July 15, 1941. C. A. HANINGTON 2,249,424

WEATHER STRIP

Filed Oct. 24, 1939

Fig. 1.



Fig. 3.

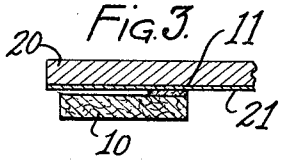


Fig. 2.

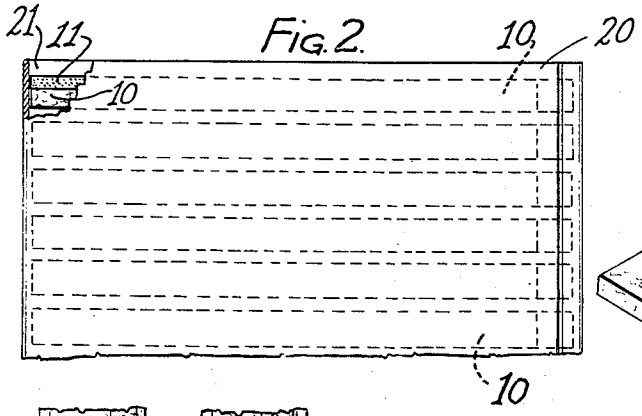


Fig. 4.

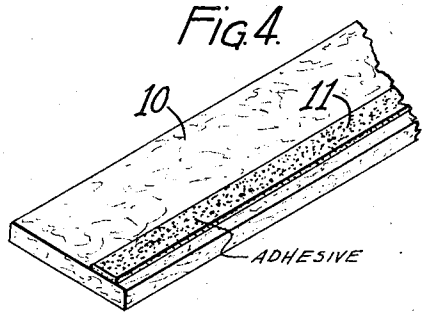
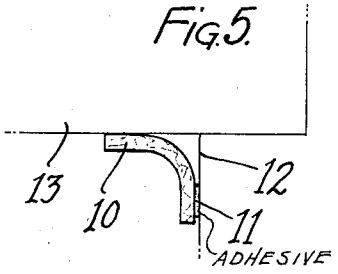


Fig. 5.



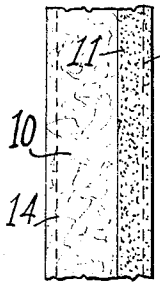


Fig. 6.

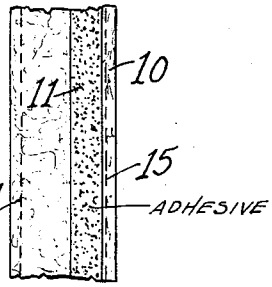


Fig. 8.



Fig. 7.

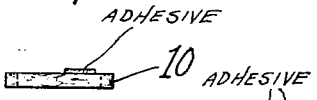


Fig. 9.

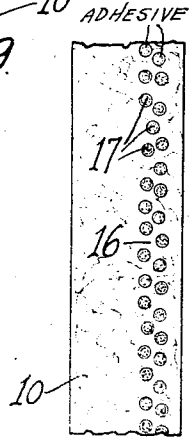


Fig. 10.

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2,249,424

WEATHER STRIP

Charles A. Hanington, Freeport, N. Y.

Application October 24, 1939, Serial No. 300,902

1 Claim. (Cl. 20—69)

This invention relates to weather strips and in particular to a type that can be attached to doors or windows with a minimum of effort, without the use of metallic fastening means and which can be readily removed as desired.

Weather stripping of the kind employed on the outer or inner surfaces of sash frames as distinguished from the metallic weather strips embedded in the sash frames has heretofore been tacked or nailed along one edge to the sash frame or window and so arranged that the opposite edge engages the moving part of the window structure. The use of metallic fastening means is objectionable because they mutilate the weather strip, do not hold it at all points securely against the supporting surface and consequently permit the entrance of cold air. In order to overcome the objectionable features encountered, I have provided a window sealing strip that employs a felt, leather, rubber or other suitable material and which is provided directly with a zone of adhesive that is pressure sensitive, that remains adhesive, such for instance as latex and which permits the proper fitting of the strip to the window, allows removal thereof without marring the sash frame and also permits the use of the strip in connection with metallic window constructions.

