J. DAVIS & J. M. LUTZ.

WINDOW HOLDER AND WEATHER STRIP.

APPLICATION FILED SEPT. 16, 1908.

919,426. Patented Apr. 27, 1909.

Fig. 1.

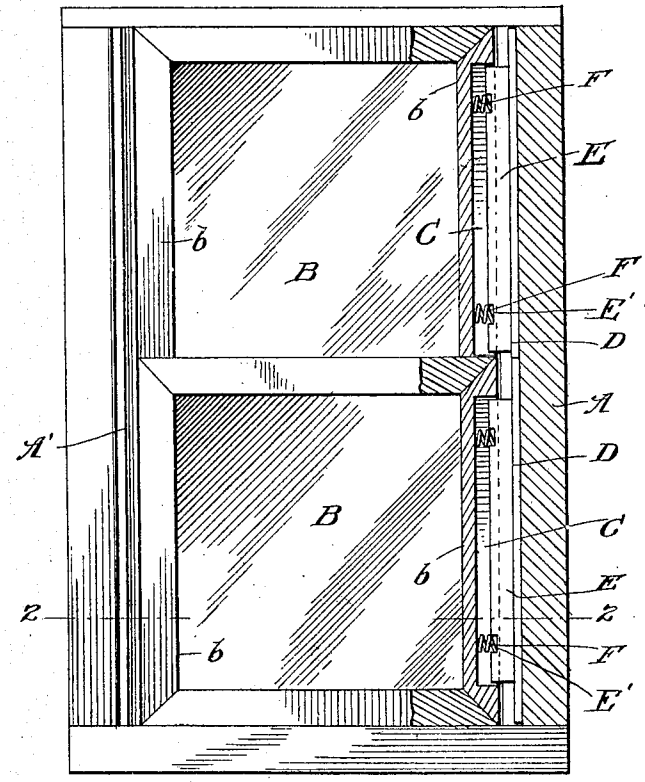


Fig. 3.

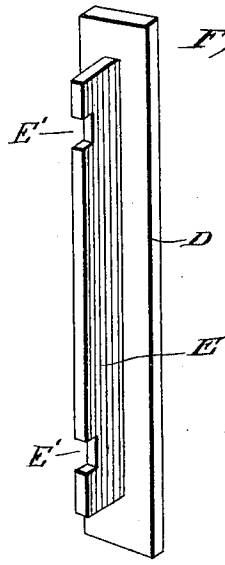


Fig. 4.

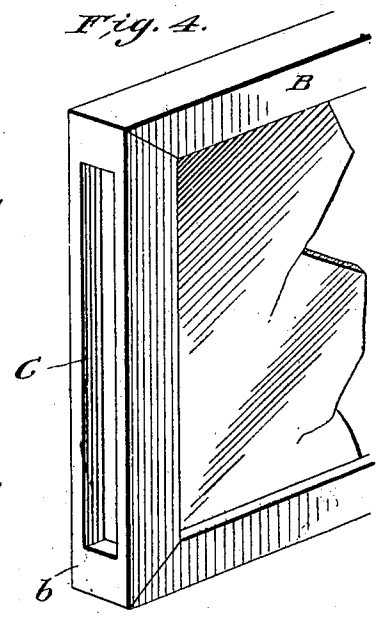
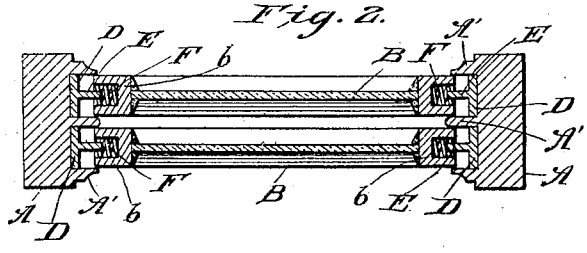


Fig. 2.



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JOSEPH DAVIS AND JOHN M. LUTZ, OF PHILADELPHIA, PENNSYLVANIA.

WINDOW-HOLDER AND WEATHER-STRIP.

No. 919,426. Specification of Letters Patent. Patented April 27, 1909.

Application filed September 16, 1908. Serial No. 453,273.

