Sept. 29, 1959 S. D. RITZ 2,905,983

WEATHER STRIP FOR WINDOW

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Fig. 1.

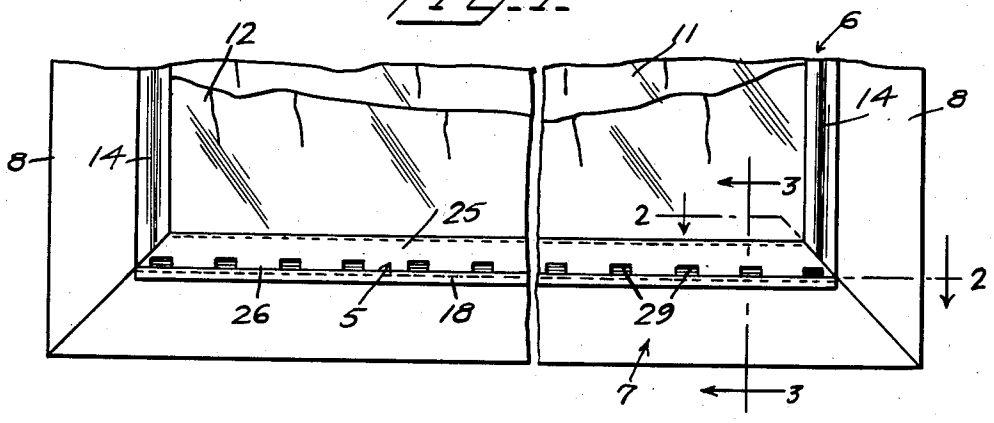
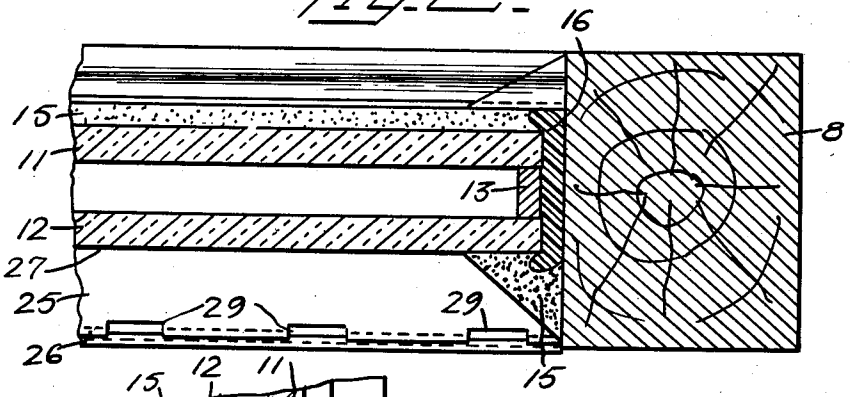


Fig. 2.



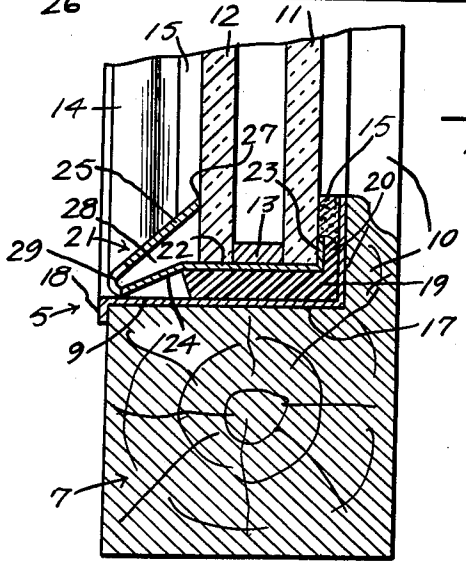


Fig. 3.

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WEATHER STRIP FOR WINDOW

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3 Claims. (Cl. 20—56.4)

This invention relates to a novel weather strip unit for replacing the conventional wood stop and glazing compound normally employed on one side of the bottom of a window.

More particularly, it is an aim of the present invention to provide a novel weather strip unit for use in connection with the bottom rail or bar of a window and with the lower portion of the glass pane or panes thereof, for draining moisture away from the windowpane at the bottom of the window frame or sash frame to prevent the accumulation of moisture in the bottom of the windowpane channel.

