No. 886,573. PATENTED MAY 5, 1908.

A. S. AIMAN.

WEATHER STRIP.

APPLICATION FILED MAY 4, 1907.

FIG. 1.

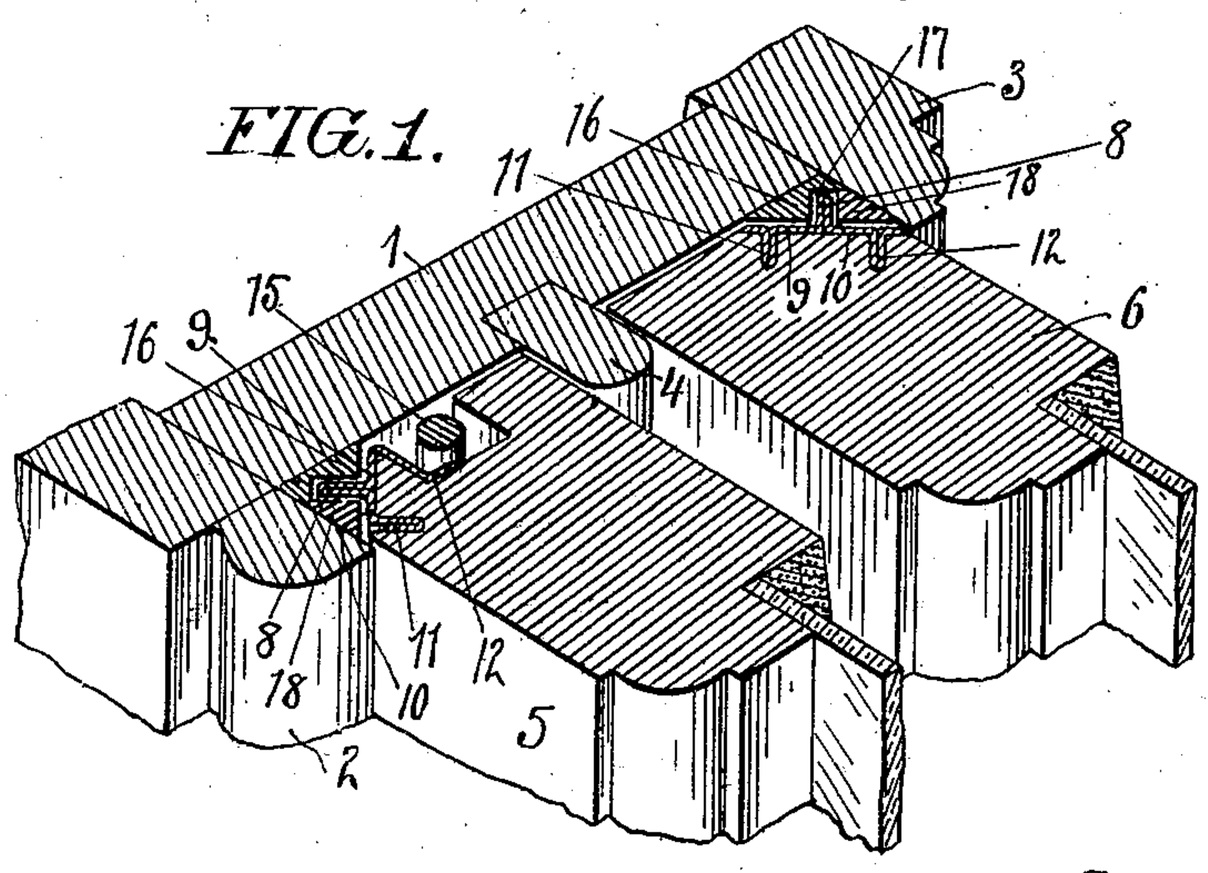


FIG. 2.

