

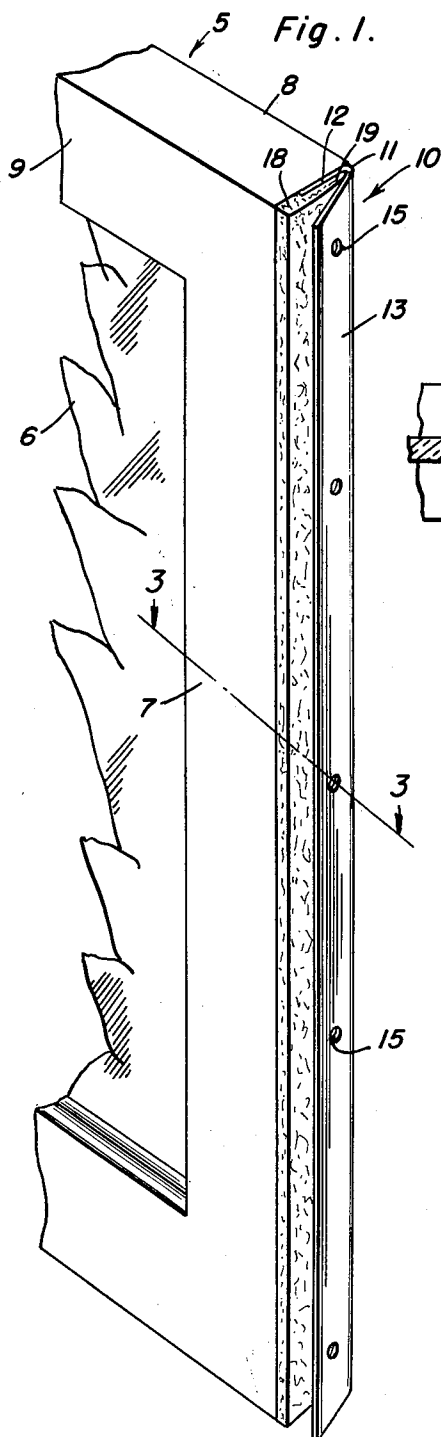
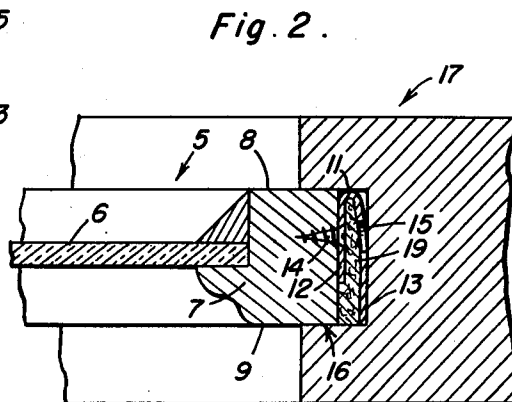
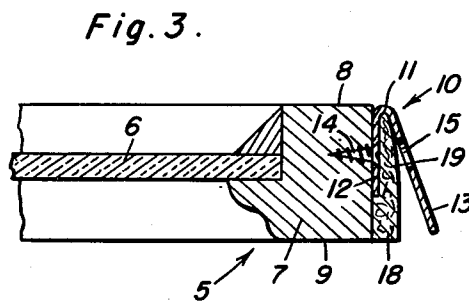
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E. D. LAVE

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COMBINATION SASH HOLDER AND WEATHER SEAL

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Inventor

Edward D. Lave

By

Clarence A. O'Brien
and Harvey E. Jacobson
Attorneys

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COMBINATION SASH HOLDER AND
WEATHER SEAL

Edward D. Lave, Chicago, Ill.

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2 Claims. (Cl. 20—69)

1

The present invention relates to friction-type sash holders for vertically liftable and lowerable double-hung window sashes and has more particular reference to a sash holder which also functions as a weather seal.

More specifically, the invention relates to a spring metal strip having complemental flanges, one for attachment to the sash and the other for spring sliding contact with the fixed frame, said metal strip being of a length commensurate with the sash rail to which it is attached and said flanges being so constructed and sufficiently spaced as to accommodate a complemental felt filler which, combined with the strip, provides the combination friction-binding sash holder and weather seal.

In carrying out the principles of the invention, I take a strip of spring metal of appropriate resiliency, gauge and strength which is bent longitudinally between its longitudinal edges to define the stated flanges, the attaching flange being relatively narrow and the friction retention and holding flange being of a width corresponding to the cross-section of the sash rail, the felt filler being properly cut and having a portion fitting between the stated flanges, said portion being compressed when the flanges are together to add to the desired sealing properties of the overall device.

Other objects and advantages will become more readily apparent from the following description and the accompanying illustrative drawings.

In the accompanying sheet of drawings:

Figure 1 is a fragmentary perspective view of a conventional slidable window sash equipped with the attachment means constituting the subject matter of my invention.

Figure 2 is a fragmentary horizontal section showing the sash in its frame and illustrating the manner in which the invention functions in relation to the sash and frame.

Figure 3 is a view like Fig. 2, in fragmentary horizontal section which may be said to be taken on the approximate line 3—3 of Fig. 1, looking in the direction of the arrows.

