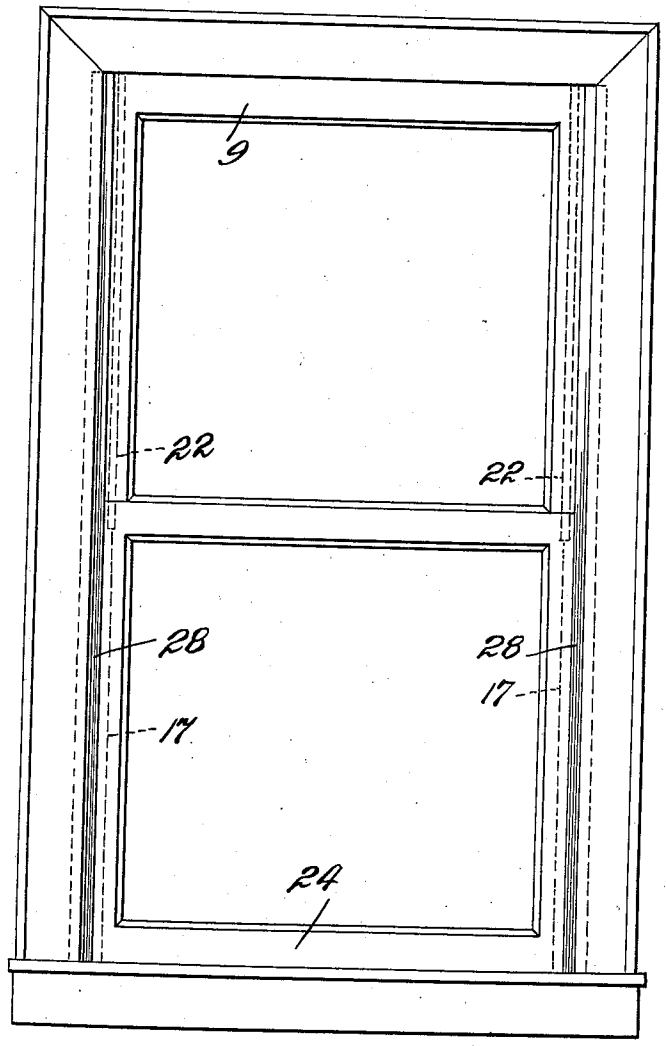
April 6, 1943. A. G. NORDEN 2,315,979

WEATHER STRIP

Original Filed May 26, 1942 2 Sheets-Sheet 1

Fig. 1.



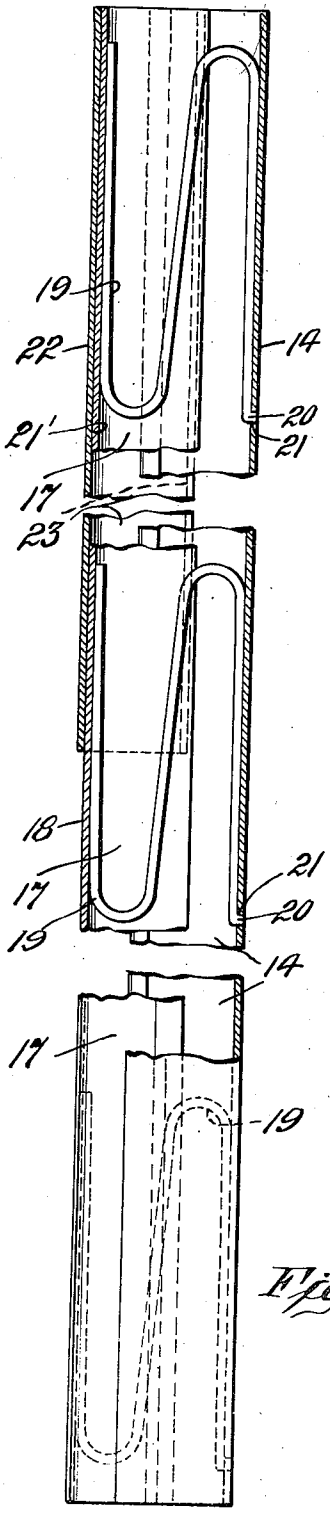


Fig. 2.

