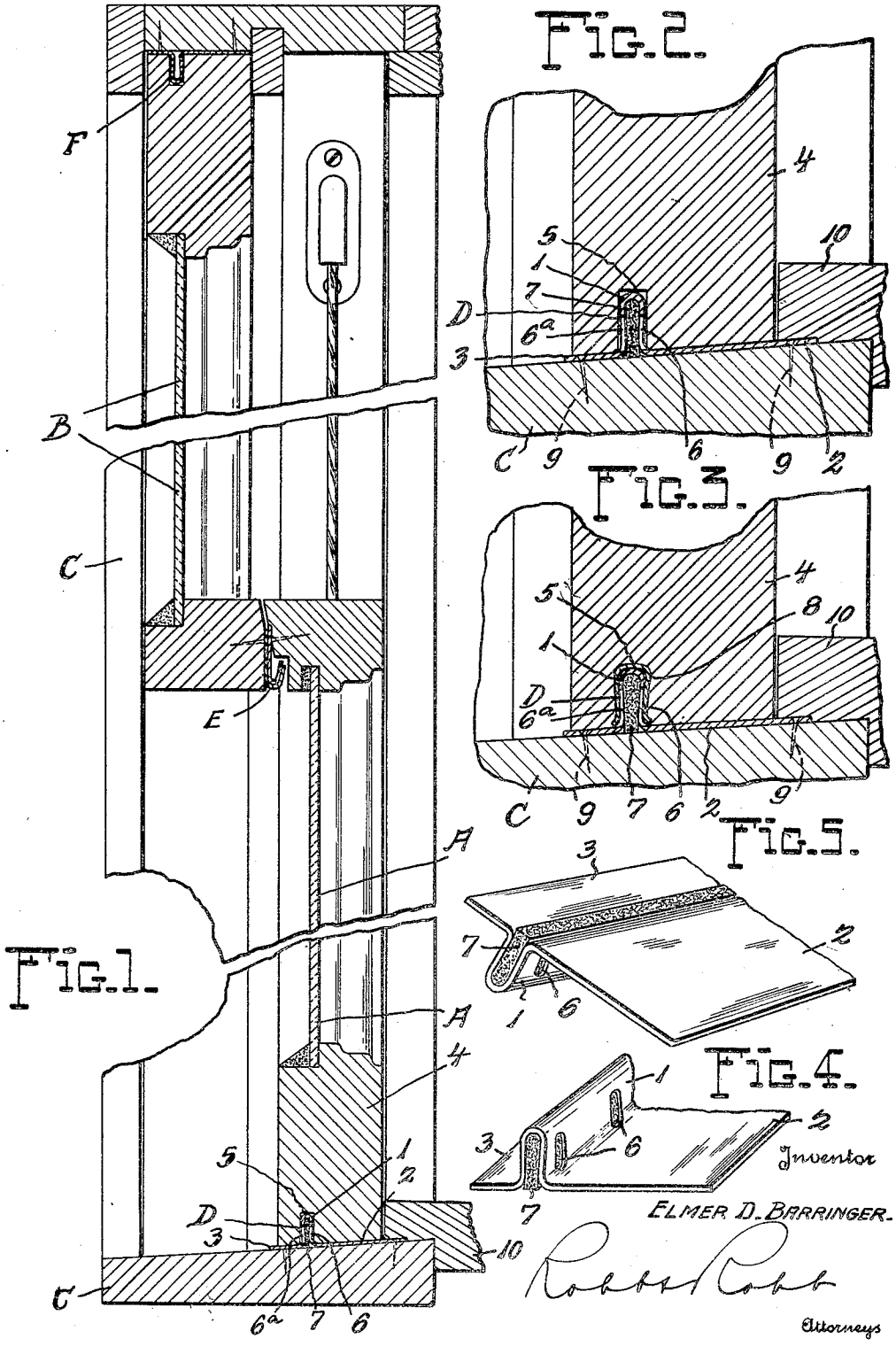
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WEATHER STRIP

Filed Feb. 19, 1932



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WEATHER STRIP

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In window insulations, trouble is sometimes encountered due to the effects of condensation of moisture on the interior surfaces of the window pane, producing sufficient accumulation of water to cause rotting of the window sash between the contacting areas and the sash and the frame in which the window is installed. This is particularly true around the bottom of the sash, where collected moisture remains without drainage to the outside of the window. This difficulty is often increased where a weatherstrip has been installed between the bottom of the sash and the frame, because such a weatherstrip installation tends to obstruct the passage of water to even a greater degree than occurs when the weatherstrip is omitted.

The present invention provides a weatherstrip installation which permits free drainage of such accumulated moisture, so that any tendency of the sash or frame to be rotted thereby is removed, while at the same time fulfilling all the requirements of a weatherstrip so far as concerns tightness to weather conditions, so that an absolutely tight joint between the bottom of the sash and sill is obtained, while, as before mentioned, there results a free drainage of any moisture accumulating between the window sash and frame.

The invention will be more readily understood by reference to the accompanying drawing, in which—

Figure 1 represents a vertical section through a window installation equipped with the improved form of weatherstrip.

Figure 2 is an enlarged fragmentary view of the bottom part of the construction of Figure 1.

Figure 3 is a view similar to Figure 2, but showing a somewhat modified form of weatherstrip installation.

Figure 4 is a perspective view of the improved form of weatherstrip.

Figure 5 is a perspective view of the bottom of the strip of Figure 4.