Referring now to the drawings by distinguishing reference numerals, the window sash, a sliding type, which is a common type, is denoted by the numeral 5 and includes a glass panel or window 6 mounted in a surrounding wooden or equivalent frame. Usually, my devices are attached to the vertical rails of the sash frame, that is, the rails which may be identified at 7 in the drawings. The outside surface of the sash is denoted at 8 and the inside surface at 9. Ordinarily, I employ two of the attachments which

2

are represented in the drawings, but I am showing only one for simplification. As a matter of fact, the description of both devices would be the same, and a description of one will suffice for both. To this end, the principal attachment is denoted by the numeral 10 and this is formed from a strip of spring steel of appropriate gauge which is bent between its longitudinal edges, as at 11, to define a substantially V-shaped member embodying a relatively narrow attaching flange 12 and a wider friction and retention flange 13. The attaching flange 12 is provided with screw holes to accommodate wood screws 14 and said flange is fastened to the rail 9 so that the bend 15 is slightly inward of the surface 8. The flange 12 is approximately one-half, more or less, in width compared to the cross-section of the rails 7. The flange 13, which is of the desired retentive resiliency thought to be approximately equal to the cross-section of the sash rail 7, as shown in the drawings. This flange, sometimes referred to as a friction shoe, is, like the flange 12, of a length commensurate with the length of the rail 7. Said flange 13 has screw holes therein at 15. These holes or openings are primarily adapted to permit the screws to be inserted, by the user's fingers, therethrough and then into the screw holes into the flange 12. Said holes 15 give access of a screwdriver to the screws 14 to allow same to be driven in.

The attachment 10 characterized by the flanges 12 and 13 serves as a sash holder. That is to say, the flange 13 is possessed of inherent resiliency and springs out against the coacting surface of the channelway 16 in the window frame 17, as shown to advantage in Fig. 2.

To add to the utility of the device and to give it the double function of a sash holding shoe and weather strip or weather seal combined, I provide a filler of felt or equivalent packing material which is denoted by the numeral 18. This filler has a relatively thick portion which is glued or otherwise fastened to the sash rail 7, as shown in Fig. 3. It has a narrower tapering adapter or insert 19 which is fitted in between the fixed and movable flanges 12 and 13. When the flange 13 is in friction-retaining position, as shown in Fig. 2, the felt material is compressed firmly between the two flanges and this adds to the effective "sealing" properties of the felt filler. It will be noted that the portion of the felt filler which is secured in place is directly attached to the wooden rail 7 in order to provide a weather-tight joint between itself,

18, the rail 7 and the screw-attached flange 12.

The overall invention or attachment comprises two main parts, a filler of felt or equivalent stock, and a bent metal strip constituting the attachment proper, the part denoted by the numeral 10. More specifically, novelty is predicated upon the narrow and wide flanges 12 and 13, the flange 13 being a heavy, springy element sufficient to provide the friction-retention results wanted. In addition, the felt strip coats intimately with the flange 12 and the rail 7 and, by having the tapered insert 19, is compressed nicely between the two flanges 12 and 13. Thus, an effective two-way sash holder and weather seal is had.

Although the drawings show the attachment applicable directly to the window sash, it is obvious that such attachments may also be used by connecting one to the top member of the window frame (not shown) and another to the window frame sill (not shown). As a matter of fact, I contemplate using the invention even between the meeting rails of upper and lower sliding sashes. Primarily, however, I am interested in the simple adaptation illustrated in the drawings.

By way of summation, it is to be pointed out that the principal novelty in the invention at hand is predicated on a metal weather strip which is of general V-shaped form in cross section with the narrower flange providing the attaching and anchoring flange and the wider one providing the resilient friction shoe, in conjunction with a strip of complemental felt which is interposed between the flanges, is of a width corresponding to the wider flange and has one of its longitudinal edge portions seated in the crotch formed by the bend at the longitudinal center of the metal strip.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention, the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and within the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. In a structure of the class described, in combination, a conventional-type slidable window sash including a sash frame and a window panel, a metal strip of a length corresponding to the length of one of the vertical rails of the sash frame, said strip being bent intermediate its respective longitudinal edges to provide a member of V-shaped cross-section embodying an attaching flange and a complemental friction flange, said friction flange being resilient, constituting a retention shoe and being of a width substantially equal to the cross-sectional thickness of said one vertical rail, said flanges being provided with coating screw holes, said attaching flange being narrower than the friction flange, and a strip of compressible felt of

a cross-section substantially equal to the cross-section of said one rail and substantially corresponding in width to the cross-sectional width of said friction flange and reduced in thickness to provide a wedge-shaped adapter, the latter overlying said attaching flange and thus projecting snugly into and filling the crotch of said V-shaped member, the inner longitudinal edge portion of said strip of felt projecting beyond the corresponding inner longitudinal edge of said attaching flange and being superimposed against and glued to the coating edge surface of said one rail, said inner longitudinal edge being flush with the inwardly facing flat surface of said one rail, said friction flange being normally sprung, through the medium of its inherent resilient properties into spaced divergent relationship with the coating surface of said felt strip and being adapted, when in use, to be forcibly pressed into firm direct contact with said coating surface, whereby said felt strip shall be clamped between said one rail and said flanges.

2. A sash frame attachment of the class shown comprising an elongated weather strip of general V-shaped form embodying a relatively narrow attaching and anchoring flange adapted to be secured to an edge of one of the vertical rails of a sash frame and a correspondingly elongated but wider resilient flange opposed to the attaching flange and diverging therefrom and constituting a friction shoe, and a felt filler of a length corresponding to the lengths of said flanges, said filler being of a width approximately the same as the width of the friction shoe and having a relatively thick longitudinal edge portion which is adapted to be glued or fastened to the stated rail and having a thinner wedge-shaped adapter portion fitting into the crotch of the V-shaped weather strip and interposed between the stated flanges, said V-shaped weather strip and felt filler when combined therewith providing a unit which is substantially of a cross-section corresponding approximately to the cross-section of the sash rail on which the unit is adapted to be mounted, and the relatively thick longitudinal edge portion of said filler being flush with the corresponding free edge portion of said wider flange when the latter is forcibly pressed into contact with said filler.

EDWARD D. LAVE.

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