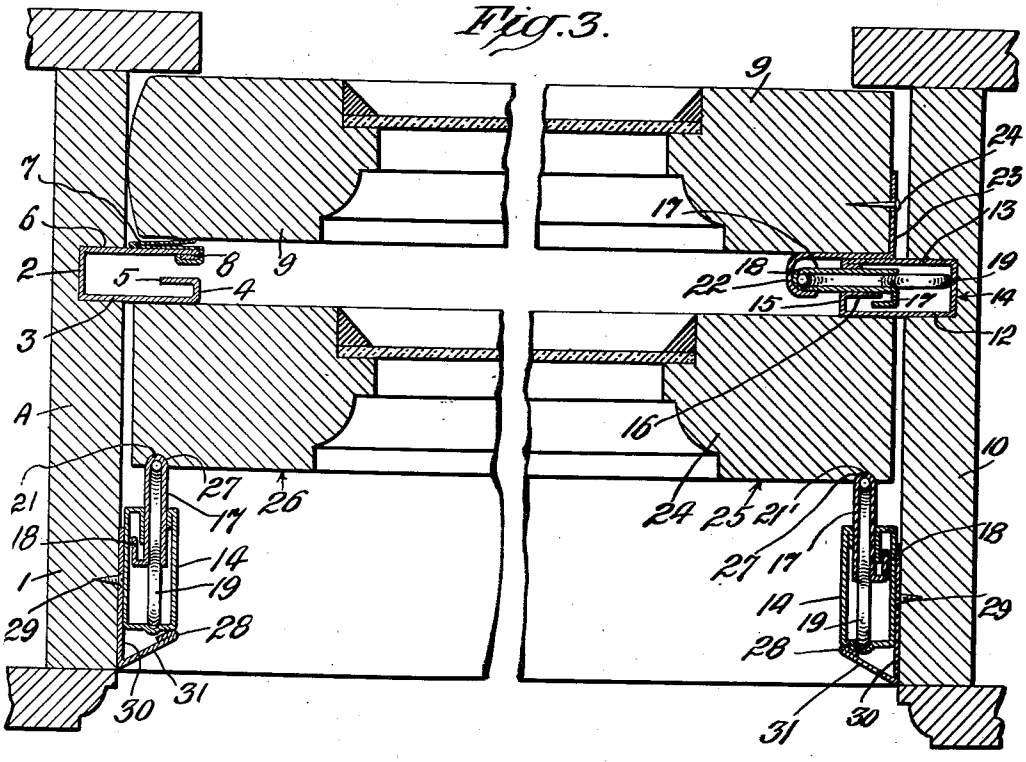
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Fig. 3.



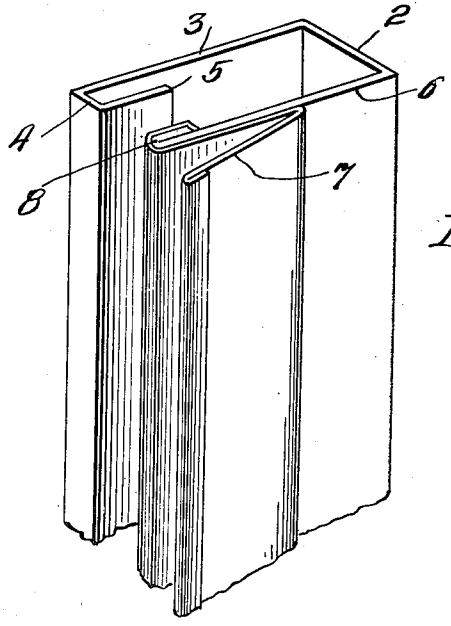


Fig. 4.

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WEATHER STRIP

Axel G. Norden, Valley Stream, N. Y., assignor to Eben Knowlton, New York County, N. Y.

Original application May 26, 1942, Serial No. 444,513. Divided and this application September 23, 1942, Serial No. 459,358

3 Claims. (Cl. 20—68)

My invention relates to windows and more particularly to windows in which the sashes slide vertically, such as are described in my co-pending application Serial No. 444,513 filed May 26, 1942 of which this is a division. In which are the upper and lower sash separated by parting strips which are usually made of wood. These strips shrink causing the sashes to rattle in the wind, also they admit cold in the winter as well as permit the heat to escape.

Another objection is that in damp weather the strips swell making it difficult to open the sash.

A further objection is that the sashes are usually equipped with sash weights, pulleys and cords. In use the cords become frayed and often break which necessitates the employment of a carpenter, who must dismantle the frame in order to get at the sash weight to replace the broken cord. This involves considerable expense.

My invention has for its principal object to overcome the first objections by substituting for the wooden parting strip, one made of plastic or metal, and providing for a resilient weather strip which will effectually prevent the ingress of cold or the egress of the heat.

A further object of my invention is to provide a resilient weather strip for the sashes, the frictional engagement of which will serve to hold the sash in the desired position, this will obviate the need for the sash weights, pulleys, and cords.

My means of accomplishing this result may be more readily apprehended by having reference to the accompanying drawings which are hereunto annexed and made a part of this specification in which:

Fig. 1 is a front elevation of a window equipped with my invention;

Fig. 2 is an enlarged detail view, partly in section;

Fig. 3 is an enlarged cross-section, and

Fig. 4 is a fragmentary detail view of my improved parting strip.

Similar reference numerals refer to similar parts throughout the entire specification.