A still further object of the invention is to provide a package for the weather strip, due to the fact that the pressure sensitive fastening means must be kept from contacting with the strip itself when the latter is folded in a package. To this end I have provided a package having an inside surface to which the weather stripping may be secured, the surface being waxed, non-fibrous or otherwise treated so that the weather stripping, while being temporarily held in position in the package, can be readily removed for use without impairing the sticking quality of the adhesive. The package is also of simple construction, as is the weather stripping so that it can be sold at small cost.

Still further objects of the invention are the provision of reinforcing means in the weather strip, and the placing of the adhesive in well defined zones.

Changes and variations may be made in the constructions shown and described without departing from the principles of the invention or sacrificing its chief advantages; hence such invention is not to be restricted to the precise structures shown in the drawing, in which:

Figure 1 is a side edge view of a package in which weather stripping forming the subject of my invention is encased,

Figure 2 is a plan view of said package,

Figure 3 is an enlarged section on the line 3—3 of Figure 1 showing the method of attaching the weather strip within the package,

Figure 4 is a view in perspective of an end of a piece of weather stripping as made in accordance with my invention,

Figure 5 is a diagrammatic view showing the position the strip occupies on the sash,

Figure 6 and Figure 8 are each plan views of methods of placing the adhesive zone on the strip,

Figures 7 and 9 are end views of the strips shown in Figures 6 and 8, respectively, and

Figure 10 is a plan view of a strip having the adhesive applied thereto in the nature of a zone of spots.

Referring to the drawing in detail, 10 indicates, in all of the figures, the weather strip which may be of any suitable material such as felt, rubber, leather or the like and which is long and narrow and is sold in strips of suitable length so that it can be cut to fit any window.

The strip 10 is provided on one face with a zone of adhesive material which is pressure sensitive, such as latex which is non-drying and retains its adhesive character after repeated use. As seen in Figures 8 and 4, this zone of adhesive 11 is located inwardly from one edge of strip 10, while as seen in Figure 6, it begins at the edge of the strip and extends inwardly. The function of the adhesive zone 11 is to secure the weather strip 10 to the sash frame 12 so that the strip will bear against the window frame 13 and effectively seal the joint between the window and the sash frame against the weather, as shown in Figure 5.

In Figures 6 and 8, the felt strip is illustrated as having rows of stitching 14 and 15 alongside both edges for the purpose of providing a reinforcement to prevent fraying of the strip and to prevent endwise distortion of the strip as it is drawn away from a holding surface. In Figure 8, the zone of adhesive 11 does not cover one line of the stitching while in Figure 6, the row of stitching is covered by the adhesive, and while only two rows are shown it is understood that any number may be employed as desired.

In Figure 10, the zone of adhesive 16 comprises spots 17 of the adhesive material which may be printed on the strip 10. In this form, the stitching may be employed as deemed necessary.

In the forms of the invention employing the

weather strip 10 and adhesive zone, as the adhesive is non-drying the weather strips in any form illustrated may be readily removed in the spring and replaced in the fall, being stored meantime in the original package which contains the strips as sold. This package as illustrated in Figures 1 and 2 consists of a folder 20 of heavy paper or the like whose inner surface 21 is waxed, or calendered or non-fibrous so that the adhesive 11 of the weather strip 10 holds the latter securely in rows in the folder and permits said strips to be readily removed for use or replaced for storage. The outer surface of the folder may be used for printing and the folder may be of any size depending upon the yardage of weather stripping contained therein. In the package, the adhesive surface of the weather strips is thus engaged with the surface of the package and no sticking of one weather strip with another is possible. The adhesive eliminates the necessity of employing any other securing means such as nails, glue or fasteners.

The reason for having the adhesive zone on one side of the strip only, is to permit the sash to be raised or lowered at will and still keep the strip pressing arcoss the crack between the frame and the sash. If the entire surface was covered with adhesive, it would bind the sash and frame and prevent free raising or lowering of the window.

While I have illustrated and described my invention with some degree of particularity, I realize that in practice various alterations therein may be made without departing from the spirit of the invention or the scope of the appended claim.

What I claim is:

A weatherstrip comprising an elongated strip of air resistant material presenting sides and edges, reinforcing lines of stitching extending lengthwise of the strip and disposed in the sides thereof adjacent said edges, a relatively narrow zone of pressure sensitive adhesive on one side of the strip extending lengthwise thereof and covering a line of said stitching and impregnating said strip material and stitching, and the non-adhesive portion of said side constituting a draft resisting surface.

CHARLES A. HANINGTON.