Referring more particularly to the drawing, the lower window is represented generally by A, and the upper window by B, these windows being installed in the frame C in the usual manner. The various interstices between the windows and between the windows and frame are shown as being equipped with weatherstrip installations as indicated at D, E, and F. Installations E and F as illustrated, are of standard type, and it is to the installation D that the present invention relates. As will be seen from the drawing, the weatherstrip D is composed of an upstanding rib 1 bent into an inverted channel, the sides of which rib extend outwardly at substantially right angles as shown at 2 and 3 to provide an all metal surface between the bottom of the sash 4 and the frame C. To receive the rib the window sash 4 is recessed in the channel as indicated at 5, in a manner which is well known. It will be seen that through the lower portion of the rib 1 of the weatherstrip are placed opposing openings 6 and 6*a* in such a position that moisture collecting between the rib 1 and the frame member or stool 10 may drain through these holes, together with water collecting between the interior side of the rib 1 and the recess in the sash in which the rib 1 is received. All of this condensed moisture ultimately finds its way between the bottom of the sash and the sill, where it collects and eventually rots the sash and sill unless drainage means such as just mentioned are provided, these apertures providing, thereby, drainage for all water entering around the sash 4 at any surface where it may tend to enter and collect. It will be apparent that were these holes unobstructed, they would serve as means whereby air might pass from the outside to the inside of the window between the sash 4 and frame C. To prevent such passage of air, the rib 1 is provided with

a strip 7 of felt or similar material, which will act as a filtering medium to permit the drainage of water through the openings 6 and 6*a*. The material of which this strip 7 is formed is preferably of a type of felt which will permit the free passage of water, this strip serving as a sort of filter for the collected water. It is necessary, of course, that the strip 7 be freely absorbent, so that drainage of this collected water will not be impeded; and the extending flanges 2 and 3 effectively prevent the water from contacting with the sill of the frame C, and facilitate the guiding of the water into the drainage openings.

In the form shown in Figure 3, the construction just described remains unchanged. In this form the recess 5 in the sash 4 is lined with a metal insert 8, into which the rib 1 is received. It will be understood of course that the parts are of suitable non-corroding material, and that the strip will be secured in position by suitable fastening means, such as nails or screws, indicated generally at 9 passing through the flanges 2 and 3, which therefore serve as attaching means for the strip. The interior surface of the lower edge of the lower window A is covered by the stool 10, as usual.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is—

1. A weatherstrip for window installations comprising an upstanding rib formed into an inverted channel adapted to engage with a window sash, the said channel having its sides bent oppositely and outwardly to form a continuous surface between the sash and the sill of the frame in which the sash is installed, drainage means through the said channel, and a strip of filtering material substantially filling the said channel to prevent entry of air through the weatherstrip while allowing free drainage of moisture therethrough.

2. A weatherstrip for windows comprising an upstanding rib formed into a channel, the said channel having its walls bent outwardly at the lower portions thereof in opposite directions for engagement by a window sash when the sash is in closed position, the said channel being provided with drainage apertures for allowing drainage of collected moisture from around the sash, and a strip of filtering material within the channel and covering the drainage apertures to prevent entry of air through the weatherstrip while allowing free drainage of the said moisture through the drainage apertures.

3. A weatherstrip for windows comprising an upstanding rib bent to form a channel and having flanges extending outwardly from the rib in opposite directions to form engaging surfaces for a window sash, the said rib being provided with drainage means for allowing free drainage of moisture collected between the sash and flanges, and filtering instrumentalities interposed in the said channel between the drainage means for preventing passage of air through the drainage means while allowing free passage of moisture therethrough.

4. A weatherstrip comprising an integral body member having an upstanding rib formed into an inverted channel, the sides of which are bent into oppositely extending flanges, the said channel being provided with drainage apertures therethrough, and a layer of water absorbent material positioned in the said channel to obstruct passage of air through the drainage means while allowing free passage of water therethrough.

5. A weatherstrip for windows comprising an upstanding rib formed into a channel and having drainage apertures therethrough, and a body of water absorbent material within the channel and substantially filling the said channel for obstructing passage of air through the apertures while permitting free drainage of water therethrough, the weatherstrip being adapted to prevent accumulation of condensed water around a window sash for which the weatherstrip is installed.

6. A weatherstrip for windows comprising an upstanding rib formed into a channel and having drainage apertures therethrough, and filtering means within the channel covering the apertures to prevent passage of air therethrough while allowing free drainage of water, the weatherstrip being adapted to prevent accumulation of such water between the window sash and the frame in which the sash is installed, and in the channel formed by the rib strip and stool.

7. A weatherstrip for windows comprising a rib having drainage apertures therethrough, and means cooperating with the rib and covering the apertures to prevent passage of air therethrough while allowing free drainage of water through the apertures.

8. A weatherstrip for windows comprising an upstanding rib having drainage apertures therefor, and a strip member carried by the rib covering the apertures to prevent passage of air therethrough while allowing free drainage of water through the apertures.

9. A weatherstrip for windows comprising an upstanding rib formed into an inverted channel and provided with drainage apertures therethrough, and a filler for the channel covering the apertures to prevent passage of air therethrough while allowing free drainage of water through the apertures.

10. A weatherstrip construction for windows comprising in combination a rib weatherstrip secured to the sill of a window frame, the weatherstrip having portions thereof laterally extending from its rib to form contacting surfaces for a window sash operating in the frame, a stool strip secured

to the sill adjacent the interior side of the window sash and covering one edge of the rib weatherstrip to define a channel with the rib thereof into which channel the window sash is received when the sash is closed and into which collects moisture condensed on the window, the said rib being provided with drainage apertures therethrough, and means covering the apertures to prevent passage of air therethrough while allowing free drainage of the water, thereby preventing accumulation of such water between the window sash and the frame in which the sash is installed.

In testimony whereof I affix my signature.

ELMER D. BARRINGER.