

Oct. 29, 1940.

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2,219,699

DOUBLE GLAZED WINDOW CONSTRUCTION

Filed June 8, 1939

Fig. 1.

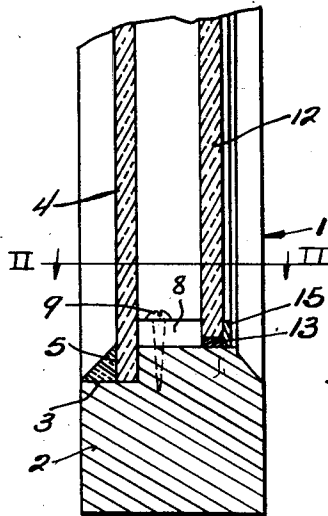


Fig. 3.

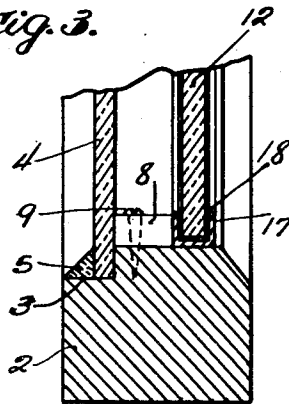
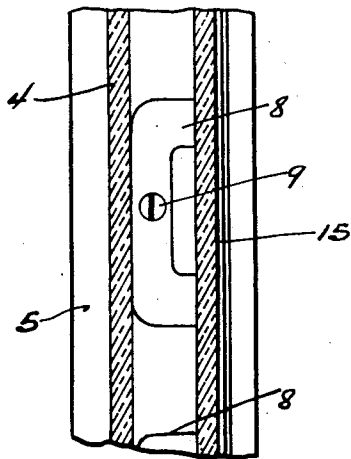


Fig. 2.



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2,219,699

DOUBLE GLAZED WINDOW CONSTRUCTION

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Application June 8, 1939, Serial No. 278,097

4 Claims. (Cl. 20—56.5)

The present invention relates to double glazing and more particularly to a novel means of positioning an auxiliary pane of glass in the so-called insulated window constructions.

A primary object of the invention is the provision of means whereby auxiliary panes of glass may be readily positioned in existing window constructions without excessive alteration of the sash and frame assemblies.

Other objects and advantages of the invention will become more readily apparent from the following detailed description of a preferred embodiment of the invention, when taken in conjunction with the accompanying drawing.

In the drawing, Figure 1 is a fragmentary vertical sectional view through a window sash, showing the application of my invention; Figure 2 is a fragmentary horizontal sectional view thereof taken substantially along the line II—II of Fig. 1; and Figure 3 is a fragmentary vertical sectional view of another form of the invention.

In the drawing a window 1 is defined by sash members 2 provided with a rabbeted groove 3 in which is positioned a pane of glass 4 secured by means of a strip 5 of putty, or other similar material. This form of construction is well known and is widely employed in ordinary buildings.

At spaced intervals along the inner periphery of the sash 2, magnets 8 are secured by means of screws 9 of brass or other non-magnetic material. The magnets 8 are of such size that they do not occupy entirely the upper edge of the sash 2. Immediately adjacent the magnets 8 is positioned a second pane 12 of glass which is seated upon cushioning strips 13 of cork, or other resilient material. A metallic retainer strip 15 lies to the outer side of the second pane of glass 12 in the same horizontal plane of the magnets 8, and due to the magnetic flux emanating therefrom is attracted thereto, thus securing the pane 12 of glass in the sash.

Another form of my invention is shown in Figure 3, wherein the auxiliary pane 12 of glass is provided with an annular frame 17 of metal, substantially of U-shape in cross section, a layer 18 of suitable cement serving not only to secure the frame to the glass pane but also to cushion the edges of the glass. The frame 17 contacts the magnets 8 directly and the auxiliary pane is thus releasably secured in the sash.

The discovery of a new aluminum, iron, nickel, cobalt, alloy from which permanent magnets of small size, but possessing great magnetic intensity can be manufactured, has rendered possible the present invention. At the same time, it should be understood that there is no intention

to restrict the present invention to any particular magnetic material, or form of magnet.

If it is desired, the cushioning member 13 may be of such size that it will form an effective seal preventing communication of the air entrapped between the spaced plates of glass and the atmosphere. However, since the auxiliary pane 12 of glass may be readily removed from the sash for purposes of cleaning it is not necessary that a positive seal be obtained.

It will be apparent that various modifications in the size, shape and arrangement of the elements disclosed are possible without departing from the spirit of the invention or the scope of the appended claims.

What I claim is:

1. A double glazed window construction comprising a sash, a pane of glass seated in the sash, a plurality of magnets secured at spaced intervals along the inner periphery of the sash, a second pane of glass positioned within the sash and spaced from the first pane by the magnets, and metallic means coacting with the magnets releasably securing the second pane of glass in the sash.

2. A double glazed window construction comprising a sash, a pane of glass seated in the sash, a plurality of magnets secured at spaced intervals along the inner periphery of the sash, a second pane of glass positioned within the sash and spaced from the first pane by the magnets, and a metal retainer strip lying outside of the second pane of glass coacting with the magnets and releasably securing the second pane of glass in the sash.

3. A double glazed window construction comprising a sash, a pane of glass permanently seated in the sash, a plurality of magnets secured at spaced intervals along the inner periphery of the sash, a second pane of glass positioned within the sash and spaced from the first pane by the magnets, and a metal strip lying outside of the second pane of glass in the same horizontal plane as the magnets coacting therewith and releasably securing the second pane of glass in the sash.

4. A double glazed window construction comprising a sash, a pane of glass seated in the sash, a plurality of magnets secured at spaced intervals along the inner periphery of the sash, and a second pane of glass provided with an annular metal frame positioned within the sash and spaced from the first pane by the magnets, the second pane of glass being releasably secured in the sash through the attraction of the magnets for the metal frame thereof.

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