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S. MADSEN

2,077,845

WEATHER STRIP STRUCTURE

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Fig. 5.

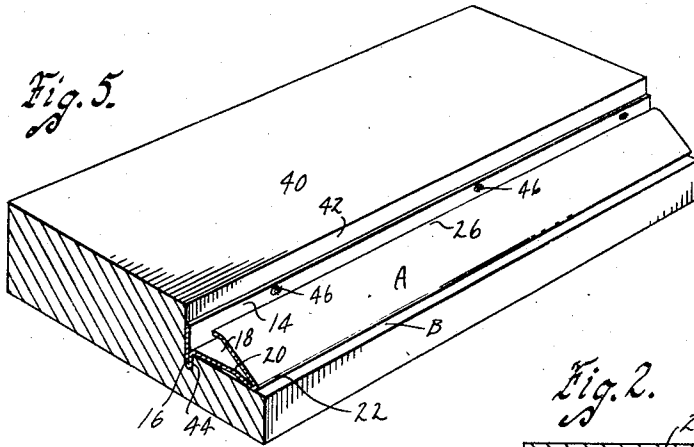


Fig. 3.

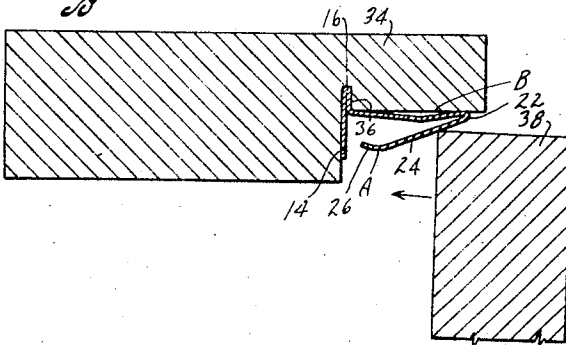


Fig. 2.

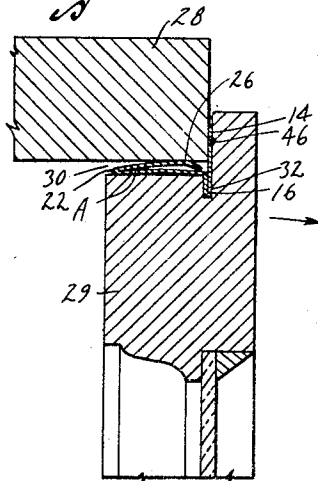


Fig. 4.

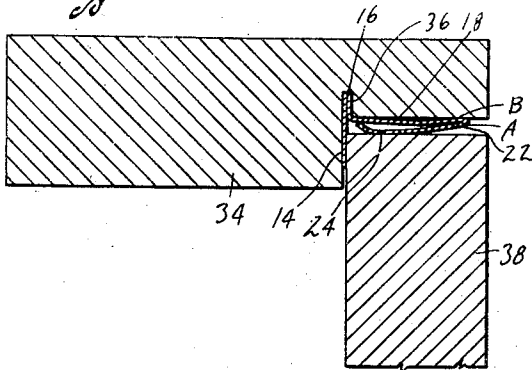
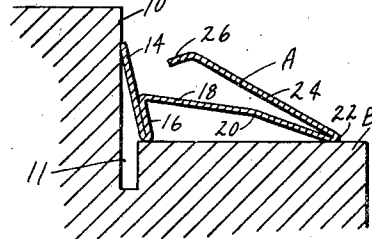


Fig. 1.



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WEATHER STRIP STRUCTURE

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4 Claims. (Cl. 20—69)

My invention relates to a novel form of resilient weather-strip and to the combination thereof with a building structure.

It is a particular object of my invention to provide a resilient weather-strip so shaped and constructed that it can be installed in place ready for use without the employment of nails, screws or the like, and will be held in such installed position by its own resiliency.

Another object is to provide such a strip in combination with a particular shape of jamb or other building member adapted to coact with such a weather-strip.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my weather-strip structure, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawing, in which:

Figure 1 is a horizontal, sectional view of a door or window jamb shaped to coact with my improved weather-strip, a section of the weather-strip being shown in its position after manufacture, and before it is sprung into cooperating relation with the jamb.

Figure 2 is a cross section of a square-edged jamb with a rabbeted or lipped door or window, having my improved weather-strip installed.

Figure 3 shows a horizontal section of a square-edged door or window with a rabbeted jamb having my weather-strip installed.

Figure 4 is a view similar to that in Figure 3, showing the window or door in closed position and the weather-strip compressed thereby; and

Figure 5 is a perspective view of a rabbeted jamb having my weather-strip installed thereon.

My weather-strip A is made of resilient material, such for instance as sprung bronze formed from a strip of metal into the shape having a cross section such as shown in Figure 1.

The weather-strip is intended to be applied to a door, window or jamb member B, having a rabbet indicated at 10. The walls of the rabbet are substantially at right angles to each other and also at right angles to the faces of the jamb.

