G. C. HESTER.

STORE FRONT CONSTRUCTION.

APPLICATION FILED JAN. 4, 1916.

1,363,735. **Patented Dec. 28, 1920.**

Fig. 1.

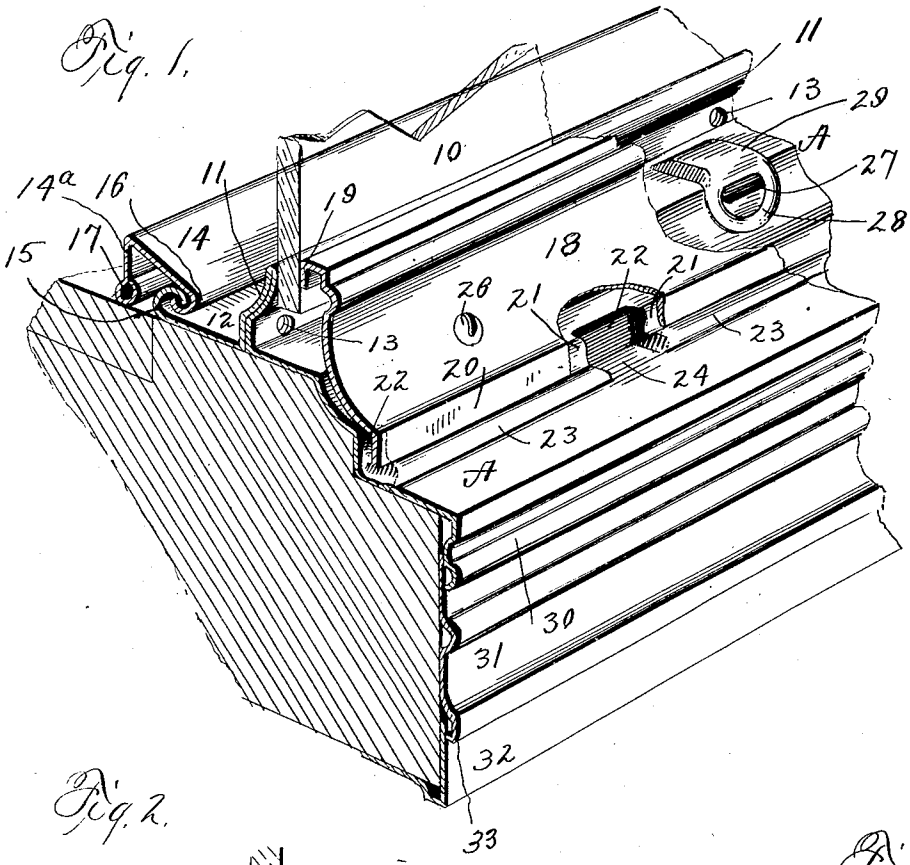


Fig. 2.

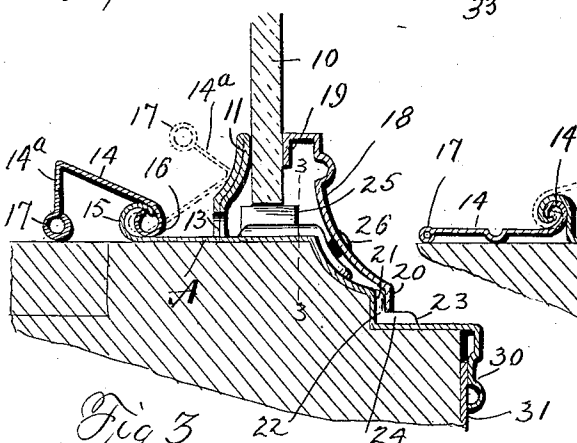


Fig. 4.

