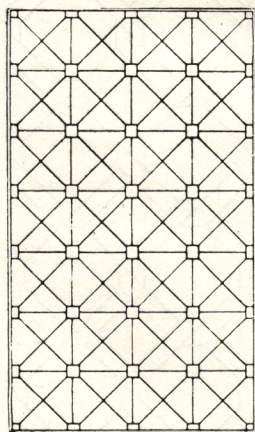
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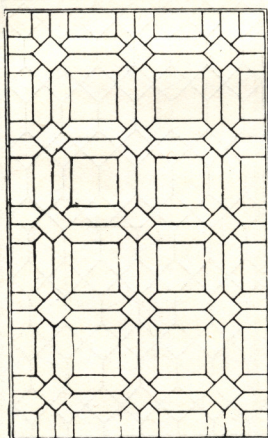
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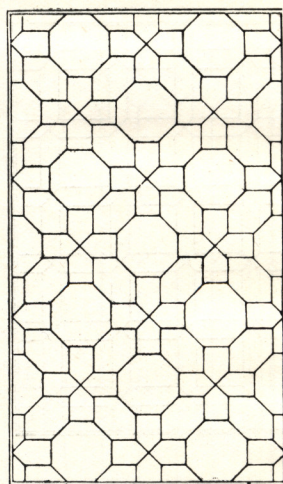
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221



222



*Prices on receipt of enquiry with particulars detailed on page 42.*

16, Hill Street, Finsbury, London, E.C.2

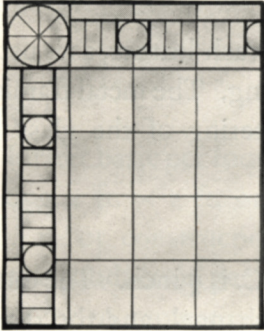
Telephone : Clerkenwell 0444. Inland Telegrams : Luxfer, Finsquare, London. Foreign Telegrams : Luxfer, London



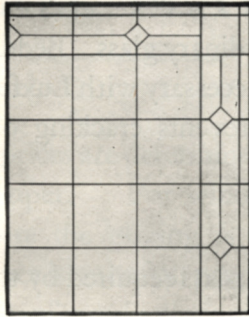


## BORDER DESIGNS

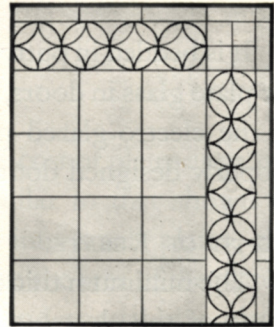
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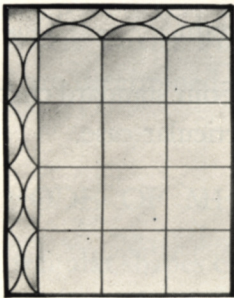
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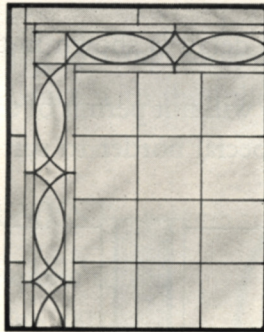
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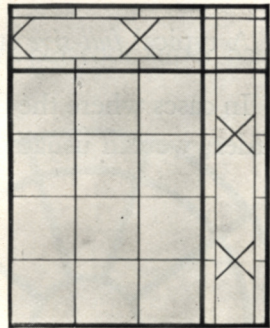
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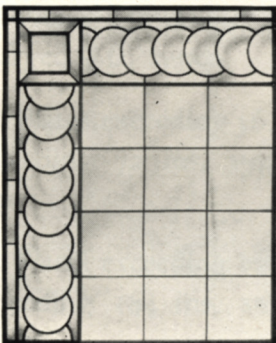
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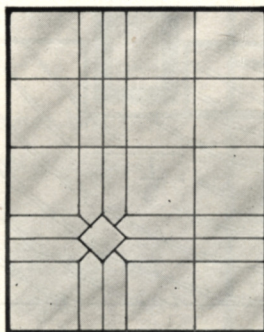
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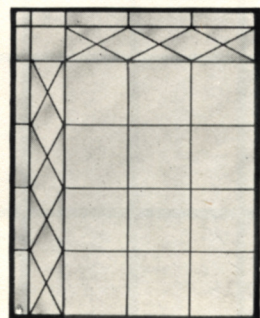
106



107



108



*Prices on receipt of enquiry with particulars detailed on page 42.*

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Telephone : Clerkenwell 0444. Inland Telegrams : Luxfer, Finsquare, London. Foreign Telegrams : Luxfer, London





## FIXING DETAILS

Luxfer Fire-Resisting Glazing ought always to be secured with beads.