More particularly, it is an aim of the present invention to provide a weather strip installation for draining water and other moisture away from the outer side of the window to eliminate the accumulation of moisture in the bottom channel of a window or sash frame and which often accumulates to a sufficient depth to escape around the windowpane or panes to the inner side of the window.

Still another object of the invention is to provide a weather strip unit which will eliminate the accumulation of moisture in the bottom channel of a window or sash frame, and which moisture thus trapped can only escape by seeping through the wooden bottom bar or rail of the frame to cause a rotting thereof.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating a presently preferred embodiment thereof, and wherein:

Figure 1 is a fragmentary elevational view looking toward the lower portion of the outer side of a window sash equipped with the weather strip unit;

Figure 2 is an enlarged sectional view taken substantially along the line 2—2 of Figure 1, and

Figure 3 is an enlarged fragmentary vertical sectional view taken substantially along a plane as indicated by the line 3—3 of Figure 1.

Referring more specifically to the drawing, for the purpose of illustrating a preferred application and use of the weather strip unit, designated generally 5 and comprising the invention, a portion of an otherwise conventional window sash, designated generally 6, has been illustrated. The sash 6 includes a conventional wooden frame, portions of the bottom bar 7 and side bars 8 of which have been shown. The bottom bar 7, side bars 8 and also the top bar, not shown, of the sash frame have corresponding recesses or notches 9 for receiving the windowpane or panes. In addition, each of said bars has a fixed inwardly extending pane stop or molding strip 10 which extends inwardly beyond said inner surface 9. The strips 10 preferably are formed integral with the bars. In the sash 6 as illustrated, said sash is provided with two windowpanes 11 and 12 to form a thermal or heat and cold insulating unit and which panes are held in spaced apart substantially parallel relation to one another by spacing blocks or strips 13 disposed therebetween. The inner pane 11 and outer pane 12 are retained in the sash frame by the inner pane stops 10 and by the removable outer pane stops 14. The outer pane stops 14 are secured in any conventional manner against the inner faces 9 of the side bars 8, and top bar, not shown, between the outer face of the sash frame and the outer pane 12. The spaces between the inner stops 10 and the inner pane 11, and the removable outer stops 14 and outer pane 12, are filled with glazing compound 15, as is conventional, and as is illustrated in Figure 2. Setting blocks or strips, preferably formed of neoprene, as seen at 16, are disposed between the edges of the panes 11 and 12 and the side bars 8 and the top bar, not shown, said setting blocks having side edge portions engaging around the remote sides of the panes 11 and 12. The glazing compound 15 fills the channels formed by the pane stops 10 and 14 and the panes 11 and 12, respectively, from said outturned side edges of the setting blocks 16 to the inner edges of said stop strips. All of the parts previously described are conventional and have merely been illustrated and briefly described to afford a better understanding of the weather strip unit 5, constituting the invention.

The weather strip unit 5 includes a flashing strip 17 lining the inner surface 9 of the bottom bar 7 and the inner side of its permanent pane stop 10, from end-to-end of said inner surface 9. The flashing 17 has a downturned longitudinal edge 18 which overhangs the upper portion of the outer face of the bar 7, and which likewise extends from end-to-end of the recessed portion 9. The weather strip unit includes a setting block or strip 19 which is coextensive with the flashing 17, lengthwise of the bar 7. The setting block 19 is preferably formed of neoprene and is disposed beneath the bottom edges of the panes 11 and 12 and has an upturned lip 20, extending from end-to-end thereof, which extends upwardly between the pane 11 and the stop 10 for a short distance.

A strip of sheet metal 21, which is likewise of a length to extend from end-to-end of the recess 9 of the bar 7, has a substantially flat portion 22 disposed between the setting block 19 and the panes 11 and 12 and on which the bottom edges of said panes rest. One longitudinal edge of the strip 21 forms an upturned lip 23, which extends upwardly from one longitudinal edge of the portion 22 and which is disposed between the setting block lip 20 and the inner pane 11. The channel or groove between the flashing lined stop 10 and the pane 11, above said portions 20 and 23, is filled with the glazing compound 15, as seen in Figure 3. The member 21 includes an outwardly and downwardly inclined portion 24 forming a transverse extension of the other outer edge of the portion 22 and which is inclined downwardly therefrom and has an outer edge portion resting upon the flashing 17, adjacent its downturned lip 18. The other longitudinal edge portion of the strip 21 constitutes an upwardly and inwardly turned back portion 25 which extends upwardly and inwardly at an incline from the rounded bend or fold 26 of the strip 21, formed by the converging longitudinal edge portions of the parts 24 and 25. The upper free edge 27 of the portion 25 bears against the outer side of the outer pane 12, above and spaced from the portions 22 and 24. Said portions 24 and 25 form a downwardly and outwardly inclined chamber 28 which, like said portions, extends from end-to-end of the weather strip unit 5. The chamber 28 is open except at the ends thereof which are sealed by the glazing compound 15, as seen in Figure 2. The chamber 28 is provided with a plurality of longitudinally spaced drain ports 29 which are formed in the rounded fold 26.

