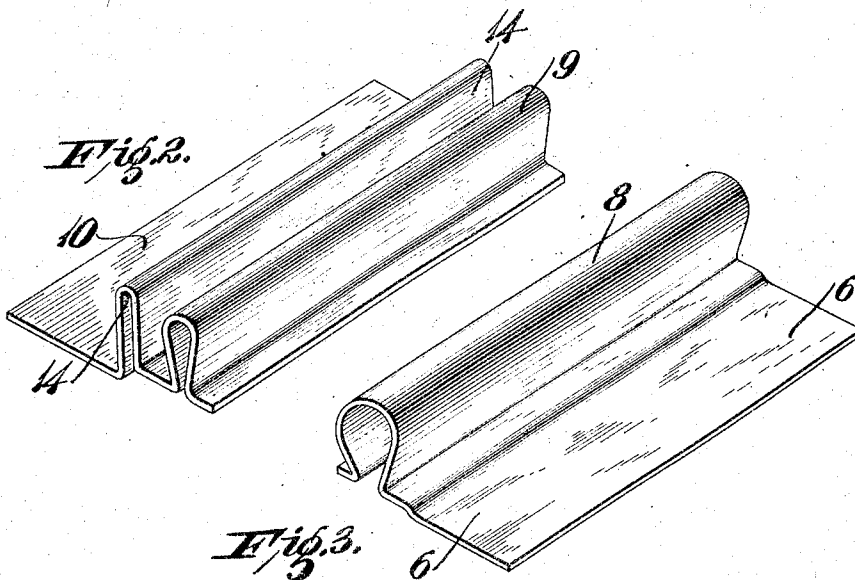
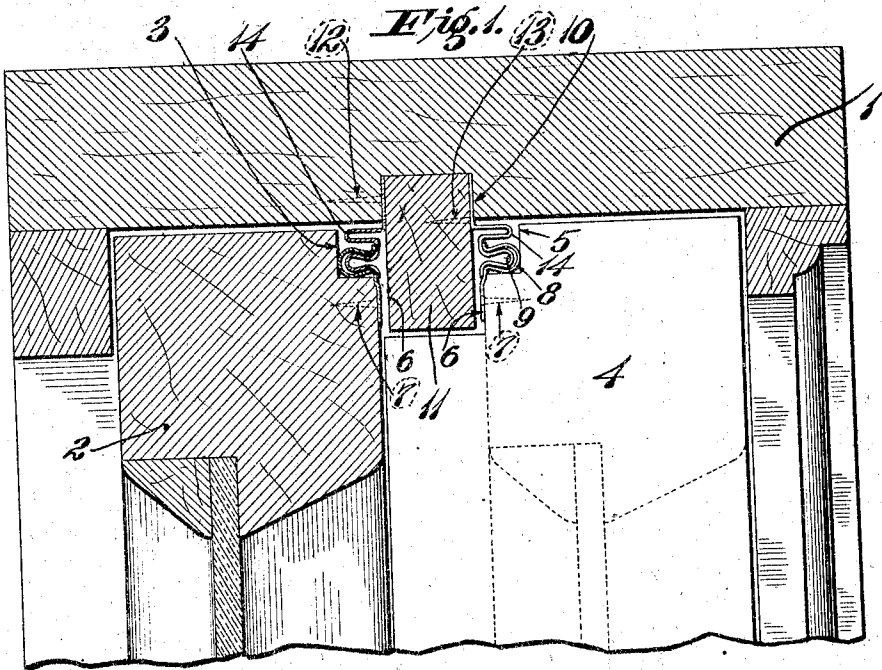


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METAL WEATHER STRIP  
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1,020,993.

Patented Mar. 26, 1912.



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# UNITED STATES PATENT OFFICE.

ALFRED M. LANE, OF ST. LOUIS, MISSOURI.

## METAL WEATHER-STRIP.

1,020,993.

Specification of Letters Patent. Patented Mar. 26, 1912.

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*To all whom it may concern:*

Be it known that I, ALFRED M. LANE, a citizen of the United States, and a resident of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in Metal Weather-Strips, of which the following is a specification.

The invention relates to weather strips and more particularly to those made of metal and applied to wooden frames and sashes.

It has for its principal objects to prevent binding and insure an easy movement of the sash when it swells and shrinks, due to climatic changes; and to attain certain other advantages hereinafter more fully appearing.

The invention consists in the novel construction, arrangement and application of a flexible or resilient strip in conjunction with a cooperating relatively rigid strip, and in the parts and arrangements and combinations of parts hereinafter described and claimed.

In the accompanying drawing which forms part of this specification and wherein like symbols refer to like parts wherever they occur, Figure 1 is a fragmentary horizontal section through one side of a window casing, the line of section being taken just above the lower sash and through the lower portion of the upper sash, to show a practical adaptation of my invention; Fig. 2 is a fragmentary perspective view, on an enlarged scale, showing a practical form of resilient strip; Fig. 3 is a similar view showing the cooperating rigid strip; and Fig. 4 is an end view of the two strip members joined.

In the drawings, a portion of an ordinary window frame 1 is shown as arranged for upper and lower sliding sashes. The inner vertical corner of the upper sash 2 is rabbeted as at 3 to make room for the cooperating beaded portions of the weather strip members hereinafter described; and the lower sash 4 is likewise rabbeted as at 5.

