April 10, 1928. 1,665,678

F. SHERSMITH

AUTOMATIC WEATHER STRIP

Filed March 28, 1927

Fig. 2.

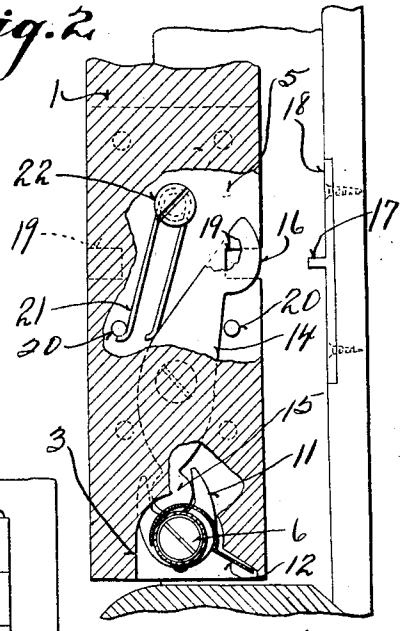


Fig. 3

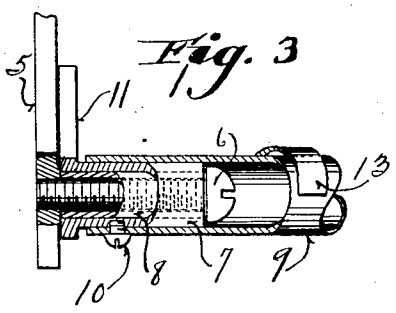


Fig. 1

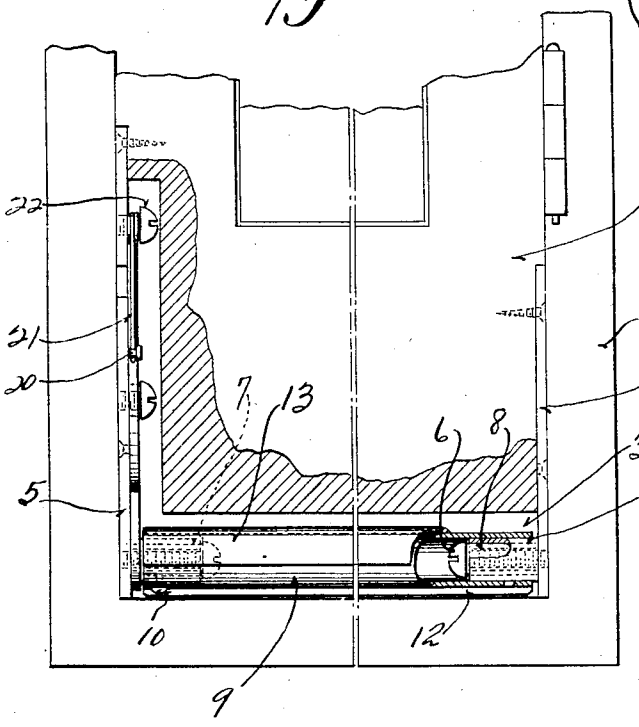
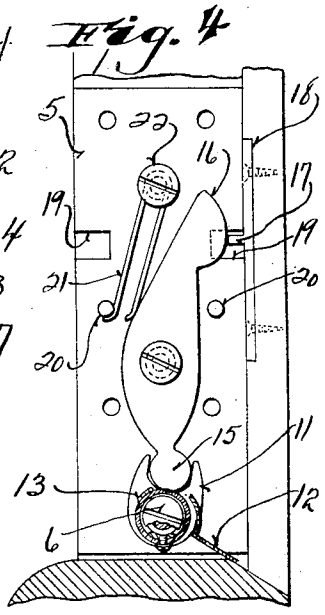


Fig. 4



Inventor
Frank Shersmith
By
Attorneys

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UNITED STATES PATENT OFFICE.

FRANK SHERSMITH, OF OCONOMOWOC, WISCONSIN.

AUTOMATIC WEATHER STRIP.

Application filed March 28, 1927. Serial No. 179,069.

This invention relates to an automatic weather strip.

Objects of this invention are to provide a novel form of weather strip for windows, doors, and other similar members, which cooperates with the casing to which the windows are hinged and secures a weather-tight joint therewith when such windows are closed.

Further objects of this invention are to provide a novel form of weather strip which is easily applied to windows with a minimum alteration thereof and which is equipped with a rocking sleeve carried by trunnions secured to plates at opposite ends of the windows, one of the plates carrying a revolubly mounted rocking lever for operating the sleeve to throw the weather strip into and out of contact with the casing.