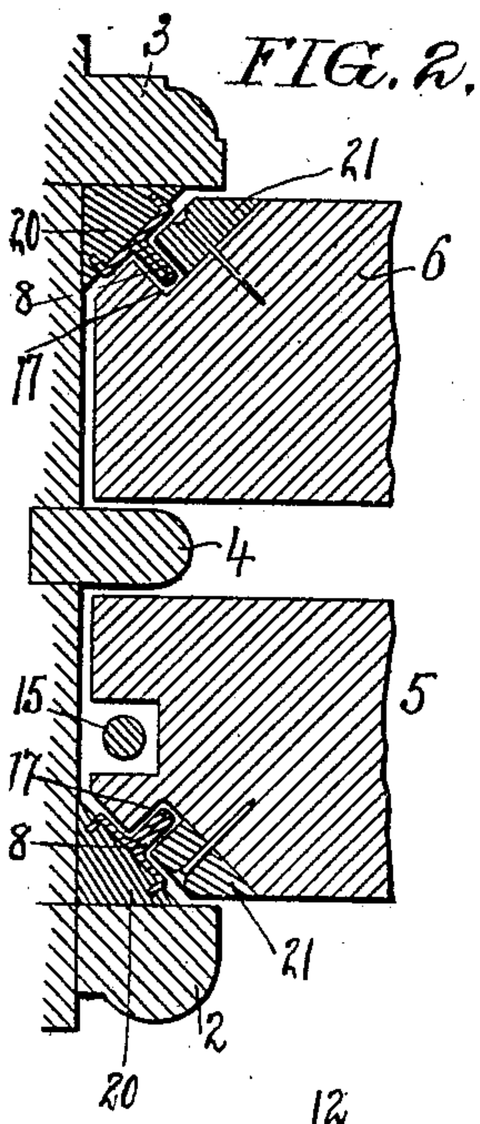


FIG. 3.

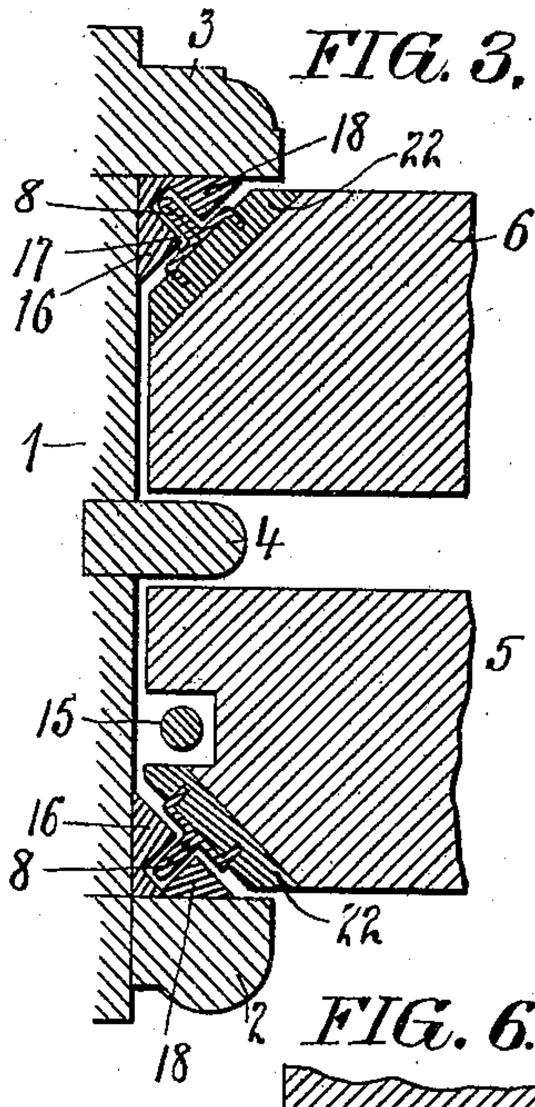


FIG. 4.

