

No. 770,444.

PATENTED SEPT. 20, 1904.

C. M. RHODES.
WEATHER STRIP.

APPLICATION FILED JAN. 6, 1904.

NO MODEL.

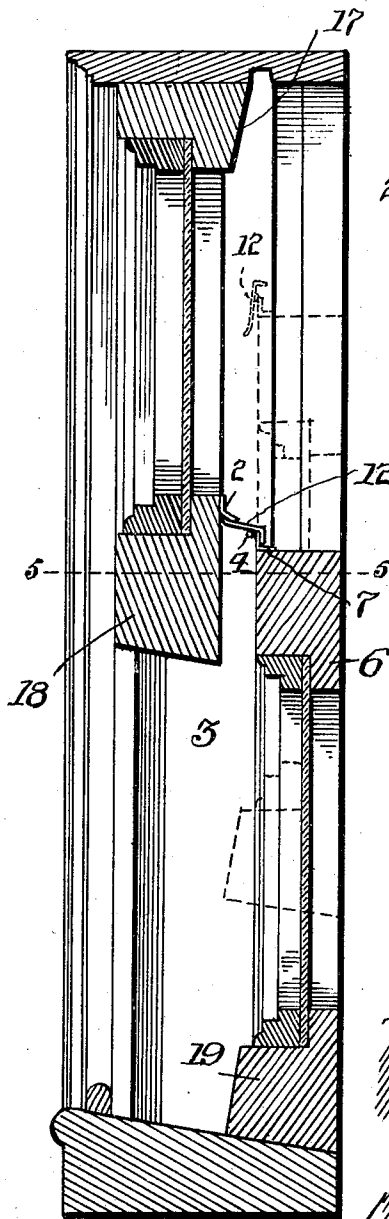


Fig. 1.

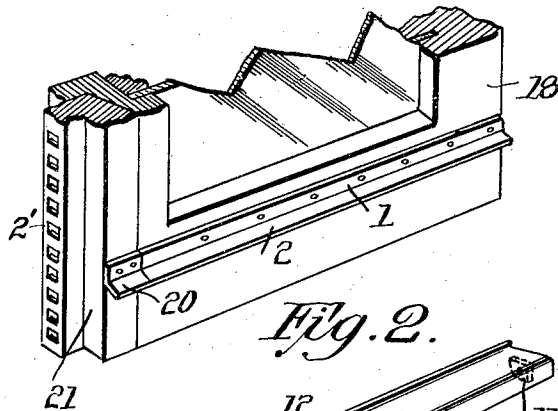


Fig. 2.

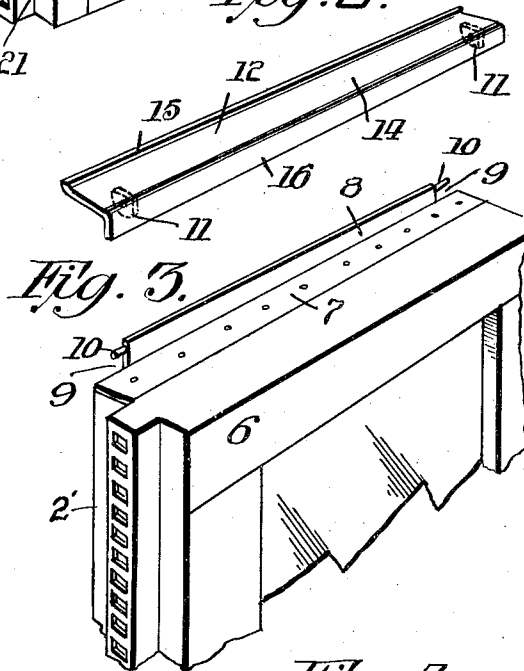


Fig. 3.

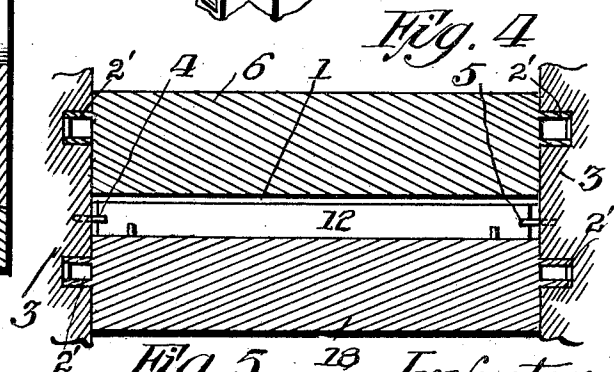


Fig. 4.