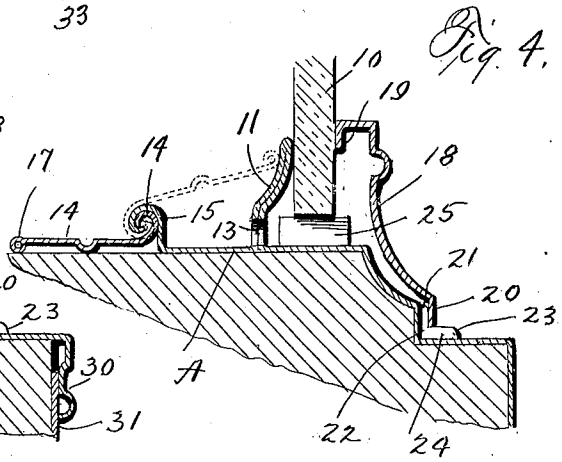
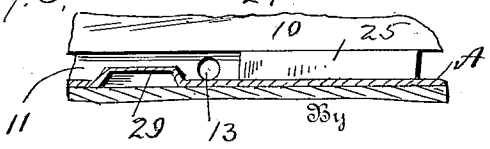


Fig. 3.



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STORE-FRONT CONSTRUCTION.

1,363,735. Specification of Letters Patent. **Patented Dec. 28, 1920.**

Application filed January 4, 1916. Serial No. 70,187.

To all whom it may concern:

Be it known that I, GEORGE C. HESTER, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Store-Front Constructions, and do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to sash, or glass settings, and more particularly to such a sash for store front construction of the ventilating type, and my object, generally stated, is to provide a construction of sash which can be made of sheet metal and will have the characteristics of inexpensiveness of manufacture; afford a support for the glass which will safeguard against breakage; provide controllable ventilation to the end that when desired the circulation of air, which is important in such constructions, may be had and yet objectionable admission of dust to the interior of the window prevented; ample drainage capacity; and other characteristics which will be evident to those skilled in the art and which are indicated in connection with the detailed description of the construction hereinafter set forth.

In the accompanying drawings—

Figure 1 is a perspective view of a portion of a sash bar embodying my invention showing the condition of installation;

Fig. 2 a cross section, the shutter for controlling the ventilation being shown in full lines in position for free ventilation, and in dotted lines in position to obstruct the entrance of dust through the ventilating openings;

Fig. 3 is a detail view in vertical section on the lines 3—3 of Fig. 2;

Fig. 4 is a view in cross section corresponding with Fig. 2, showing a somewhat different form of my invention.

In the main, or principally, my sash comprises two members between which the margin, or edge of the plate of glass is clamped, one of which members, especially when considering the case of the bottom of the glass, supports the latter at its bottom edge and at the inner side of the glass provides a gutter to receive water of condensation, or wash water flowing down the inner side of the glass and from which gutter it is discharged through suitable passages or openings also serving as air passages for ventilation. The member A, for convenience I shall term the sill member, since it is applied to the surface of the window sill, and it is made of sheet metal, preferably copper, that is given a configuration and extent by which the upper and the outer surfaces of the sill are covered, and at the inner side of the plate of glass 10 it has a vertically extending rib, or flange 11, which at its upper edge bears against the plate of glass on its inner side and thence curves on a slight bend inward and downward so that any water running down over the inner face of the glass will be received by it and shed, or deflected to the inside of said flange being received by a horizontally inwardly extending portion 12 that covers the top of the wood sill. In order that said inner glass-supporting flange 11 may be made an integral part of the sill member A, notwithstanding its location intermediate the front and back edges of the latter and to give it such body as will enable it to be an adequate support for the glass and yet possess a desirable limited degree of resiliency, said flange is formed by folding and doubling the sheet material so as to constitute two similarly shaped abutting members that lie in contact throughout their extent and which are joined at the upper edge of the flange by the bend, or fold at such edge. Thus formed, said flange is self-supporting, that is to say, it requires no screws, or other supplemental devices in the nature of braces, and yet while having this characteristic and affording a support for the glass possessing all needed rigidity, it has that degree of flexibility which is desirable in plate glass settings which enables it to snugly engage the glass surface and give it that "life," or slight degree of elasticity which is considered important to reduce the danger of breakage of the glass. At intervals along its length said flange, or web 11 has horizontal holes, or perforations 13 reaching to the horizontal portion of the member A in rear and in front of said web through which water shed by the web may freely pass to the outside of the web and thence through suitable channels, or openings, hereinafter described, to escape to the outside of the window. The presence of these openings adds to the importance of the double thickness which my mode of constructing said web, or flange provides since the dimunition of strength in consequence of the formation

of the opening is more than compensated for by such double thickness.

