E. J. FAIRES.

WEATHER STRIP.

APPLICATION FILED APR. 10, 1915.

1,149,355. Patented Aug. 10, 1915.

Fig. 1

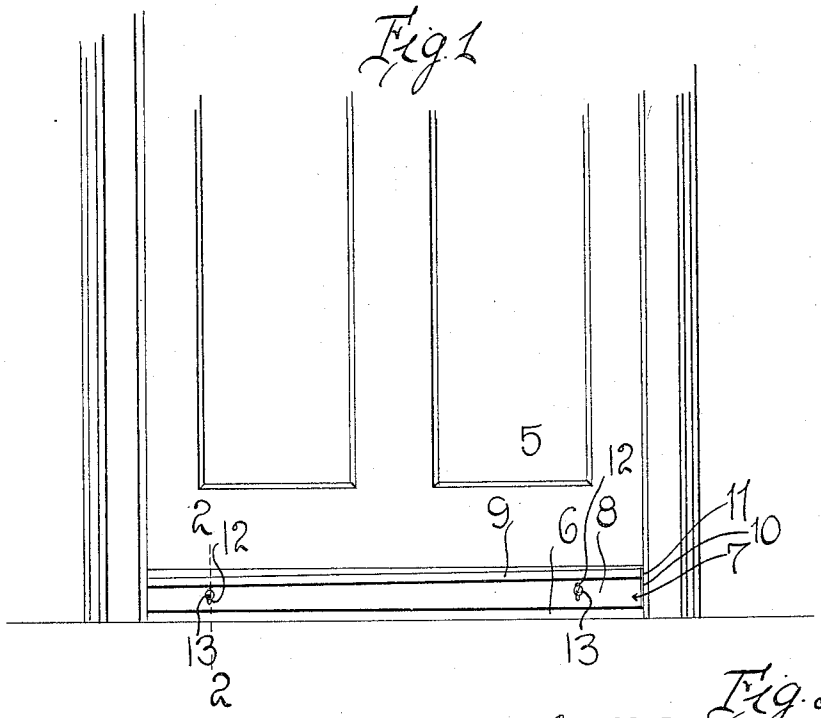


Fig. 2

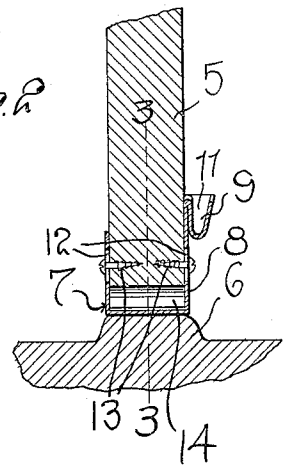


Fig. 3

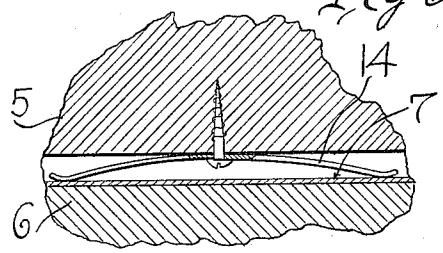
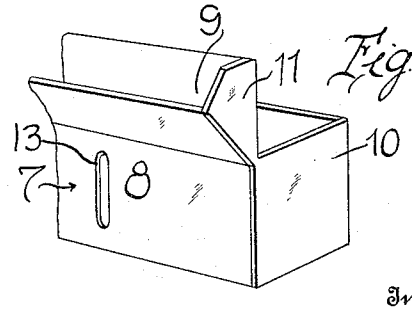


Fig. 4



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WEATHER-STRIP.

1,149,355. Specification of Letters Patent. Patented Aug. 10, 1915.

Application filed April 10, 1915. Serial No. 20,539.

To all whom it may concern:

Be it known that I, ELISHA J. FAIRES, a citizen of the United States, residing at McKinney, in the county of Collin and State of Texas, have invented certain new and useful Improvements in Weather-Strips, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to an improved weather strip for doors, and has for its primary object to provide an improved construction of metallic weather strip which may be readily applied to the lower edge of a door and will effectually exclude rain, snow, sand or dirt, and prevent the same from entering between the lower edge of the door and the threshold.

It is an additional object of my invention to provide a weather strip of the above character having an inclined water collecting gutter extending across the face of the door.

The invention has for another important object to provide means for mounting the weather strip for vertical movement upon the door face, and a spring permanently fixed to the lower edge of the door for yieldably holding the same in contact with the threshold.