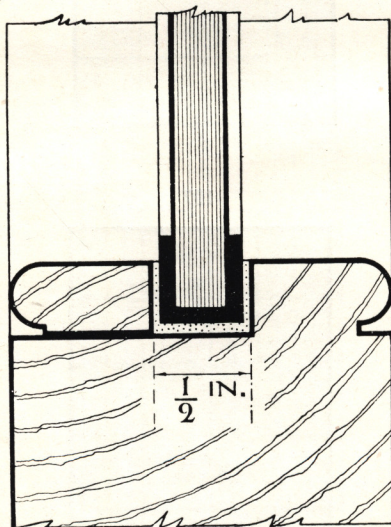
It is bedded in putty, like ordinary glass. Bedding in wash-leather, as is usual for plate glass in doors, is not necessary with Luxfer Glazing. The metal framing of the electro-glazed plates prevents cracking or splintering of the glass in properly designed doors.

### DEPTH OF REBATE.

The minimum thickness of glass required by the L.C.C. is  $\frac{1}{4}$  inch. The outer frame of the electro-glazed plate consists of a copper channel, and the depth of the rebate in the sash or other framing must allow for the overall thickness of this outer frame.

A typical *full-size* standard detail is shown in the diagram.

In cases where the framing will not permit of the use of our standard channel border, we can usually fit a special border to suit the particular case.



FULL SIZE SECTION OF WOOD  
FRAME AND FIRE-RESISTING  
GLAZING, SHEWING REBATE.

16, Hill Street, Finsbury, London, E.C.2

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## MEASUREMENT OF VERY SMALL PLATES

---

Luxfer basic per foot super prices are determined on the cost of plates approximating 2 ft.  $\times$  2 ft. or 4 ft. super. For windows similar to that shown in Fig. 10 or constructions where the glazing is cut up into small plates, the cost of production per foot super is out of all proportion to the area of the plates. In order to represent the cost of production of small and special size plates in terms of superficial area, it is necessary to employ arbitrary minimum measurements.

Where Luxfer Fire-Resisting Glazing is supplied on a per foot super basis, areas are determined in accordance with the following :—

### MODE OF MEASUREMENT.

Irregular shapes charged square to the largest dimensions, curved lines extra.

Parts of inches charged as inches.

Plates not exceeding 36 ins. super charged  $\frac{1}{4}$  ft. super.

Plates exceeding 36 ins. super but not exceeding 72 ins. super charged  $\frac{1}{2}$  ft. super.

Plates exceeding 72 ins. super but not exceeding 144 ins. super charged 1 ft. super.

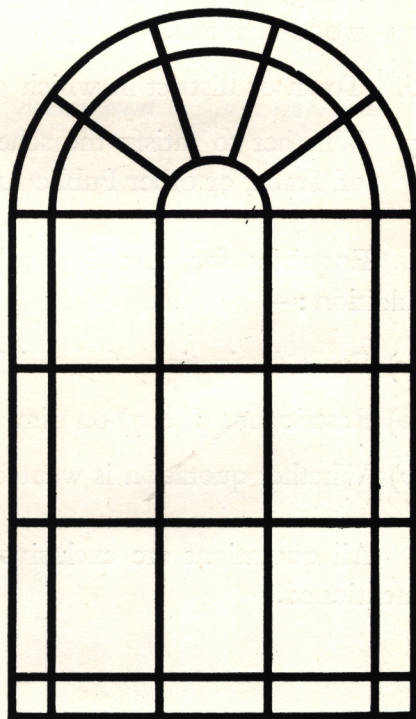


Fig. 10.

