

UNITED STATES PATENT OFFICE.

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WEATHER-STRIP.

No. 815,646.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MICHAEL M. SHELLABERGER, a citizen of the United States, residing at De Kalb, in the county of Dekalb and State of Illinois, have invented certain new and useful Improvements in Weather-Strips, of which the following is a specification.

My invention relates to weather-strips of that general type wherein a strip of elastic metal is interposed between the bearing-surfaces of a window-sash and its casing, and has for its general object to provide a simplified and improved device capable of economical manufacture and application and well adapted to maintain a snug and yielding fit between the sash and its casing.

In its essential features the device comprises an elastic bearing-strip secured at one edge to the casing, preferably the base of the sash-guiding groove thereof, having a longitudinal fulcrum-rib adapted to bear against the casing and a bent lip formed on its other longitudinal edge designed to overlies one face of the stile, in conjunction with a sealing-strip attached to the face of the stile and having a narrow groove receiving said lip.

My invention will be readily understood when considered in connection with the accompanying drawings, which show a preferred mechanical embodiment thereof, and wherein—

Figure 1 is a horizontal cross-section through one side of a window-casing and a sash therein, said casing and sash being equipped with my invention. Fig. 2 is a face view of a fragment of the casing, showing the bearing-strip seated in the sash-guiding groove. Fig. 3 is a face view of a portion of the stile, showing the application thereto of the guiding and sealing strip; and Fig. 4 is a cross-sectional view through a portion of the casing containing the sash-guide groove, showing the bearing-strip in the position occupied thereby when the sash is removed.

Referring to the drawings, 5 may designate one of the usual vertical members of a window-casing, having two sash-guiding grooves 6 and 7 formed therein and separated by the usual parting-strip 8.

9 designates as an entirety my improved bearing-strip, which is formed of elastic sheet metal and is secured at one longitudinal edge to the bottom of the guide-groove, as by the screws or brads 10. This strip, which preferably extends the full height of the window-

casing, has formed therein or thereon, preferably by indentation, as shown, a longitudinal rib 11, located on its inner or back side parallel with and closely adjacent to that margin thereof which is secured to the casing. This rib serves, in effect, as a fulcrum, causing the main body portion of the strip to project outwardly at a slight angle, as shown in Fig. 4, when not engaged by the sash. The opposite marginal portion of the strip is bent outwardly or toward the sash-stile substantially at right angles to form a lip 12. The angle thus formed by the body portion and lip of the strip is designed to overlies one of the corners of the stile, the body portion lying against the outer edge of the stile and the lip overlapping one of the faces thereof, as plainly indicated in Fig. 1. When the sash is in place, the body portion of the strip is crowded back toward the base of the groove, so that it has a substantially flat and continuous bearing upon the edge of the stile, the elasticity of the strip, brought into action through the rib 11 bearing as a fulcrum against the bottom of the groove, serving to maintain a snug and close contact.

In conjunction with the bearing-strip above described I employ a cooperating device on the stile 13 to receive and house a lip 12 of the bearing-strip. This device in the form herein shown consists simply of a strip of metal 14, bent double on its longitudinal median line and secured at or near its closed edge by screws or brads 15 to one face of the stile, its open edge lying substantially flush with the outer edge of the stile. This strip 14, which preferably extends the full length of the stile, receives between its parallel sides the lip 12 of the bearing-strip in the manner plainly shown in Fig. 1. It will thus be seen that the strip 14 not only forms a guide for the lip 12 of the bearing-strip, but also, in effect, covers and seals the free edge of the lip, thus preventing the access of dust and moisture between the bearing-strip and the sash.

The described construction and elastic quality of the bearing-strip 9 permits a considerable extent of shrinkage or swelling of the sash and casing, while at the same time maintaining a close elastic fit and preventing the ingress of dust, moisture, or cold air, at the same time permitting the sash to move easily and freely up and down in the casing.

It will be noticed that in applying this weather-strip it is not necessary to cut or de-face in any way either the window-jamb or

the stile of the sash further than what is done by the brads or screws. This is an important feature, inasmuch as the strip is readily put on and does not require grooving the face of the sash or the face of the jamb, thereby obviating liability of wearing the sash and accumulating moisture and rot. The sealing-strip may also be placed on the outside of the stile, in which case the parting-strip which holds the sash in place will also keep the sealing-strip closed on the lip of the bearing-strip, making it proof against dust, moisture, and cold air.

Minor variations and modifications of the device as shown and described may be made by those skilled in the art without departing from the spirit of the invention or sacrificing any of the advantages thereof.

I claim—

1. A weather-strip comprising a bearing-strip secured along one edge to the window-casing and having a longitudinal fulcrum-rib adapted to bear against the latter and on its opposite longitudinal edge a lip adapted to overlap one face of the sash, in combination with a guiding and sealing device secured to the same face of the sash and having a narrow groove receiving said lip, substantially as described.

2. A weather-strip comprising a transversely-elastic metal strip secured along one edge to the window-casing, said strip having a longitudinal fulcrum-rib pressed therein adapted to bear against the casing, and, on its opposite longitudinal edge, an integral lip

adapted to overlap one face of the sash, in combination with a guiding and sealing device comprising a metal strip bent double on its longitudinal median line, said last-named strip being secured to a face of the sash adjacent to its closed edge and receiving between its sides the lip of said bearing-strip, substantially as described.

3. A weather-strip comprising a transversely-elastic bearing-strip secured along one edge to the bottom of the casing-groove, and having on its opposite longitudinal edge a lip adapted to overlap one face of the sash, in combination with a guiding and sealing strip adapted to be secured to the face of the sash and to engage said lip, substantially as described.

4. A weather-strip comprising a transversely-elastic metal bearing-strip secured along one edge to the bottom of the casing-groove, said strip having a fulcrum-rib adapted to bear against the bottom of the casing-groove and, on its opposite longitudinal edge, a lip to overlap one face of the sash, in combination with a guiding and sealing device comprising a metal strip bent double on its longitudinal median line, said last-named strip being secured to a face of the sash adjacent to its closed edge and receiving between its sides the lip of said bearing-strip, substantially as described.

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