The openings 13 besides providing for the discharge of water, also constitute air passages for ventilation, and it is desirable at times to stop the passage of air through these openings especially when dust is apt to be brought through them to the inside of the window and for this reason I provide a shutter 14 in the form of a strip of sheet material, such as copper, which is hinged to the inner edge of the sill member A so that at will it may be swung to a position extending from the curved, or bent upper portion of the glass-supporting flange, or web, that is a position above the holes and thereby obstruct the inward passage of air and dust through the openings. The inner edge of the sill member A is carried upward and curved so as to provide in effect a partial tube 15 so that a longitudinal slit, or space is left between its free edge and the contiguous portion of the member A, and one edge of the shutter is formed into a tubular bead 16 that fits within said tube 15, the shutter extending tangentially, or radially through said longitudinal slit, or space so that a stout but freely moving hinge connection is provided for the shutter. The other, or free edge of the shutter is also curled to form a tubular bead 17 which has the effect of stiffening the shutter and forming a handle by which it may be conveniently grasped to shift it to and from its two positions and to enhance its appearance. Preferably, the shutter has an angular formation in cross section, which, when it is in the closing position shown in dotted lines in Fig. 2, provides a portion 14^a that extends downward and outward from said handle forming bead to a point where the shutter rests against the bent portion of the glass-engaging flange. This arrangement, since it locates the handle forming bead away from the glass, renders more convenient its being caught hold of by the fingers. When the shutter is in the open position shown in full lines in Figs. 1 and 2, the handle-forming bead resting upon the floor at, or about the level of the top of the sill member causes the main portion of the shutter to incline downward and outward so that any water splashing, or tending to splash inward will be caught by such surface and directed down to the top of the sill member A and prevent it from reaching the point between the wood floor and the sill member in rear of the tubular part 15 of the sill member. Said tubular part 15 of the sill member constitutes a wall, or obstruction that prevents any water which reaches the surface of the sill member inside of the flange, or web 11 from passing inward.

On its outer side the plate of glass 10 is engaged by a strip 18, preferably of sheet copper in the form of cove molding, which, at its upper edge has a vertical preferably down-turned flange 19 that gives a good bearing against the glass and at its lower edge it has a vertical rib, or flange 20 that rest upon upwardly embossed ribs, or projections 21 on the sill member A which are separated at intervals by spaces 22 that form openings for the outlet of water and the inward passage of air, and on its inner side said bottom rib rests against horizontally projecting ribs, or bosses 23 on a vertical portion of said sill member A which correspond in length and position to said bosses 21 and are separated by vertical spaces 24 that register with the spaces 22, and thus, as the cove molding 18 at all other points is spaced from the sill member A there are continuous spaces, or openings leading from the holes 13 in the glass-engaging web, or flange 11 beneath the edge of the plate of glass 10 which rests upon separate setting blocks 25 of rubber, or other suitable material, and is supported above the top of the sill member A.