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## ENQUIRIES

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Enquiries for Luxfer Fire-Resisting Glazing to be used in the *British Isles* should state clearly :—

1. Kind of glass ; whether *clear* or ordinary *semi-obscured* glass. See p. 44 *et. seq.*
2. Precise particulars of *coloured* or *special* glasses.
3. Dimensions of plates and whether *sight* or *overall*.
4. Particulars of design if other than plain rectangles are required.
5. Whether for delivery only or fixed complete. If quotation is to include fixing, state whether putty glazed or beaded, and whether beads are of wood or metal.
6. Town or district in which glazing is to be used.
7. Whether to satisfy the scheduled requirements of the L.C.C., the Board of Trade, or other Public Authority.

Enquiries for abroad should give the particulars 1 to 4 above and in addition :—

- (a) Exact destination of material.
- (b) Restrictions (if any) on dimensions and weight of cases.
- (c) Whether quotation is wanted F.O.B. London or C.I.F. foreign Port.

All quotations are exclusive of Foreign Import Duties unless specifically mentioned.

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## ORDER PARTICULARS

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Orders for Electro-Glazing should be accompanied with detailed information as asked for under Enquiries.

Working sizes may be given in either of the following ways :—

- (a) Give exact sight sizes and depth of rebate.
- (b) Overall sizes of plates and depth of rebate.
- (c) Tight rebate sizes and depth of rebate.

IMPORTANT.—*Specify clearly which method of measurement has been employed.*

Give dimensions of height *first*.

Where a number of electro-glazed plates are used in combination, a line diagram showing the arrangement of plates is very useful and often necessary.

---

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ROUGH CATHEDRAL.

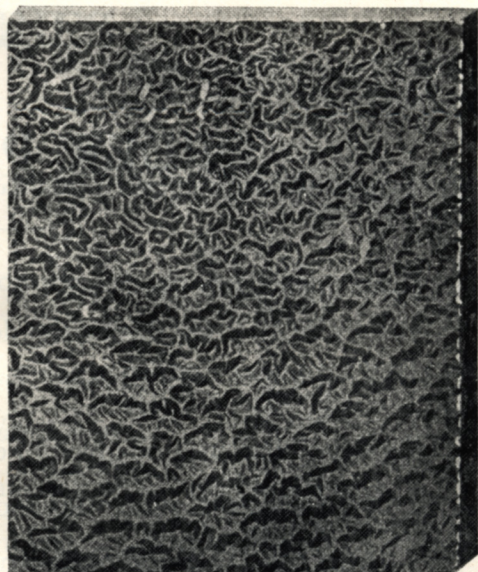


Fig. G.

Fire-Resisting Glazing to meet L.C.C. requirements must be  $\frac{1}{4}$  in. thick.

Glass of that substance in the patterns shown on this and the next page is specially made for the Luxfer Company by Messrs. Chance Bros. & Co.

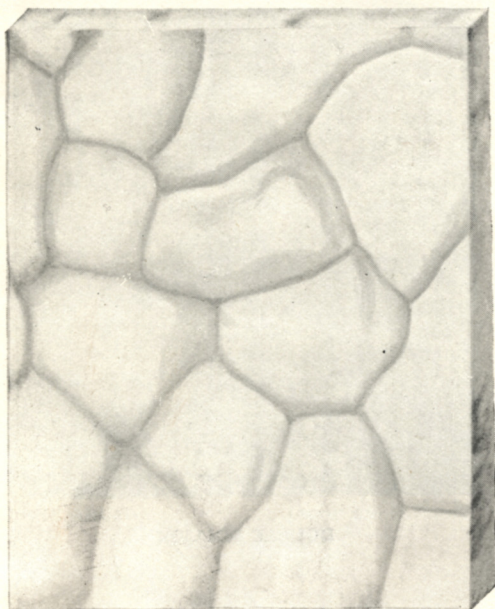
The patterns shown on pages ~~38-39~~ are made by Messrs. Pilkington Bros. Ltd. 46-47

Architects, when selecting figured glasses for fire-resisting glazing, should ask to see samples of  $\frac{1}{4}$  in. glass, as the figure in this substance is somewhat less distinct than in the thinner glass.

