May 22, 1934. G. L. KEMP ET AL 1,960,157

WEATHER STRIPPING FOR WINDOWS

Filed Sept. 5, 1933

Fig. No. 1

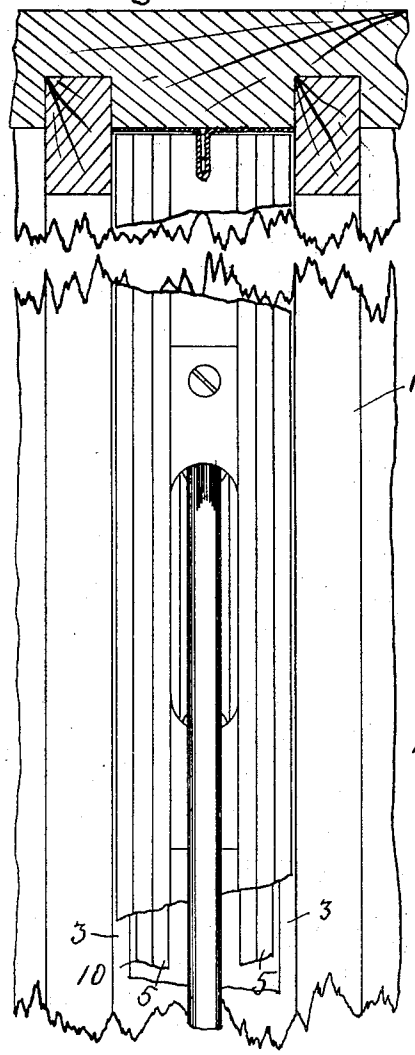


Fig. No. 2

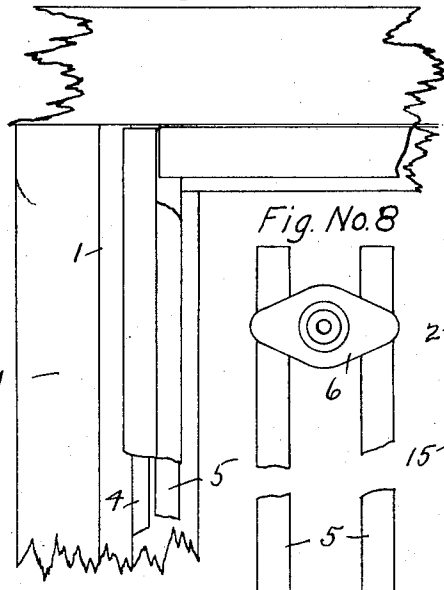


Fig. No. 3

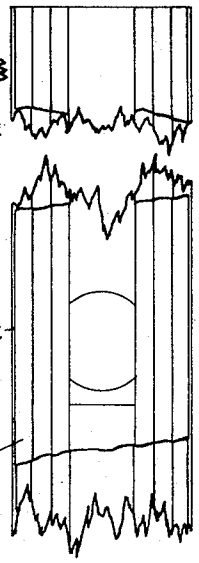


Fig. No. 8

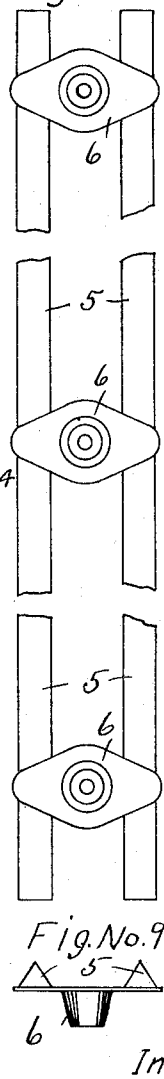


Fig. No. 4

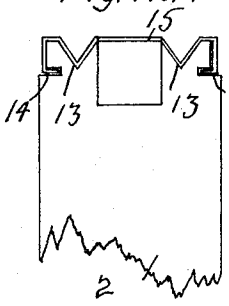


Fig. No. 5

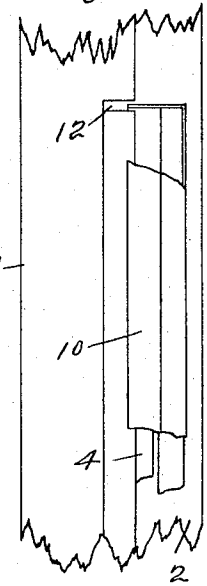


Fig. No. 6

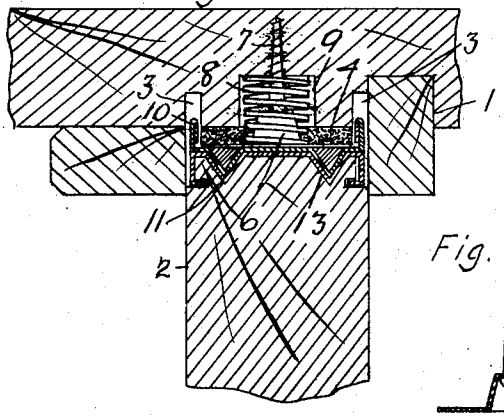
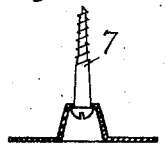


Fig. No. 9

Fig. No. 7



Inventors
George L. Kemp
Franklin L. Fritts
by Chapin & Ferguson
Attys

Patented May 22, 1934

1,960,157

UNITED STATES PATENT OFFICE

1,960,157

WEATHER STRIPPING FOR WINDOWS

George L. Kemp and Franklin L. Fritts,
Baltimore, Md.