As shown in Fig. 3 of the drawings instead of the conventional wooden parting strip, I provide at the one side A, of the window frame a parting strip preferably formed of metal or plastic having some degree of resiliency such as brass or zinc, this strip extends the entire height of the window frame. This parting strip 2 is preferably formed of a single piece which may be formed or rolled or extruded into the desired shape which as is clearly shown in Fig. 3, is rectangular in cross-section but open at one edge. One side 3 of the parting strip 2 is flat, the edge 4 of which is bent at right angles and then bent inwardly as at 5. The other side 6 of the parting strip 2, has a flexible tongue 7 fitted over the edge 8 of the side 6, and slidable thereon for assembly purposes. This flexible tongue 7, extends longitudinally the entire length of the parting strip 2, its free end bears against the side rail 9 of the sash and thus affords a very satisfactory weather strip.

At the other side 10, of the window frame, I mount a different type of parting strip because the flexible tongue 7 does not exert sufficient friction to hold the sash in place when raised or lowered. This consists of a strip 11 of metal or plastic formed or rolled into the shape shown in the drawings which is rectangular in cross-section. Both sides 12 and 13 of which are flat so as to fit nicely into one of the parting strip grooves 14. These grooves are milled in the side casing to receive the usual wooden parting strip.

The edge 15 of the side 12 is inturned and then bent inwardly forming a stop 16. This stop engages a spring actuated member 17 which is U shaped in cross-section. One leg 18 of the member 17 is bent or folded upon itself and the stop 16 is fitted into the fold.

The member 17 is held normally projected outwardly by a plurality of springs 19, as illustrated they are formed from spring wire bent into a Z shape. The end 20 of the bottom of the Z is bent to extend into a hole 21 formed in the metal strip 14. This serves to hold the springs 19 in the desired position. I have shown four springs for each strip but obviously, any desired number, more or less, may be utilized.

The top 22 of the U shaped member 17 as shown in Fig. 3, is arranged to bear against a strip 23 preferably of metal which is fitted to the sash 9 being held in place by nails 24 or in any other suitable manner. This strip preferably extends the full length of the sash. I have found in practice that the friction produced by the top 18 of the U shaped member 17 bearing against the strip 22 will hold the sash 9 in any position to which it may be raised without the necessity of any sash weights, cords, or pulleys.

I have also found in practice that although this result is obtained yet the friction is not so great as to render it difficult to raise the window sash. The other sash 24 is equipped with two of my improved devices one being mounted on each of the sides 1 and 10 of the window frame.

In this arrangement the rectangular strips 14 are placed so that the top 18 of the spring pressed member 17, bears against the sides 25

and 26 of the sash 24, the strips 22 being omitted. In some cases it may be found desirable although not essential to form a slight groove 27, in the sash in which the top 21' will slide.

When thus constructed each strip 14 is held in place by a strip preferably of metal 28 secured to the frame by nails 29, or in any other desired manner. This strip comprises a base portion 30, which abuts the window frame and an angular portion 31 which slants inwardly so as to hold the device 11 securely in place.

I have found in practice that this arrangement when placed on an old window, will not only remove all rattles, but will form a most satisfactory weather strip and control the positioning of the sashes thus obviating the necessity for pulleys, cords, and sash weights.

Having described my invention, what I claim and desire to secure by Letters Patent of the United States is:

1. In a window having a frame with two vertically sliding sash members, and a groove in each side of the frame intermediate the sash members adapted to receive a parting strip, a hollow parting strip fitted to each of said grooves, an angular strip which extends longitudinally of one of said sash members secured to one side thereof, a U-shaped member mounted in one of said hollow parting strips, the legs of which extend into the rectangular parting strip, spring means which hold the closed portion of the U against the angular strip secured to the sash, means to prevent the U-shaped member moving outwardly beyond a predetermined point, similar members mounted on opposite vertical sides of the frame so that the U-shaped portion engages the face of the other sash member and urges said other sash member towards the parting strips.

2. In a window having a frame with two vertically sliding sash members, and a groove in each side of the frame intermediate the sash members adapted to receive a parting strip, a hollow parting strip fitted to each of said grooves, an angular strip which extends longitudinally of one of said sash members secured to one side thereof, the outer edge of the opposite side of said sash being outwardly convex to form a line contact with the frame, a U-shaped member mounted in one of said hollow parting strips, the legs of which extend into the rectangular parting strip, spring means which hold the closed portion of the U against the angular strip secured to the sash, means to prevent the U-shaped member moving outwardly beyond a predetermined point, similar members mounted on opposite vertical sides of the frame so that the U-shaped portion engages the face of the other sash member and urges said other sash member towards the parting strips.

3. In a window having a frame with vertically sliding sash members, and a groove in each side of the frame intermediate the sash members adapted to receive a parting strip, a parting strip fitted to each of said grooves, longitudinal strips secured to opposite vertical sides of the frame, each comprising a base portion which abuts the side of the frame, the outer edge of the base portion terminating in a resilient angular inwardly inclined portion, a hollow member rectangular in cross section urged towards said base portion by each of said inclined portions, U-shaped members, the legs of which extend into each hollow member, means to prevent the U-shaped members moving outwardly beyond a predetermined point, spring-pressed means to hold the closed portions of the U's against one of said sash members and urge the said sash member toward the parting strips.

AXEL G. NORDEN.