On each of the sashes is mounted a relatively rigid metal strip 6 which is fastened by brads or tacks 7. The strip 6 has a rolled or beaded portion 8 to provide an undercut groove at its free marginal portion in which an undercut bead or rib 9 on the free marginal portion of a relatively resilient strip 10 slides.

The resilient strips 10 are preferably ap-

plied by inserting their flat base portions in the groove of the frame 1 which receives the parting strip 11. Preferably, one of the weather strip members is inserted before the parting strip and it is secured by brads or tacks 12 to the side wall of the groove. Then the parting strip is placed in position and the other weather strip member is secured to the parting strip by brads or tacks 13 close to the face of the frame 1.

The strip 10 which is preferably made of bronze or some other suitable resilient metal is provided with a rebent portion 14 which extends longitudinally adjacent to the rib 9. This rebent portion is preferably substantially U-shape in cross section and the portion of the strip at the base of the rib 9 and the side of the rebent portion adjacent thereto is offset some distance from the base portion which lies on the opposite side of the rebent portion 14. This is to permit the projecting portion of the strip 10 to have considerable movement without binding against the parting strip 11. So, too, the portion of the rigid strip 6 on which the grooved bead is formed is also offset from the base portion a distance corresponding substantially to the thickness or gage of the metal comprising the resilient strip.

In practice, the window sashes may be fitted to the frame with considerable looseness so as to allow for swelling in damp weather without causing them to bind. Should the sashes swell, the rebent portions 14 of the resilient strips 10 will yield to allow the interlocked ribbed and grooved portions of the two cooperating strips to move toward the frame without changing their form. It will also yield should the sash shrink so as to pull the interlocked beads away from the frame. The binding of the cooperating strips and the tendency to spread the mouth of the groove bead is thereby obviated.

Obviously, the device admits of considerable modification without departing from my invention. Therefore, I do not wish to be limited to the specific construction and arrangement shown.

What I claim is:

1. A weather strip comprising two metal strips, the one secured to the window frame and the other to the window sash, one of said strips being relatively rigid and having a longitudinally grooved portion and the other strip having a longitudinally ribbed

portion fitted in the grooved portion of the other strip so as to slide lengthwise therein but interlocked against lateral movement with respect thereto, said second mentioned strip having a flexible rebent portion throughout its length adjoining the ribbed portion whereby the cooperating ribbed and grooved portions of the two strips are permitted joint lateral movement independent of the base portion of said strip provided with the flexible rebent portion.

2. A weather strip comprising two metal strips, the one secured to the window frame and the other to the window sash, one of said strips being relatively rigid and having an undercut groove extending lengthwise thereof and the other strip being relatively flexible and having an undercut rib extending lengthwise thereof and slidably fitted in said undercut groove in the other strip, said flexible strip having a rebent portion extending lengthwise thereof adjacent to the rib.

3. A weather strip comprising a relatively flexible metal strip having a flat base portion adapted to be fastened throughout its length and an intermediate rebent portion extending lengthwise of said strip, the sides of said rebent portion being spaced apart, said strip having an outwardly offset free marginal portion at the side of said rebent portion opposite to the base portion, said free marginal portion having an outwardly projecting undercut rib extending lengthwise thereof, and a second metal strip which is relatively rigid and adapted to be secured throughout its length near one margin, the opposite marginal portion of said strip having an outwardly projecting undercut grooved portion extending lengthwise thereof and slidably fitted over the rib on said first mentioned strip.

4. A weather strip comprising a relatively flexible metal strip having a flat base portion adapted to be fastened throughout its length and an intermediate rebent portion extending lengthwise of said strip, the sides of said rebent portion being spaced apart, said strip having a free marginal por-

tion at the side of said rebent portion opposite to the base portion, said free marginal portion having an outwardly projecting rib extending lengthwise thereof and being offset outwardly with respect to said base portion, and a second metal strip which is relatively rigid and adapted to be secured throughout its length near one margin, the opposite marginal portion of said strip being offset outwardly and having a groove extending lengthwise thereof and slidably fitted over the rib on said first mentioned strip.

5. A weather strip comprising two cooperating metal strips, the one secured at its margin to the window sash and the other likewise to the window frame, one of said strips being resilient and the other relatively rigid, the cooperating free marginal portions of the two strips being slidably connected to move longitudinally with respect to each other but being otherwise interlocked against separation, the intermediate portion of said resilient strip being free and rebent longitudinally throughout its length so that the engaged portions of the two strips are permitted joint lateral movement independent of the base portion of said resilient strip.

6. A weather strip comprising two metal strips, the one secured at its margin to the window frame and the other likewise to the window sash, said strips having, respectively, a rib and a groove at their free margins slidably fitted the one within the other so as to move longitudinally but being otherwise interlocked against separation, one of said strips being resilient and having an expansible and contractible free intermediate portion whereby the cooperating ribbed and grooved portions of the strips are permitted joint lateral movement independent of the fastened portion of said resilient strip.

Signed at St. Louis, Mo., this 18th day of August, 1911.

ALFRED M. LANE.

Witnesses:

G. A. PENNINGTON,  
PAULINE AMBERG.