

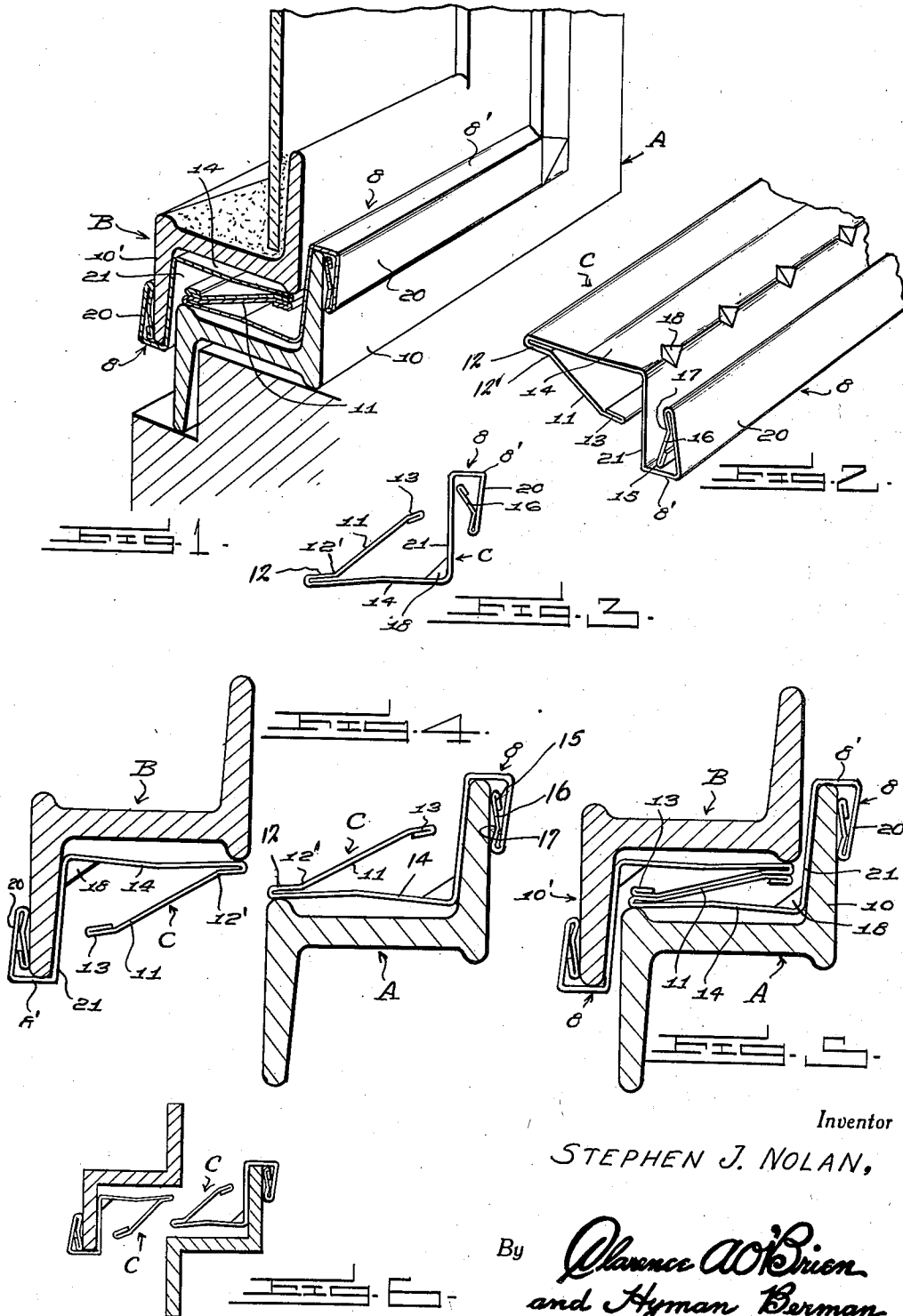
March 11, 1941.

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2,234,533

WEATHER STRIP FOR METAL WINDOWS

Filed April 24, 1939



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UNITED STATES PATENT OFFICE

2,234,533

WEATHER STRIP FOR METAL WINDOWS

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Application April 24, 1939, Serial No. 269,557

3 Claims. (Cl. 189-65)

This invention relates to new and useful improvements in weather strips for metal windows and the like.

It is one of the objects of the present invention to provide a weather strip which will at all times form a weathertight joint between a window and its frame or between any two parts in connection with which the weather strip is employed.

It is a further object of the invention so to construct a device of this character that the weather strip contacts with the parts with which it engages under pressure, thus insuring a tight joint between the weather strip and that member which it engages.

It is a still further object of the invention so to construct a weather strip of the above mentioned character that it may be securely retained in position without the use of separate fastening means such as screws, bolts or the like.

It is a further object of the invention so to construct a weather strip of the aforementioned character that it may be attached to windows of various sizes within certain limits, without necessitating special fitting thereof.

With the above and other objects in view, reference will be had to the accompanying drawing in which;

Figure 1 is a fragmentary perspective view of a metal window of the casement type, showing a weather strip constructed in accordance with the present invention attached thereto.

Figure 2 is a fragmentary perspective view of the weather strip.

Figure 3 is an end view of the strip.

Figure 4 is a sectional view through part of the window frame and the sash frame with the strips thereon and with the sash frame spaced from the window frame.