The outer strip, or cove molding 18 is secured in place and made to clamp the glass against the inner web, or flange 11 by means of screws 26, which at intervals lengthwise of the strip pass through holes therein and through holes 27 in the sill member A into the sill. The holes 27 in the sill member are surrounded by an embossed ridge 28, substantially ring form, with a horizontal enlargement 29 immediately below the glass so that access of water to the wood of the sill around the screw is prevented; and said horizontal enlargements, since they constitute vertically raised surfaces above the portion of the sill member immediately below the edge of the glass, compel the glazier in cutting the plate of glass to cut it a size that will make impossible the contact of the edge of the glass with the sill member, a thing which might seriously impair, or altogether obstruct the passage of water and air beneath the glass. Said bosses also prevent the settling of the glass to an extent that would cut off ventilation and drainage and the effect of embossing the sheet metal to provide the raised portions in question is to add to the stiffness of the structure.

In all essential respects the form of my invention shown in Fig. 4 is similar to that shown in other figures, the only difference being that the shutter does not have the angular form in cross section shown in the other figures, but it has the roll, or curve at one edge to form the hinge connection with the sill member and the roll, or curl at its other free edge to form a tubular bead that constitutes a handle and also when in contact with the plate glass-engaging web or flange 11 serves to intercept water that may pass down over the inner side of said flange, or web and enable it to seep, or pass downward between the two parts.

For covering the vertical face of the sill member in order to allow for variation in the vertical dimensions of the outer face thereof, instead of having the vertical flange 30 sufficiently deep to cover the entire face, I extend it only partially downward and lap its lower edge over the upper edge of a metal strip 31, whose lower edge in turn laps over the upper edge of a similar strip, or a bottom strip 32. By making the strips 31 units, and comparatively narrow, it will be seen that a number of them can be employed, where the vertical face of the sill member requires it, and, hence, the workman on the job can suit the metal cover to the size of the sill member, which is apt to vary, especially when it is a transom bar, because of the difficulty of getting mill-work made accurately to sizes ordered. The lower edge of the strip 31 is in the form of an offset flange 33 so that it may readily lap over the top edge of the adjacent member below.

Having thus described my invention what I claim is—

1. A glass setting for store front construction comprising inner and outer glass-engaging members, the inner glass-engaging member being composed of a vertically extending web, or flange formed of a double thickness of sheet metal, the sheet extending forward and back at the bottom thereof in opposite directions, said web extending from such extensions upward and forward and having contact with the glass only at the upper portion of the web, said web constituting a resilient support for the glass.

2. A glass setting comprising inner and outer glass-engaging members, the inner glass-engaging member being composed of a vertically extending web, or flange formed of a double thickness of sheet metal, the sheet extending forward and back at the bottom thereof, and horizontally extending holes being provided through said member for the passage of air and water to opposite sides thereof in opposite directions, said web extending from such extensions upward and forward and having contact with the glass only at the upper portion of the web, said web constituting a resilient support for the glass.

3. A glass setting comprising inner and outer glass-engaging members, said inner member being a vertically extending web, or flange and perforated to provide air passages, and a hinged shutter to control said air passages, the shutter hinge comprising a tubular projection placed inwardly away from said web, or flange and having a longitudinally extending slit, or space, and a bead on the shutter within such tubular extension.

4. A glass setting comprising inner and outer glass-engaging members, said inner member being a vertically extending web, or flange and perforated to provide air passages, and a hinged shutter to control said air passages, the shutter hinge comprising a tubular projection placed inwardly away from said web, or flange and having a longitudinally extending slit, or space, and a bead on the shutter within such tubular extension, said shutter being formed of sheet metal and having a bead on its free edge.

5. A glass setting comprising inner and outer glass-engaging members, said inner member comprising a vertical flange at the inside of the glass provided with horizontally extending holes, and a portion extending outwardly therefrom beneath the glass and forward beyond the same and provided with spaced vertically extending and horizontally extending bosses, the outer member resting upon said vertically extending bosses and against said horizontally extending bosses.

6. A glass setting comprising a sill member, sheet metal sash thereon, one of which has a flange extending downwardly over the front face of said member and a plurality of strips one below another lapping at lower and upper edges, and the top one being lapped by said flange.

In testimony that I claim the foregoing I have hereunto set my hand.

GEORGE C. HESTER.