16, Hill Street, Finsbury, London, E.C.2

Telephone : Clerkenwell 0444. Inland Telegrams : Luxfer, Finsquare, London. Foreign Telegrams : Luxfer, London

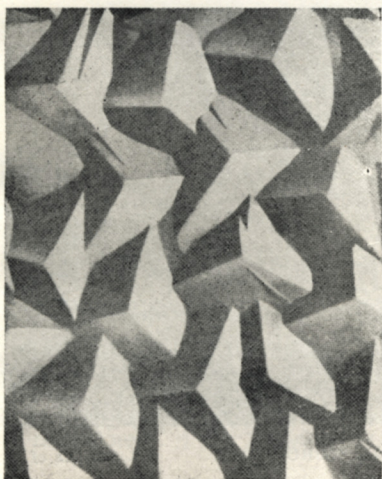




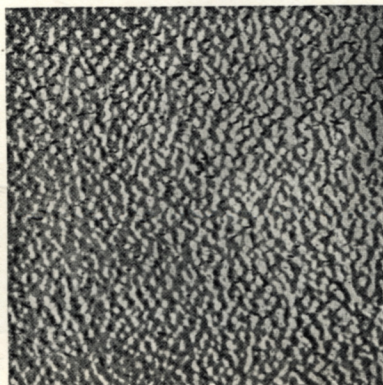
FLEMISH (Small Pattern).



FLEMISH (Large Pattern).



GLISTRE.

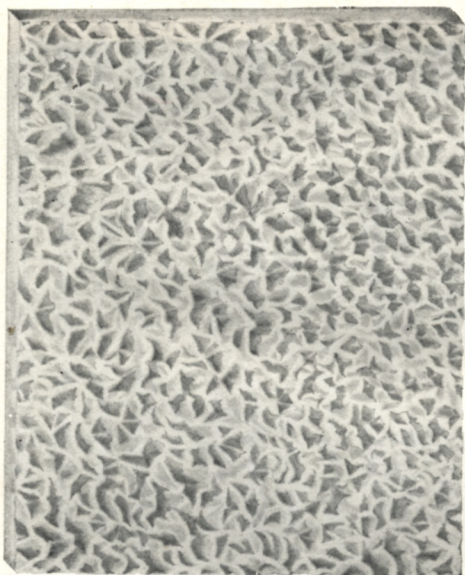


STIPPOLITE.

16, Hill Street, Finsbury, London, E.C.2

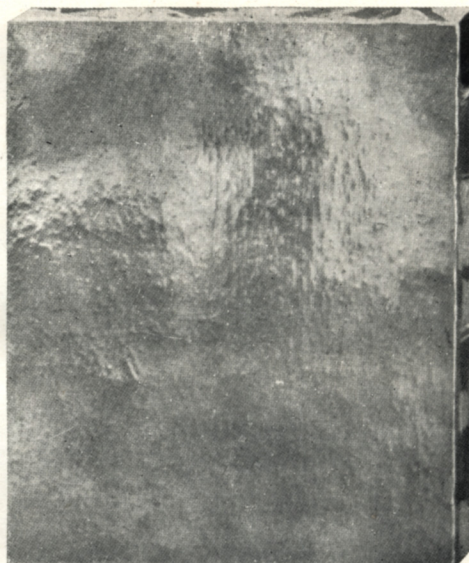
Telephone: Clerkenwell 0444. Inland Telegrams: Luxfer, Finsquare, London. Foreign Telegrams: Luxfer, London