Figure 5 is a similar view but showing the sash frame in closed position in the window frame.

Figure 6 is a view similar to Figure 4 but showing the invention in use on a slightly different form of window structure.

Referring more specifically to the drawing, the reference character A designates a metal window frame and B designates the window sash frame, the window in this particular embodiment of the invention and the frame being of the metal casement type. The frame A consists of an extended flange 10, and window B of an extended flange 10'. The weather strip C consists of a channel member 8 having a flat bottom wall 8' and two sides of different lengths 20 and 21. Formed integral with side flange 20 there is a resilient member 16 which extends inwardly of the channel

and has its inner edge beaded at 15, with an increased angle tension from point 17. Projecting from wall 21 of channel member 8 and formed integral therewith, is a rigid corrugated reinforced extension 14. This extension is made rigid by means of corrugations at 18. Projecting from this rigid extension 14 there is a resilient sealing tongue or member 11 beaded at 13, and said member 11 is connected with the member 14 by a return bend or hook-shaped part 12, the junction of the parts 11 and 12 forming a line 12' on which the metal may be bent to adjust the angular relation of the part 11 with the part 12 or the distance between the part 11 and the part 14. This adjustment can be made by running the point of an awl or the like along the line 12' with sufficient pressure to cause the part 11 to move outwardly away from the part 14 and this is done without closing the return bend 12. This adjustable feature is particularly useful where the weather strip is used on a warped sash as it enables certain parts of the member 11 to be adjusted farther from the part 14 than are other portions. When the device is employed as illustrated in the drawing, the channel member 8 is adapted to receive the flange of a window. The resilient member 16 is placed under pressure and the resiliency of this member serves to maintain the device in position upon the window and frame flange. In this form of invention the window when moved to its closed position, causes the engagement of the flexible members 11 and 11, placing same under pressure and thus insuring a weather-tight joint between the several parts.

The corrugations 18 impart rigidity to the part or flange 14 of the device.

Figure 6 shows the invention used on a different form of window structure than that shown in other figures but the device is similar and operates in the same manner as previously described.

Thus it will be seen that each weather strip includes an angle-shaped body part composed of the parts 21 and 14 with this body part fitting in the space formed by the angular frame member A or B, with the channel-shaped part 8 at one edge of the body part fitting over an edge of the frame part and the other edge of the body part having a return bend forming an open loop with a resilient part 11 forming a sealing member connected with the return bend or loop by a bendable line which enables the sealing member to be adjusted toward or away from the part 14 to enable these two sealing mem-

bers of the two weather strips to properly engage each other when the window is closed, as shown in Figure 5. The part 14 is slightly bent adjacent its middle, as shown, so as to avoid any screw heads which might be used for fastening a frame to an adjacent part.

When the invention has been herein illustrated in a preferred form, it is to be understood that the invention is not to be limited to the specific construction herein shown and it may be practiced in other forms without departing from the spirit thereof.

Having thus described the invention, what is claimed as new, and what is desired to secure by Letters Patent of the United States is:

1. In a window of the casement type including cooperating sash and frame angles having spaced parallel oppositely extending flanges offset from each other and right-angularly disposed connecting webs, a weather strip for each sash and frame angle including substantially right-angular body portions adapted to lie substantially parallel with the webs of each angle and to contact the inside surfaces of adjacent flanges, said last mentioned portions being bent over the ends of the flanges forming resilient locking clamps terminating in inturned locking tongues reinforced by double thickness of material at their opposite ends and forming spaced line contacts with the outer surfaces of the flanges, the opposite ends of the body portions being bent upon themselves to form angularly extending sealing tongues reinforced at their free ends, by double thicknesses, said sealing tongues contacting each other substantially throughout their adjacent surfaces.

2. In a window of the casement type including cooperating sash and frame angles having spaced parallel oppositely extending flanges offset from each other and right-angularly disposed connecting webs, a weather strip for each sash and frame angle including substantially right-angular body portions adapted to lie substantially

parallel with the webs of each angle and to contact the inside surfaces of adjacent flanges, said last mentioned portions being bent over the ends of the flanges forming resilient locking clamps terminating in inturned locking tongues reinforced by double thickness of material at their opposite ends and forming spaced line contacts with the outer surfaces of the flanges, the opposite ends of the body portions being bent upon themselves to form angularly extending sealing tongues and short portions which connect the tongues to said opposite ends of the body portions and the short portions being substantially parallel to and spaced from the adjacent end portion of said opposite ends of the body portions, the junction of the tongues with said short portions forming a bendable line, said sealing tongues contacting each other substantially throughout their adjacent surfaces.

3. In a window of the casement type including cooperating sash and frame angles having spaced parallel oppositely extending flanges offset from each other and right-angularly disposed connecting webs, a weather strip for each sash and frame angle including substantially right-angular body portions adapted to lie substantially parallel with the webs of each angle and to contact the inside surfaces of adjacent flanges, said last mentioned portions being bent over the ends of the flanges forming resilient locking clamps, the opposite ends of the body portions being bent upon themselves to form angularly extending sealing tongues and short portions connecting the tongues to said opposite ends of the body portions, each short portion being spaced from and extending parallel to the adjacent part of said opposite end of the body portion and each short portion being connected with the tongue by a bendable line and said sealing tongues contacting each other substantially throughout their adjacent surfaces with the free end of one tongue contacting a short portion of the other tongue.

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