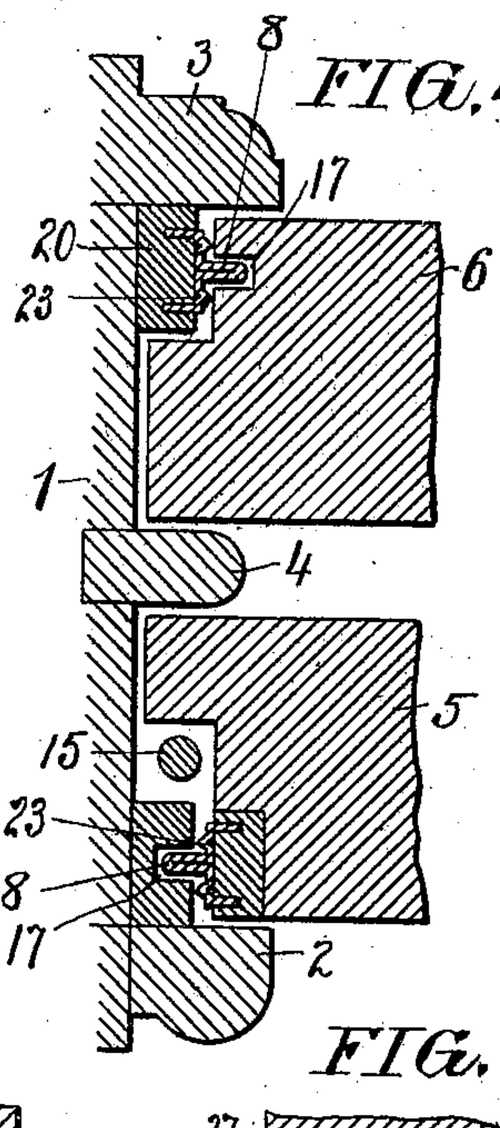
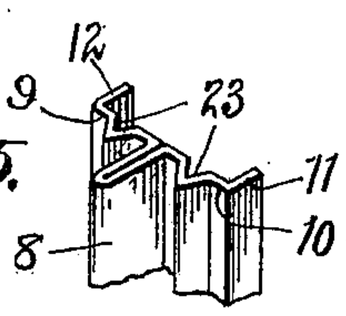
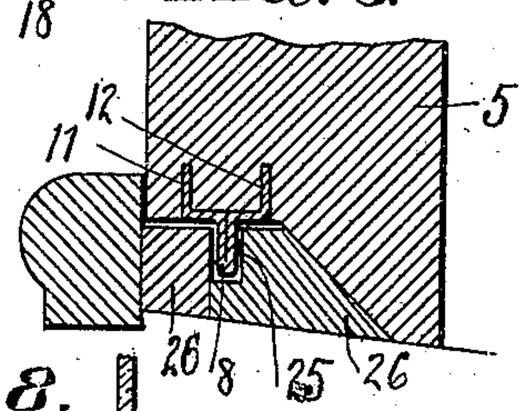


FIG. 6.

FIG. 7.

FIG. 5.





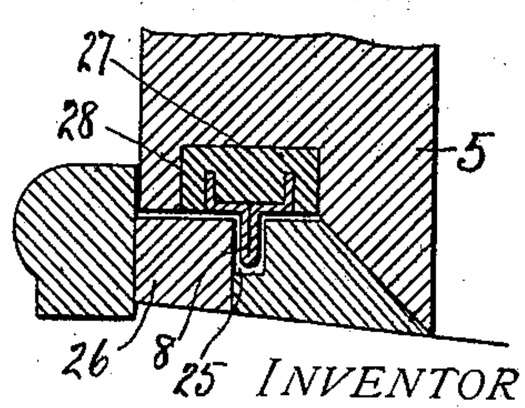
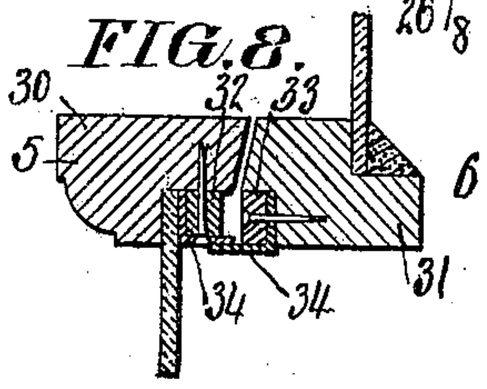


FIG. 8.



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WEATHER-STRIP.

No. 886,573. Specification of Letters Patent. Patented May 5, 1908.

Application filed May 4, 1907. Serial No. 371,792.

To all whom it may concern:

Be it known that I, ALBANUS S. AIMAN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Weather-Strips, of which the following is a specification.

My invention relates to improvements in a weather strip for windows, and consists of a metal strip, secured to either the window-frame or the window sash, and a tongue upon said metal strip adapted to enter a slot formed in either the sash or window-frame, depending upon to which the weather strip is secured.

A further object of my invention is to provide a strip of wood to which is secured the metal strip so that the same may be more readily secured and adjusted.

A still further object of my invention is to set the weather strip diagonally so that the sash will bear against a beveled surface instead of abutting against a right-angle surface as in the ordinary window construction.

Referring to the drawings:—Figure 1 is a sectional perspective view showing a portion of the window-frame and sashes with my improved weather strip attached thereto; Fig. 2 is a horizontal section of the window-frame and sashes, showing the weather strip attached to the window-frame; Fig. 3 is a view similar to Fig. 2 showing the metal weather strip secured in a wooden strip, which in turn is attached to the sash; Fig. 4 is a similar view showing a different form of metal strip; Fig. 5 is a detail perspective view of the weather strip shown in Fig. 4; Figs. 6 and 7 are vertical sectional views of the window sill and sash with the weather strip applied thereto; Fig. 8 is a vertical sectional view through the meeting rails of the sashes.