An embodiment of the invention is shown in the accompanying drawings in which:—

Figure 1 is a view from the inside of a window equipped with the automatic weather strip with parts broken and in section to more clearly show the invention;

Figure 2 is a sectional view through a portion of the window and casing showing the relative position of the operative parts.

Figure 3 is a detail, partly in section, of one end of the rocking sleeve;

Figure 4 is an inner face view of one of the end plates and the associated mechanism, such view showing the rocking sleeve in section.

Throughout the description and appended claims, the term "window" is intended to cover a window, door, or similar member, and is used to avoid needless repetition.

Referring to the drawings, it will be seen that the window 1 is hingedly carried by the casing 2 and is provided with a channeled lower portion, as indicated by the reference character 3. A pair of end plates 4 and 5 are set into the edges of the window, as shown in Figure 1, and each plate carries an inwardly projecting trunnion which consists of a screw 6 and a revolubly mounted roller 7 carried thereby. Preferably, the screws are each provided with spacers 8 upon which the rollers are carried, as shown in Figure 1. These rollers carry a rocking sleeve 9 which is slidably and revolubly supported by one of the trunnions and is locked to the other rollers by means of a screw 10. The last mentioned roller is provided with an upwardly extending forked lever 11, as shown most clearly in Figures 2 and 3. The sleeve 9 is provided with a metal weather strip 12 which is resilient and which is partially wrapped around the sleeve and secured thereto at its end 13, as indicated in Figure 4, so that there is a yield when the weather strip contacts with the window casing, as shown in Figure 4.

The plate 5 carries a rocking lever 14 (see Figure 2) which is provided with a rounded head 15 fitting within the socketed lever 11. The other end of the lever 14 is provided with a rounded face 16 adapted to engage a projecting stud 17 carried by a plate 18 secured to the window casing, as shown in Figure 2. Preferably, the plate 5 is provided with notches 19 on opposite sides thereof into which the lug or projecting portion 17 may fit. The plate is also provided with a pair of spaced stops 20 against one of which the lever 14 rests, under normal conditions when the window is open, and against the other of which one end of a U-shaped spring 21 bears. This spring bears at its other end against the lever 14, as shown in Figure 2, and is preferably retained in place by means of the screw 22.

It will be seen that when the window is closed, the projection 17 strikes the face 16 of the lever and rocks in a counter-clockwise direction, as shown in Figure 2. This rocks the sleeve 9 and, consequently, rocks the weather strip 12 into contact with the window casing, as shown in Figure 4, such weather strip yielding sufficiently, and securing a weather-tight joint with the casing.

It is desirable that these devices be reversible to accommodate different mountings of windows. Accordingly, the lever 14 is so made that it can be reversed with respect to the plate 5 and the spring may similarly be reversed. The sleeve 9 can also be reversed, if desired, and the parts will then be in position to accommodate a window swinging in the other direction.

It will be seen that a very simple type of automatic weather strip has been provided by this invention which will readily accommodate itself to different types of window mountings.

Further, in view of the sliding connection between one of the rollers 7 and the sleeve 9, the device will accommodate itself to windows of different widths.

Although the invention has been described in considerable detail, such description is

intended as illustrative rather than limiting as the invention may be variously embodied and as the scope of such invention is to be determined as claimed.

I claim:

1. In a device of the class described, the combination of a casing, a member hinged thereto, a lever pivoted intermediate its ends within said member, a rocking sleeve extending transversely along the underside of said member and having an arm interfitting with the lower end of said lever, a spring urging said lever in one direction, means carried by said casing against which said lever strikes for rocking said lever in the other direction to thereby rock said sleeve, and a resilient weather strip carried by said sleeve and contacting with said casing when said sleeve is rocked.

2. The combination of a casing, a window hinged thereto, a plate set in the side of said window and having a pair of spaced stops, a lever pivoted intermediate its ends to said plate, a spring, one end of which bears against one of said stops and the other end of which bears against said lever and forces said lever against the other of said stops, a projection carried by said casing for engaging said lever, and a rocking weather strip carried by the lower portion of said window and actuated by said lever, said weather strip contacting with said casing when said window is closed, said lever, spring and weather strip being reversible.

3. The combination of a casing, a window hinged thereto, and having a channeled lower end, a pair of plates set into opposite sides of said window and having trunnions projecting towards each other and into the channel in the window, a rocking sleeve revolubly mounted upon one of said trunnions and slidably and revolubly carried by the other of said trunnions to accommodate variations in the width of the window, a resilient weather strip partially wrapped around said sleeve and secured thereto and adapted to rock into contact with the lower portion of said casing, a lever pivotally carried by one of said plates for rocking said sleeve, and a projecting member carried by said casing for actuating said lever when said window is closed.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

FRANK SHERSMITH.