With the above and other objects in view, my invention consists in the novel features of construction, combination, and arrangement of parts to be hereinafter more fully described, claimed, and illustrated in the accompanying drawing, in which,

Figure 1 is a side elevation of the lower portion of a door having my improved weather strip applied thereto; Fig. 2 is a section taken on the line 2—2 of Fig. 1; Fig. 3 is a section taken on the line 3—3 of Fig. 2; and Fig. 4 is a detail fragmentary perspective view of the weather strip.

Referring in detail to the drawing, 5 designates a door which is rigidly mounted in any approved manner in the door frame, and 6 designates the threshold above which the lower edge of the door is disposed when the latter is in its closed position.

My improved metallic weather strip, generally indicated by the numeral 7, is constructed from a sheet of metal bent into U-shaped channel form, as clearly shown in Fig. 3. One of the side walls of this channel-shaped strip, shown at 8, is of greater width than the opposed side wall of said strip. The space between these opposed walls is approximately equal to the thickness of the door and the metal channel is adapted to receive the lower edge of said door. The side wall 8 of the metallic channel strip extends upwardly upon the outer face of the door while the other channel strip extends upwardly upon the inner face thereof. The metal weather strip is of a length substantially equivalent to the width of the door, and upon the upper edge of the wall 8 a gutter 9 is formed by bending the upper edge of said wall upon itself in the manner illustrated in Fig. 2. It will be observed, from reference to Fig. 1, that this longitudinally extending channel is disposed at an inclination, said gutter inclining downwardly from the free edge of the door to its hinged edge. One end of the channel shaped strip is closed by the transverse wall 10 which, when the weather strip is applied to the lower edge of the door, abuts against the free edge of said door. This transverse wall is formed with an extension, indicated at 11, which closes the end of the gutter 9 and effectually prevents the water escaping from said gutter at its higher end, in the inward opening movement of the door.

The opposed side walls of the channel-shaped metal strip are provided adjacent their opposite ends with the short vertical slots 12. These slots receive the shanks of screws, indicated at 13, which are threaded into the door, said screws providing guides as well as retaining means for the metal weather strip. To the lower edge of the door 5, a longitudinally extending leaf spring 14 is permanently secured. The free ends of this leaf spring are bent or inclined downwardly and resiliently bear against the horizontal body wall of the metal weather strip. This leaf spring, as will be readily understood, yieldingly holds the weather strip against vertical movement and forces the same downwardly so that the body wall of the strip is normally disposed in spaced relation to the lower edge of the door. Thus, when the door is closed and this intermediate wall of the channel-shaped strip engages the threshold bar, the strip is forced upwardly against the action of the spring 14, so that said spring will act to hold the metallic weather strip tightly in engagement with the threshold bar.

From the above description, taken in connection with the accompanying drawing,

the construction and manner of application of my improved metallic weather strip will be clearly understood.

The device, while of very simple construction, is, nevertheless, highly convenient and serviceable in practical use as the same operates to effectually prevent rain-water, snow, sand or dirt being blown under the lower edge of the door. The device may be very easily and quickly applied to or removed from the door, and by the provision of the inclined gutter, rain water collecting upon the face of the door is received therein and directed toward the hinged edge of the door, at which point it is discharged. As the opposite end of the gutter at the free edge of the door is closed, it will be seen that a sudden opening movement of the door will not result in the water moving upwardly in the inclined gutter and being thrown from the upper end into the hall or room. If desired, the weather strip may be constructed of sheet brass or any other desired metal and ornamented or embellished in any preferred manner so that the same will not detract from the appearance of the door.

It will also be understood that while I have shown and described the preferred construction and arrangement of the several structural features of my invention, the same is, nevertheless, susceptible of considerable modification therein, and I, therefore, reserve the privilege of resorting to all such legitimate changes as may be fairly embodied within the spirit and scope of the invention as claimed.

Having thus fully described my invention, what I desire to claim and secure by Letters Patent is:—

The combination with a door, of a metallic weather strip of channel-shaped form in cross-section to receive the lower edge of said door, one of the side walls of said strip being of greater width than the other and extending upon the outer face of the door, said wall having a longitudinally inclined gutter formed upon its free edge, the opposed walls of the metal strip having vertical slots therein, screws threaded in the door and disposed through said slots to limit the vertical movement of the weather strip, and a leaf spring fixed to the lower edge of the door and having free end portions resiliently engaging the intermediate wall of the channel-shaped weather strip to force the same downwardly and yieldingly hold the strip upon the threshold bar.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ELISHA J. FAIRES.

Witnesses:
J. F. DULANEY,
J. E. TAYLOR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."