In the drawings 1 represents the window-frame having the inside molding 2, the outside molding 3 and the parting-bead 4. The lower sash 5 and the upper sash 6 are adapted to slide vertically between the said moldings 2 and 3 and the parting-bead 4.

The weather strip consists of a strip of metal folded upon itself to form a tongue 8; the sides 9 and 10 of the strip are bent at right-angles to the said tongue to form a flat surface to hold the tongue in an upright position; and the edges 11 and 12 are bent at right-angles to the flat surfaces 9 and 10. The said edges 11 and 12 are secured in grooves formed in the part to which the weather strip is to be attached, so as to assist in holding the weather strip in place when the same is nailed to the window-frame or to the sash. The edges 11 and 12 may be folded upon themselves to stiffen the same, as shown in Fig. 1. The metal strip may be secured by nails or other means direct to the sash, with the grooves formed in the sash to receive the edges 11 and 12, as shown in Fig. 1 or the metal strip may be secured to a base piece as shown in Fig. 3. When the metal strip is applied to the sash 5 as shown in Fig. 1, the edge of 12 of said strip may be secured in the channel formed for the sash cord 15.

A separate channel strip 16, preferably made of hard wood, is used in which to form the channel 17 to receive the tongue 8 of the metal strip. The strip 16 is preferably made in two pieces to form a relief strip 18, so that the size of the channel 17 may be varied to allow the tongue 8 to run freely therein. The channel strip 16 is triangular in cross-section and is secured in the frame of the window so as to present a beveled surface to take the side thrust of the sash. The corner of the sash is also beveled to correspond with the face of the channel strip 16 so that the tongue 8 will bear against the relief strip and take the side thrust of the sash. As the contacting surfaces are set upon an oblique angle to the lateral movement of the sash, the sash will not rattle or jar when the same is being raised or lowered.

As shown in Fig. 2 the metal strip may be secured to a base strip 20 which in turn is secured to the window-frame. The sashes in this case have the channels 17 formed therein to receive the tongue 8. A relief strip 21 is provided to allow the width of the channel 17 to be readily varied.

Fig. 3 shows the metal strip secured to a base strip 22, which is adapted to be secured to the edge of the sash. By using a base strip of this kind the metal strip may be more easily adjusted so that the tongue will run free in the channel 17.

Figs. 4 and 5 illustrate a different form of metal strip, in which V shaped ribs 23 are formed on both sides of the tongue 8. These ribs 23 fill up the space between the sash and the frame and make a tighter joint between the same. The V shaped ribs 23 are desirable when the weather strip is set straight as

shown in Fig. 4 instead of on an angle as shown in Figs. 1, 2 and 3.

The weather strip may be applied to the top or bottom of the sash as shown in Fig. 6, with the tongue 8 entering a channel 25 formed in a strip 26 upon the window-frame. Said strip 26 is made in two pieces to form a relief strip. In Fig. 6 the edges of the metal strip are secured in grooves formed in the sash, while in Fig. 7 the edges of the metal strip are shown secured in a base strip 27 which in turn is secured in a recess 28 formed in the sash.

Fig. 8 shows a weather strip adapted to be applied to the meeting rails 30 and 31 of the sashes and consists of the base strips 32 and 33 set in grooves formed in the meeting rails. Each of said base strips has a flat metal angle-plate 34 secured thereto. The angle-plates 34 overlap each other when the meeting rails are brought together, thus completely closing the joint between said meeting rails.

By the use of my improved weather strip a window may be made wind and storm proof; the tongue may be of sufficient width to enter the channel the entire height of the window when the sash does not properly fit the frame, or the metal strip, or the channel strip may be adjusted so as to correct any irregularities in the sash or frame due to the fact that they are not parallel.

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

1. In a weather strip, the combination of a window frame, a sash, a strip having a tongue formed thereon, a triangular strip, said triangular strip having a channel formed therein to receive said tongue and means for securing said parts to the said window frame and to the said sash so that said tongue will move in the said channel formed in said triangular strip as the said sash is raised or lowered.

2. In a weather strip, the combination of a window frame, a sash, a strip having a tongue formed thereon, a beveled surface upon the edge of said sash to which said tongue is secured, a triangular strip secured in said frame, and said triangular strip having a channel formed therein to receive said tongue.

3. In a weather strip, the combination of a window-frame, a sash, a strip having a tongue formed thereon, a beveled surface upon the edge of said sash to which said tongue is secured, a triangular strip secured in said frame, said triangular strip having a channel formed therein and a relief strip forming part of said triangular strip.

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

ALBANUS S. AIMAN.

Witnesses:
JOSEPH T. TAYLOR,
M. R. CLEELAND.