Application September 5, 1933, Serial No. 688,166

1 Claim. (Cl. 20—12)

This invention relates to improvements in weather stripping for windows, and has for its object to provide a stripping that can be easily placed in position and which will always equalize between the sides of the window frame and sash so that the latter can always be raised or lowered without binding. A further object of the invention is to provide means to accommodate the contraction and expansion of the window sash due to weather or climatic conditions, whereby the sash will always be free to be raised or lowered without binding, and at the same time provide a weather tight joint between the sash and window frame.

The invention consists of the novel construction and arrangement of the parts and combination of parts hereinafter more fully set forth in the following specification and pointed out in detail in the appended claim.

In the accompanying drawing,—

Figure 1 is a view of the upper portion of the window frame, partly in section.

Figure 2 is a view of the upper portion of the window frame, partly broken away and showing the metal stripping at the top that fits into the upper surface of the upper window sash.

Figure 3 is a view of the upper end of the window sash, partly broken away, and showing the hole in which the end of the sash cord is secured.

Figure 4 is a top plan view of one end of the window sash and showing the slot for the sash cord.

Figure 5 is a side view of a portion of the window frame with the metal stripping partly broken away.

Figure 6 is a section through the window frame and sash, and showing the position of the metal stripping when the parts are together.

Figure 7 is a detail section of one of the spring cups.

Figure 8 is a detail elevation of the triangular rods, partly broken away, and showing the spring cups attached thereto.

Figure 9 is a plan view of Figure 8.

Referring to the accompanying drawing, forming part of this specification, and in which like reference numerals designate like parts throughout the several views thereof, 1 designates the window frame and 2 the window sash. The window frame is provided with slots 3 and a strip of felt 4 extending the full length of the inner surface of the window frame 1 between said slots 3 and is secured thereto in any suitable manner. Extending the full length of the window frame 1 on each side thereof are the triangular bars 5 to which are secured a number of spring cups 6. These bars 5 are held to the window frame 1 by the screws 7 which project through the cups 6 and extend into the window frame 1. Back of the cups 6 and surrounding each of the screws 7 is a coiled spring 8 which rest in the recesses 9 in the window frame 1, the tension of the coiled springs 8 being regulated by the screws 7. Extending the full length of the window frame 1 on each side thereof is a metal strip 10 provided with V-shaped recesses 11 into which the triangular bars 5 project. These strips 10 have their sides bent inwardly and back upon each other and project into the slots 3 in the window frame 1. The upper end of the strips 10 are bent at right angles and project into the recess 12 at the top of the window frame. These strips 10 are not fastened to anything but are held in position against the triangular bars 5 by the action of the springs 8 and the window sash. The window sash 2 is provided with V-shaped recesses 13 in its sides and recesses 14 in the front and back surfaces. Metal strips 15 are secured to the sides of the sash 2 and has V-shaped projections which extend into the V-shaped recesses 13 and have their edges bent back and extending into the recesses 14. The V-shaped projections of the strip 10 project into the V-shaped recesses 13. The metal strip 15 of the window sash is always against the metal strip 10 of the window frame and slides up and down against the same. The felt strip 4 prevents air or dust from passing between the sash and frame and allows the bars 5 and metal strip 10 to move inwardly slightly against the action of the springs 8 which prevents binding of the sash as well as allowing for contraction and expansion of the frame or sash due to weather or climatic conditions.

Having thus described our invention, what we claim is:

The combination with a window frame and sashes, of a number of upright V-shaped bars extending the full length of the inner surface of the window frame on opposite sides, a number of recesses in the inner surface of the window frame, a number of spring cups secured to said bars and each projecting into one of the said recesses in the window frame, a screw projecting through each of said cups and extending into the window frame for holding the said cups in position, a spring in each of said recesses back of said cups, a piece of pliable material between said bars and the window frame, a metal strip having V-shaped recesses therein and extending the full length of the window frame on the inside thereof and into which the V-shaped bars project, and a metal strip secured to the sides of said window sashes and having V-shaped recesses and adapted to slide against the first named metal strip.

GEORGE L. KEMP.
FRANKLIN L. FRITTS.