I. H. ATHEY.

WEATHERPROOFING.

APPLICATION FILED MAY 6, 1909.

1,004,336.

Patented Sept. 26, 1911

2 SHEETS—SHEET 1.

Fig. 1

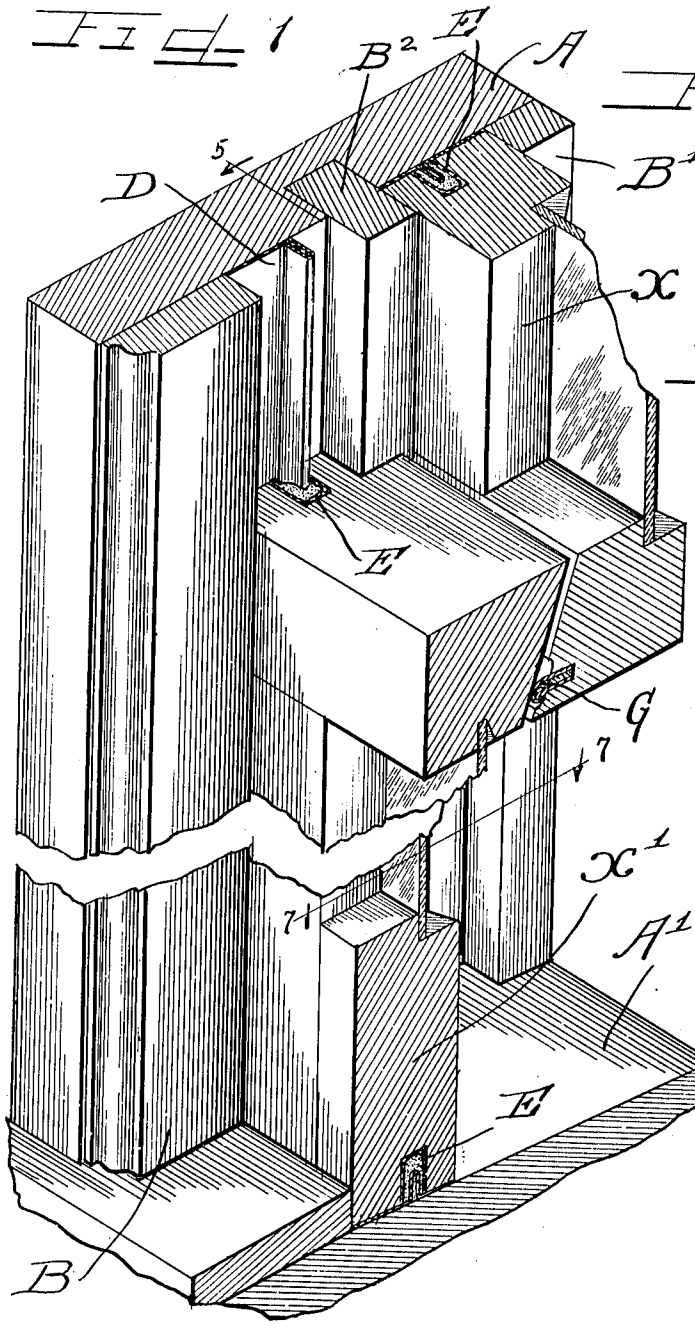


Fig. 2

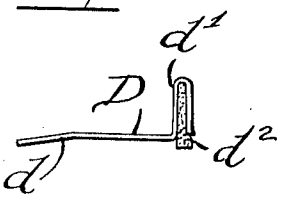


Fig. 3

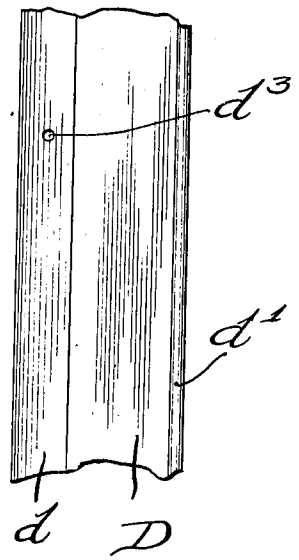
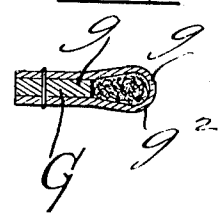


Fig. 4



Witnesses

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2 SHEETS—SHEET 2.