The flashing 17 and the weather strip 21 are preferably formed of a metal which is rust resistant. The

strip 21 possesses sufficient resiliency so that the portion 25 thereof will be resiliently biased toward the outer pane 12 so that its edge 27 will be yieldably held in contact with the pane. From the foregoing it will be readily apparent that the panes 11 and 12 are held in the sash frame by the pane stops 14, in combination with the stops 10 and the glazing compound 15, associated with said stops 14 and 10. The panes 11 and 12 in turn retain the weather strip unit 5 in an applied position in the bottom bar 7, as illustrated in Figure 3.

All moisture such as rain water running down the outer pane 12 will be deflected outwardly and away from the bottom bar 7 by the weather strip unit 5. The majority of such drainage water will flow over the strip portion 25, which thus constitutes a baffle or deflector, and thence outwardly over the overhanging flashing lip 18 and down the outer face of the bar 7. Any moisture passing between the baffle edge 27 and pane 12 will enter the chamber 28 and will be deflected downwardly and outwardly thereof by the portion 24 which forms a second baffle or deflector. Such moisture will drain from the chamber 28 through the drain ports 29 and will likewise flow over the flashing lip 18. Thus, no moisture will escape around the bottom edges of the panes 11 and 12 and into the inner side of the window sash, as commonly occurs where the bottom bar 7 is provided with a conventional pane stop 14 sealed only by glazing compound 15 in which minute openings are created by expansion and contraction of the sash parts resulting from changes in temperature. In addition, such an accumulation of water in the pane channel of bottom wooden bars of conventional sashes can escape only through the bar, which thus rots this portion of a conventional wooden window sash.

While the weather strip unit 5 has been illustrated in combination with an insulated double pane type window sash, it will be understood that it is equally well adapted for use with single pane sashes as well as with other forms of frames in which a transparent panel or pane is mounted.

Various modifications and changes are contemplated and may be resorted to, without departing from the function or scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. A weather strip unit for a window comprising a flashing strip adapted to line the inner side of the permanent pane stop and the recessed inner surface of the bottom bar of a window sash frame, a weather strip having a

substantially flat portion disposed beneath and on which the bottom edge of a windowpane is adapted to rest, a setting block interposed between the flashing and said flat portion of the weather strip and beneath the windowpane for clamping said strip portion between the setting block and the windowpane, said weather strip including a baffle portion inclined downwardly and outwardly from said flat portion and from an outer side of the windowpane for deflecting moisture on the outer side of the pane toward the outer side of said bottom bar, said weather strip including a second upper baffle disposed above and spaced from said first mentioned, lower baffle, said upper baffle having an upper free edge bearing against the outer side of the windowpane and being inclined downwardly and outwardly therefrom and merging at its lower edge with the lower outer edge of said lower baffle to form a chamber, said merging baffle edges constituting a rounded fold having drainage ports for the drainage of moisture which enters the chamber between said upper free edge of the upper baffle and the outer side of the windowpane.

2. A weather strip unit as in claim 1, and glazing compound sealing the ends of said chamber.

3. A weather strip unit for a window comprising a flashing member adapted to line the pane receiving recessed inner surface and the inner side of the fixed pane stop of the bottom bar of a sash frame, a weather strip forming a channel adapted to receive the bottom edge of a windowpane, a setting block disposed between the flashing and a portion of said weather strip channel for clamping the channel to the windowpane, said channel having a downwardly and outwardly inclined outer portion projecting from an outer side of the windowpane and supported by an outer portion of the flashing, said outer portion of the weather strip constituting baffle means for deflecting moisture downwardly and outwardly from the window pane toward an outer side of the bottom sash bar.

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