At the intersection of the faces of the rabbet 10, a longitudinal anchoring groove is cut in one face. One wall of the groove 11 is an extension of the other face of the rabbet 10.

The weather-strip A has what I may call a seating leg 14. At one edge of the seating leg, the material is folded over to form the anchoring loop or fold 16.

From the edge of this loop 16, the material of the anchor strip is bent away at an acute angle slightly less than a right angle to the line forming a leg 18, which has a longitudinal bend 20, by which the material in section forms an obtuse angle.

At the edge of the leg 18 farthest from the fold 16, the material is bent over on itself as at 22 and then extends toward the leg 14, but at an angle to the leg 18, forming a leg 24, the free edge of which is in-turned as at 26.

The parts are so shaped that in installing the weather-strip A, it is sprung for inserting the fold 16 snugly into the groove 11.

In Figure 2, I have shown the square-edged jamb 28 and the window or door 29 with the rabbet 30 in one wall of which is formed a groove 32 to receive the fold 16.

In Figures 3 and 4, I have shown the rabbeted jamb 34 with the groove 36 for the fold 16 and the square-edged window or door 38.

In Figure 5, I have shown a jamb 40 with a rabbet 42 and the groove 44 to receive the fold 16. Figure 5 illustrates the weather-strip properly installed on the jamb.

Returning to Figure 3, it will be observed that the window or door 38 is shown just as it approaches closed position and engages the leg 24 of the weather-strip A.

In Figure 4, the door or window is shown in full closed position with the leg 24 compressed. When in this position, the weather-strip will prevent the passage of dirt or air between the jamb and the window or door.

When the weather-strip is installed, the spring of the metal will draw the bend 22 snugly against one face of the rabbet or of a groove, if the weather-strip is installed in a grooved jamb or the like. The bend 20 makes it certain that the bend 22 will always snugly engage the face of the rabbet. The pressure on the sealing strip A helps to keep the weather-strip firmly in place.

The resiliency of the weather-strip will hold it in installed position without the necessity for using nails or screws or the like.

If it is desired to more securely fasten the weather-strip in place, a nail or punch may be used for punching pointed lugs 46 from the leg 14, and into the wood of the door or jamb. This may be done in such a way as to form a barb of metal driven into the wood.

If it is desired to remove the strip, a thin blade may be run along between the leg 14 and the wood of the jamb. The strip can thus be easily

removed by pulling the fold 16 out of the groove in which it has been seated.

Because of the width of the leg 18 from the fold 16 to the bend 22 and because of the corresponding width of the leg 24, the weather-strip is provided with an ample travel yield.

A weather-strip of this kind is free from any wrinkling or distortion such as is frequently encountered in weather-strips fastened by nails or other metal jambs.

The claims appended hereto are intended to cover any modifications in the construction and arrangement of parts which may be reasonably included within their scope and the scope of my invention. For example, while I have illustrated my weather-strip as installed in connection with windows or doors of the swinging type, it will be obvious that it could be used with sliding doors or sash.

I claim as my invention:

1. The combination of a supporting member having a rabbet and a groove formed in one wall of the rabbet, one wall of the groove forming an extension of the other wall of the rabbet, with a resilient weather-strip having a seating leg in the form of a flat strip-like portion engaging a wall of the rabbet, a fold at one edge thereof received in the groove as a seating anchor, an extension leg inclined from the fold at an acute angle of slightly less than a right angle and resiliently engaging the other wall of the rabbet, whereby the weather-strip is held in place, and a leg inclined from the outer edge of said extension leg at an acute angle thereto and toward the seating leg.

2. A weather-strip adapted for use between a closure member and a frame member, one of said

members having a rabbet provided with an anchoring groove at the intersection of the walls of the rabbet, said weather-strip being provided with an anchoring leg received in said groove, a leg extending from said leg at slightly less than a right angle and engaging at its edge farthest from the first leg the wall of the rabbet in which the groove is formed and a resilient leg inclined from said last edge over and away from the extension leg.

3. A weather-strip adapted for use between a closure member and a frame member, one of said members having a rabbet provided with an anchoring groove at the intersection of the walls of the rabbet, said weather-strip being provided with an anchoring rib received in said groove, a leg extending from said rib at slightly less than a right angle and engaging at its edge farthest from the rib the wall of the rabbet in which the groove is formed and a resilient leg inclined from said last edge over and away from the extension leg, said extension leg having a lengthwise bend between its side edges.

4. A combination of a frame member having a rabbet at one edge and provided with a groove in one wall of the rabbet at the intersection of the rabbet walls, with a weather-strip, comprising an anchoring portion received in said groove, a leg extending from said strip at an angle slightly less than a right angle with relation thereto the bend between the anchoring portion and the leg being such as to cause snug resilient contact between the free edge of the anchoring portion and the edge of the extension leg farthest therefrom and one wall of the rabbet and one wall of the groove.

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