(No Model.)

H. VOTH.

WEATHER STRIP.

No. 565,946. Patented Aug. 18, 1896.

FIG. 1.

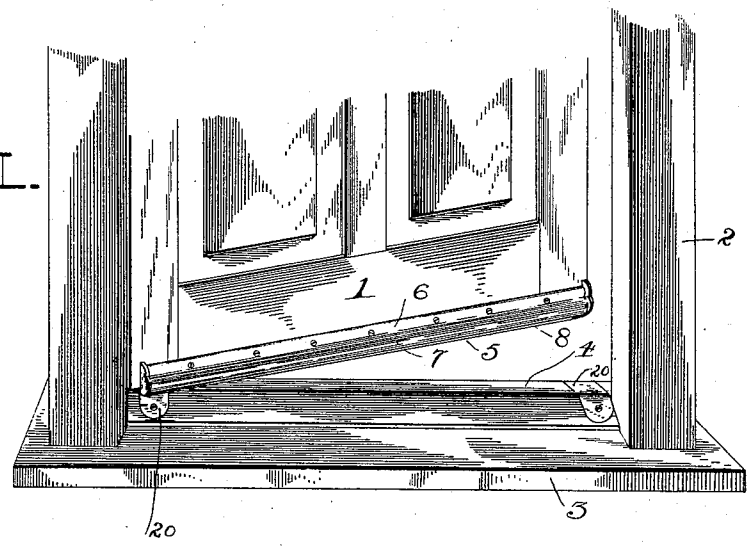


FIG. 3.

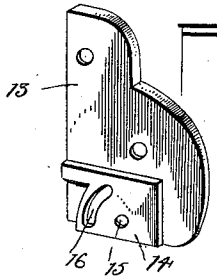


FIG. 2.

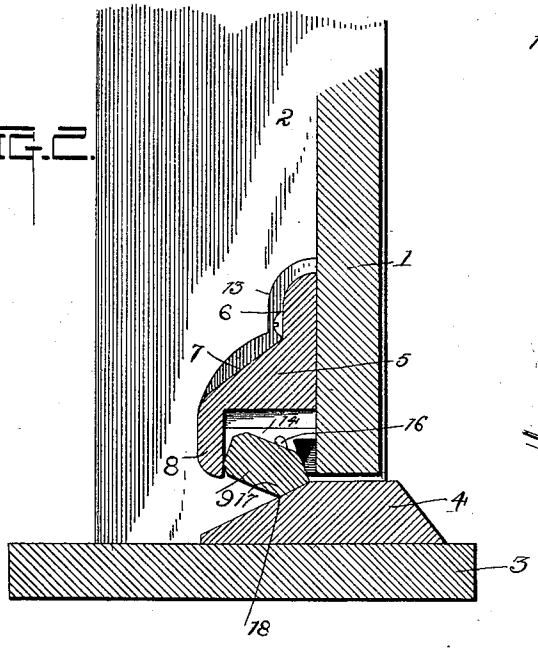
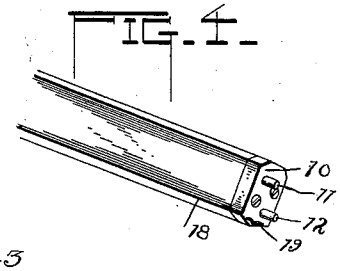


FIG. 4.



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WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 565,946, dated August 18, 1896.

Application filed February 11, 1896. Serial No. 578,888. (No model.)

To all whom it may concern:

Be it known that I, HENRY VOTH, a citizen of the United States, residing at Moberly, in the county of Randolph and State of Missouri, have invented a new and useful Weather-Strip, of which the following is a specification.

This invention relates to an improvement in weather-strips, and has for its object to provide a device of the nature referred to which may be readily applied to any door, window, or transom, whether employed in houses or railway-cars, and which when applied will effectively exclude cold air, water, &c.

The principal object of the invention is to provide an oscillating strip which, when the door is closed, will bear against the exterior surface of the threshold or carpet strip and project below the plane of the upper edge of said threshold-strip, so that the ingress of water will be impossible.