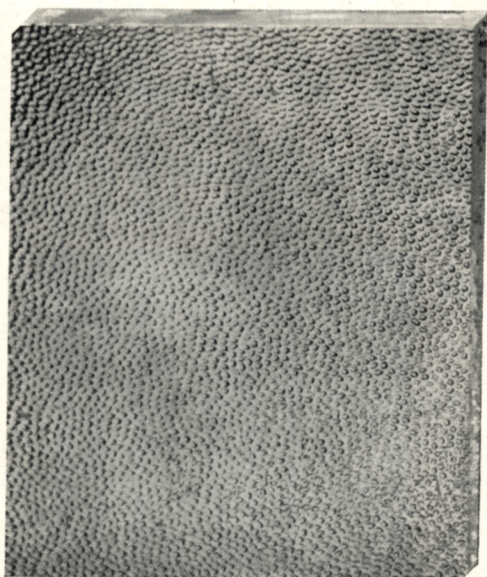


LARGE MOROCCO

(Actual size of Pattern)

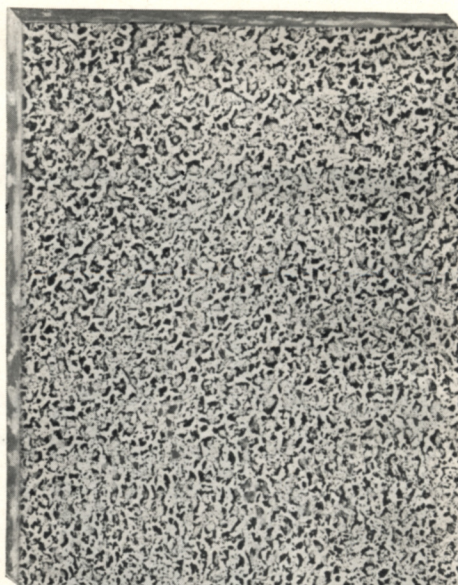


DOUBLE ROLLED.



PINHEAD MOROCCO

(Actual size of Pattern)



SMALL MOROCCO

(Actual size of Pattern)

16, Hill Street, Finsbury, London, E.C.2

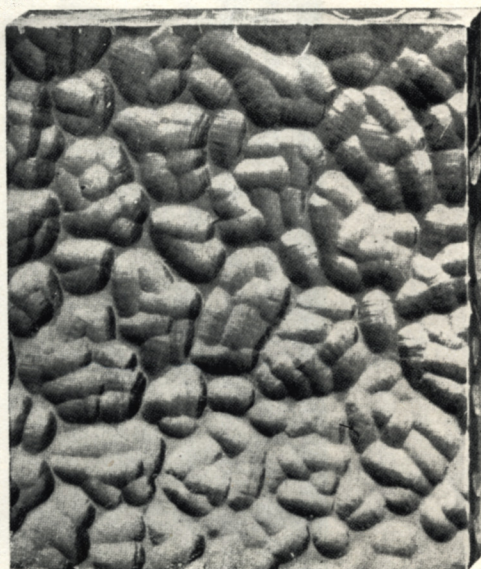
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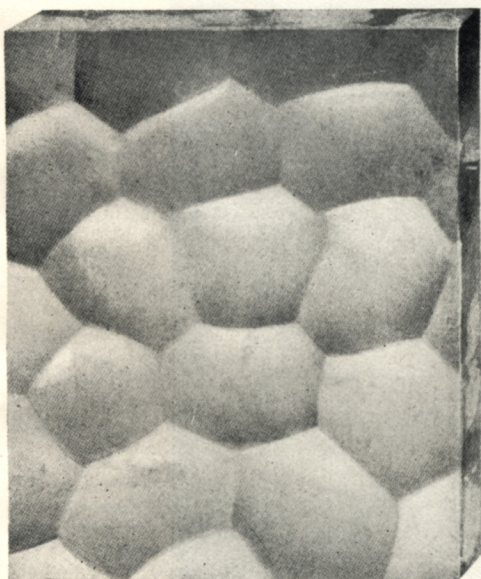
**LARGE ARCTIC.**

(Actual size of Pattern)



**SMALL ARCTIC**

(Actual size of Pattern)



**LARGE HAMMERED**

(Actual size of Pattern)



**SMALL HAMMERED**

(Actual size of Pattern)

16, Hill Street, Finsbury, London, E.C.2

Telephone : Clerkenwell 0444. Inland Telegrams : Luxfer, Finsquare, London. Foreign Telegrams : Luxfer, London





EXAMPLE OF LUXFER DECORATIVE WORK.

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