To all whom it may concern:

Be it known that we, JOSEPH DAVIS and JOHN M. LUTZ, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Window-Holders and Weather-Strips, of which the following is a specification.

Our invention relates to windows, and particularly to means for providing a resilient frictional contact between the sliding window sash and its casing.

One object of our invention is to provide means for frictionally engaging a window sash with its casing at any position to which it may be raised or lowered without the use of sash weights or sash lifting-springs.

Another object is to so arrange the friction plate or strip in conjunction with the window that it shall also form a weather strip, preventing the entrance of wind, rain or dust through the space between the sash and the frame, and in addition preventing the entrance of dust into the space behind the friction plate.

Our invention consists in the arrangement of parts and details of construction shown in the accompanying drawings and particularly stated in the claims appended.

In the drawings Figure 1, is a face view of a window constructed in accordance with our invention, one side of the window frame and sash being broken away. Fig. 2, is a transverse section on line 2—2 of Fig. 1. Fig. 3, is a rear view of the friction plate, and Fig. 4, is a perspective of one edge of the window frame.

In the drawings A designates a window frame of any form or construction having the usual stiles A′ forming longitudinal channels in which the window sashes are received and moved.

B designates the upper and lower window sashes. These are made as usual except that the lateral bars *b* of the sash frames do not project to the usual extent into the channel formed between the stiles, and that the outer edges of the bars *b* are grooved at C. The groove C does not extend the whole length of the window sash as shown in Fig. 4, for a purpose hereinafter described.

Fitting over the entire edge face of the sash B and closing the groove C is a friction or presser plate D having an outer contact face, and on its inner face an inwardly projecting rib E which projects into the groove or recess C. The rib E is of course not as long as the plate D, and should be of such dimensions to fit snugly within the groove C, but without binding therein. The rib E is provided on its inner edge adjacent to its ends with notches or recesses E′, for the reception of springs F hereinafter referred to. The outer face of the plate D may be either smooth, roughened or covered with rubber as will best secure the proper frictional contact between the plate and the window casing.

Between the inner edge of the rib E and the face of groove C are located springs F. These are preferably coiled springs and are also preferably attached to rib E and bear at their inner ends against the face of the groove, forcing the plate D outward against the casing.

As will be seen from Fig. 1, the friction plate D is constantly and firmly held in frictional contact with the window frame, and hence no air, water or dust can enter around the window sash between the casing and the plate D. As the rib E projects into the groove C as shown in Fig. 1, it forms a barrier to the entrance of dust between the edge of the sash and the inner face of the plate D. In order to prevent dust entering the upper end and collecting within the groove between the rib E and the face of the grooves, thus impeding the freedom of the movement of the plate, the rib E and groove C are not extended the full length of the sash. In addition the recess coacts with the rib to form a stop for the rib E and to carry the plate D with the sash when the movement of the latter is started. This prevents the plates D from sticking in place, and the springs F are not contorted or strained as would be the case did the groove and rib extend from the top to the bottom of the sash and the friction plate therefore have a freedom of movement longitudinally which would permit it to move relatively to the window sash.

It will be obvious that the frictional contact between the plate D and the inner face of the window casing will hold the window at any point to which it may be moved, while, as this contact is resilient the sashes can be easily shifted when desired. It is plain too that the window will not bind or stick by reason of the wood of the sash and frame being swelled by moisture, and it is also obvious that dust, rain or wind cannot

enter through the joint between the window casing and sash.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:

1. In combination with a window frame, a window sash having its side edges provided with longitudinal grooves of less length than the sash, a frictional pressure plate on each side of said sash and extending throughout the length of the sash, each plate having a rib received within said groove, said rib shorter than the length of the plate, and springs located in said grooves, and forcing said pressure plates outward into engagement with the inside face of the window casing.

2. In combination with a window frame, a window sash having its side edges provided each with a longitudinal groove, less in length than the length of the window sash, a pressure plate on each side of the sash and of the same length as the sash, each plate having a longitudinal rib extending inwardly and received within said groove, and having notches or recesses therein, and springs within the groove and within said notches or recesses and pressing outwardly against the said ribs.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOSEPH DAVIS.
JOHN M. LUTZ.

Witnesses:
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