Fig. 5

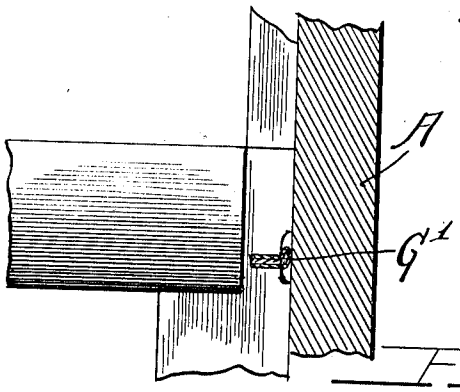


Fig. 6

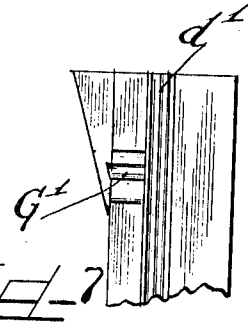


Fig. 7

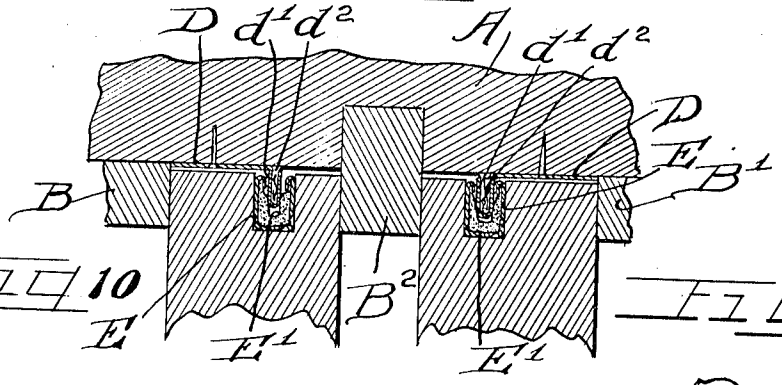
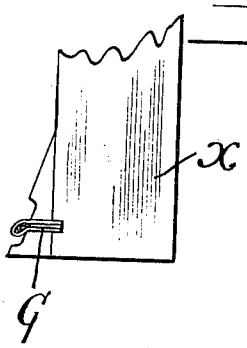
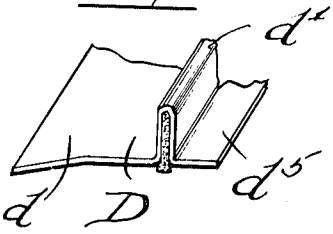


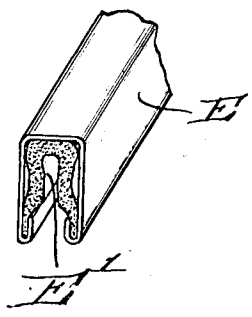
Fig. 10

Fig. 8

Fig. 9







Witnesses

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UNITED STATES PATENT OFFICE.

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WEATHERPROOFING.

1,004,336. Specification of Letters Patent. Patented Sept. 26, 1911.

Application filed May 6, 1909. Serial No. 494,385.

To all whom it may concern:

Be it known that I, ISAAC H. ATHEY, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Weatherproofing; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of weather proofing materials set forth in my prior application for United States Letters Patent filed on the 23rd day of November, 1908, Serial No. 463,959.

The object of this invention is to afford a weather strips adapted to positively engage upon the jamb or sill of the opening to be guarded to exclude the wind therefrom, and affording also an interior resilient and absorbent strip adapted to afford a packing against the jamb or sill, (as the case may be), to prevent the passage of air beneath the strip.

The invention also has for its object the application of weather proofing materials to windows or the like to exclude the wind and dust and to afford in connection with such a device means for packing the space between the parting rails and the space at the ends of the sash at the points where the parting rails overlap to close a space which would ordinarily permit draft.

The invention consists in the matters hereinafter described and more fully pointed out and defined in the appended claims.

In the drawings: Figure 1 is a fragmentary perspective view partly in section and partly in elevation illustrating the application of my weather proofing for windows. Fig. 2 is an enlarged transverse section of the male member of the weather guard. Fig. 3 is a fragmentary top plan view thereof. Fig. 4 is an enlarged transverse section of the packing or strip between the parting rails. Fig. 5 is a section on line 5—5 of Fig. 1 and illustrates the end stops for the side rails of the sash at the parting rails. Fig. 6 is a side elevation of the sash showing the same removed from the frame and illustrating the end stops shown in Fig. 5, Fig. 7 is a section on line 7—7 of Fig. 1. Fig. 8 is an enlarged fragmentary perspective view of the female member of the weather guard. Fig. 9 is a similar view of a modified form of the male member. Fig. 10 is an end view of the parting rail for the upper sash.

As shown in the drawings: A, indicates the window jamb, B, the inner stop, B′ the blind stop, B^2, the parting strip, and A′, the sill. Slidable between the blind stop B′, and parting strip B^2, is the upper sash indicated as a whole by X, and between the inner stop and parting strip is the lower sash, indicated by X′, which are, of course, constructed in the usual or any suitable manner.