To this end the invention consists in an improved weather-strip embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view showing the lower portion of the door and its frame with the improved weather-strip applied thereto. Fig. 2 is an enlarged vertical cross-section through the same. Fig. 3 is a detail perspective view of one of the end plates in which the weather-strip is pivotally mounted. Fig. 4 is a detail perspective view of one end of the weather-strip proper, showing the end trunnion-plate applied thereto.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1 designates a door to which it is desired to apply the improved weather-strip, 2 the door-frame, and 3 the door-sill.

4 designates the carpet or threshold strip having a flat central ridge and splayed or reversely-inclined side edges, as clearly shown in the cross-sectional view, Fig. 2.

The improved weather-strip comprises a stationary molding 5, preferably of wood and having a vertical flange 6, through which retaining-screws or other fastenings pass into the outer surface of the door to which the molding is applied. From the base of the flange 6 the molding extends outwardly and downwardly and forms an inclined water-table 7, after which the molding is rounded and extended downward to form a depending lip 8. This particular construction of molding establishes a square or rectangular rabbet or cove in the lower edge of the molding, and in connection with the adjacent surface of the door forms a recess extending the entire length of the molding, in which works an oscillating weather-strip proper, 9. The strip 9, when complete, is of the same length as the molding 5 and has secured to its opposite ends metal end pieces or plates 10, which carry longitudinally-projecting trunnions 11 and also longitudinally-projecting pins 12, which form stops for limiting the rocking movement of the strip 9, as will hereinafter appear.

13 indicates a pair of end plates secured to the opposite extremities of the molding 5 and corresponding in outline thereto, with the exception that the edges of the end pieces are projected slightly above or beyond the flange 6 and water-table 7, so as to prevent the water from passing off the ends of the molding and getting in between the door and jambs. The end plates 13 are held in place by means of screws or other suitable fastenings passing into the ends of the molding, and each of said plates is provided upon its inner surface with an offset or thickened portion or lug 14. This thickened portion or lug is provided with a socket 15 for the trunnion 11 on that end of the strip 9, and is further provided with a segmental recess in which the pin 12 of the strip 9 works, the said pin serving, in connection with the ends of the segmental recess 16, to limit the oscillating movement of the weather-strip 9. The weather-strip 9 being pivoted at its outer edge is capable of swinging downward by gravity at its inner edge, and therefore the inner edge or lower inner corner is chamfered off, as indicated at 17, so that when the door is closed the weather-strip will have a broad bearing against the threshold-strip upon the outer beveled or splayed edge thereof. At the same time the lower vertex or ridge 18 of the strip 9 will drop below the plane of the

upper edge or surface of the threshold-strip, and will thus effectively prevent the admission of water, &c., to the interior of the house. In order to still further guard against the admission of water at the ends of the strip 9, the end pieces or plates 10 are provided with longitudinally-projecting flanges 19, which work inside of the lugs 14 or between the said lugs and the door.

The construction above described provides a simple, inexpensive, and efficient weather-strip, which may be applied to any door and in a variety of other places. Springs and other delicate parts are dispensed with, the strip operating entirely by gravity.

In order to insure the easy lifting of the strip when the door is opened, metallic slides 20 extend over the threshold-strip, preferably at the ends thereof, and mortised into the strip so as to lie flush with the surface thereof.

In summer weather, or when no longer desired, the entire weather-strip may be detached by simply removing the fasteners which pass through the flange 6 of the molding 5.

The active surface of the weather-strip 9 may be faced with rubber or other suitable material, if desired, to afford a close contact and joint between the weather and threshold strips.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

1. The improved weather-strip, comprising a molding secured to the door and formed in its bottom with a longitudinal cove, and an oscillating strip pivoted at its outer edge to said molding and having its swinging edge arranged nearest the door and also chamfered, in combination with a threshold-strip having a splayed surface with which the oscillating strip engages, substantially as described.

2. The improved weather-strip, comprising a molding secured to the door, end plates attached to said molding and projecting above the upper surface thereof, and a hinged weather-strip pivoted at its outer edge between said end plates and having its swinging edge arranged to move in proximity to the door, the inner swinging edge of said strip being also chamfered, in combination with a threshold-strip having a splayed surface with which the swinging edge of the hinged strip engages, and a suitable stop for limiting the downward movement of the hinged strip, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY VOTH.

Witnesses:
P. H. SHIVELL,
W. H. MORRISS.