Secured vertically between the parting strip and inner stop at the lower end of the frame, and between the parting strip and blind stop for the upper portion of the frame, are the male guard members, which consist, as shown, of a strip of suitable sheet metal bent to afford a broad flange D, one edge *d*, of which is bent downwardly therefrom at a slight angle and the other edge *d′*, of which is bent upwardly at a right angle with the plane of the flange D, and is bent over and downwardly, as shown in Fig. 2, and engages a strip of felt d^2, in the loop thus formed, the bottom of said strip of felt extending slightly below the flange *d*, as shown in Fig. 2. In securing said strips in place, apertures d^3, are provided in the flange *d*, through which tacks or nails may be driven to engage said member to the jamb, the flange, of course, serving as a guide to correctly space the rib *d′*, with reference to the face of the sash, and if desired, of course, the downturned margin of the strip on the side opposite the flange *d*, may be bent outwardly, as shown at d^5, in Fig. 9, to correctly space said rib, the proper distance from the parting strip. When a flange is provided on each side of the ribs *d′*, it is obvious that the rib may be spaced by either flange from either the inner or blind stop or the parting strip to locate the rib most desirably with reference to the sash rail and the manner in which the sash is hung in the frame. In the same manner one of said male guard members is secured on the sill A′, and rabbeted into the side and bottom rails of the sash are the female members E. These are identical with those heretofore described in my prior application and comprise a strip of metal bent to U form with the margins turned inwardly and upwardly, as shown in

Fig. 8, and positively engaging therebetween the margins of a strip of felt E′, between which the rib d', of the male member engages. As shown also, a packing strip G, is secured horizontally in the inner face of the upper parting rail in position to bear against the inclined face of the parting rail for the lower sash so that when the sashes are closed, said packing strip shall be slightly compressed between said parting rails, thus excluding draft. Said packing strip, as shown, comprises a strip g, which may be of fiber or any suitable material and on opposite sides of which are secured the margins of a strip g', of cravinette, rubber cloth, or any suitable material not likely to be affected by the weather, and inclosed by the loop thus formed in the fabric is a filling of coarse hair or other suitable material g^2, adapted to be pressed in bringing the sash together but sufficiently resilient to spring the sash outwardly to regain its normal form after the pressure of the sash is released. As shown also, a short piece of said packing strip G^1, is inserted in a transverse rod or recess in the outer face or edge of the lower sash near the top thereof to bear against the jamb and if desired, in a similar manner a packing strip may be inserted in the edges of the upper sash opposite the parting rail thereof, thus preventing draft and dust finding access through the window at the parting rails.

The operation is as follows: In securing the male guard member in place the nails or tacks inserted through the aperture d^3, serve to spring the flange D, downwardly, thus pressing the downwardly turned margin d, thereof very firmly upon the face of the jamb or sill, and at the same time pressing the felt web, lining the inner side of the rib, upon the face of the jamb or sill, in consequence very effectively preventing dust or dirt passing beneath said strip. Of course, the rib d', may be positioned with reference to the various stops and parting strip by using the broader flange D, as a gage or narrower flange d^5, as a gage as the form shown in Fig. 9, thus enabling said strip to be secured in any one of four different positions in the groove for the sash without necessitating cutting the strip.

Of course, I am aware that strips embodying my invention may be applied otherwise than as herein described and I have attempted to show but one of several practical applications of my invention. I therefore do not purpose limiting this application for patent otherwise than necessitated by the prior art.

I claim as my invention:

1. A weather strip embracing a strip of sheet metal bent to afford a U shaped rib intermediate its edges, a strip of felt secured within said rib and projecting below the strip, a channel bar and a lining of fabric for the walls of the channel bar bearing on each side of the U shaped rib.

2. In a device of the class described a strip of metal, a strip of fabric secured thereto by folding the longitudinal edges of the metal over the edges of the strip of fabric and the width of the fabric between the folded edges of the metal being greater than the width of the metal between said folded edges.

3. In a device of the class described a metallic strip folded to form a longitudinal channel and a fabric strip secured in the channel by folding the edges of the metallic strip over the edges of the fabric strip and the fabric strip being of greater width between the folded edges of the metal than the width of the metal, thereby bulging the fabric away from the sides of the metallic channel.

4. A guard strip embracing a sheet metal strip having the edges turned over and inwardly, a strip of fabric engaged by said inwardly folded edges on the sheet and of greater width than the distance between said folded portions.

5. In a device of the class described a metallic strip shaped to provide a channel and a lining of fabric secured in the channel with the sides arched inwardly from the sides of the channel.

6. In a device of the class described a metallic channel member and a fabric strip lining the channel having the sides thereof wider than the sides of the channel and buckled inwardly.

7. In a device of the class described a channel member, a rib adapted to engage therein and a fabric lining for the channel member having the sides forced inwardly to bear against opposite sides of the rib.

8. In a device of the class described a metallic channel member and a layer of fabric lining the channels having the opposite sides forced inwardly to provide a narrow channel between the same.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

ISAAC H. ATHEY.

Witnesses:
K. E. HANNAH,
J. W. ANGELL.