Witnesses:
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Fig. 5
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UNITED STATES PATENT OFFICE.

CHARLES M. RHODES, OF STEUBENVILLE, OHIO, ASSIGNOR TO THE RHODES MANUFACTURING COMPANY, OF STEUBENVILLE, OHIO, A CORPORATION OF OHIO.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 770,444, dated September 20, 1904.

Application filed January 6, 1904. Serial No. 187,928. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. RHODES, a citizen of the United States of America, residing at Steubenville, in the county of Jefferson and State of Ohio, have invented certain new and useful Improvements in Weather-Strips, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in weather-strips, and more particularly to that class which are employed upon window-frames to exclude moisture, air, and dirt from the interior of the building.

Another object of my invention is to provide a weather-strip which may be easily attached to the frame of a window and its sashes, the strip to be operated to close or open when the sashes are raised or lowered.

Briefly described, my improved weather-strip comprises three sections. The first section, which will be hereinafter termed a "shed," is secured to one of the sashes. The second section or shutter is pivotally mounted on the third section, which is secured to the other sash upon its upper edge.

The invention further consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this application, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a vertical sectional view of the frame of a window, showing my improved weather-strip in a closed position. Fig. 2 is a fragmentary perspective view of the upper sash. Fig. 3 is a detail perspective view of a shutter. Fig. 4 is a fragmentary perspective view of the lower sash, and Fig. 5 is a cross-section on the line 5 5 of Fig. 1.

To put my invention into practice, I secure to the upper sash of the window-frame on its exposed side a shed which consists of a metallic strip 1, bent at an angle, as indicated at 2, said strip being secured, preferably, near

the base of the sash, whereby when the same is in the upper position within the frames it will lie practically in horizontal alinement with the upper edge of the lower sash. In opposite sides of the frame 3 I secure pins or lugs 4 5, the object of which will be hereinafter more fully described. Upon the upper edge of the lower sash 6 I secure an angle-plate 7, the vertical portion 8 of which is sheared away upon its outer ends, as indicated at 9, forming pins 10, upon which I journal, by means of the lugs 11, the shutter 12, which is an angle-plate having the horizontal portion 14, the outer edge of which is slightly flared, as indicated at 15, and formed at right angles to the horizontal portions 14 are the vertical portions 16.

When the lower sash is in its raised position from that shown in Fig. 1 of the drawings, the normal position of the shutter 12 will be that as illustrated in dotted lines in Fig. 1, wherein the horizontal portion 14 and the flared edge 15 assumes the vertical position, and when this sash is lowered the flared edge 15 of the shutter is adapted to engage the pins 4 and 5, carried by the frame, and force the horizontal portion outwardly and into engagement with the angle plate or strip 7, which is secured to the lower part of the upper sash, as will be plainly seen in Fig. 1 of the drawings. As these pins engage the shutter the vertical portion 16 thereof will be forced downwardly into engagement with the vertical portion 8 of the angle plate or strip 7, whereby any dirt will be prevented from entering between the sashes, and when the sashes are in the opposite position from that illustrated in Fig. 1 the enlarged portion 17 of the sash 18 and the enlarged portion 19 of the sash 6 will prevent any moisture, air, or dirt from entering.

As illustrated in the accompanying drawings, my improved weather-strip is applied to the sashes of a window wherein when one sash is lowered the other will be raised, and in either position a tight joint will be formed between the sashes to exclude all dampness or rain from the interior, this form of strip being particularly adapted to office windows wherein the glass in one of the sashes is gen-

erally colored or frosted, this sash being used in the lower position during the day and of an evening raised to the upper position to allow more light to enter the building or room.

5 In Fig. 2 of the drawings I have illustrated one of the strips as applicable to a particular form of sash, such as is shown and described in my application filed January 18, 1904, Serial No. 189,509, and when the strip is made for
10 this style of sash I preferably form the same with an extra section, as indicated at 20, whereby when the sash portion 21 has been secured to the sash 18 the strip portion 20 will register with the rest of the strip carried by the
15 sash 18. This style of sash shown is adapted to be employed with a sash-operating mechanism, such as shown and described in my application filed February 26, 1903, Serial No. 145,268, in which toothed wheels are employed
20 to take into the racks. In the sash shown in the present application such toothed wheel will take into the racks 2', carried by the vertical rails of the sash.

While I have herein shown and described
25 my improved weather-strip as secured to the sashes of the window, it will be noted that the same may be readily employed upon doors and other places where it is desired to exclude all moisture, air, and dirt, and while I have
30 illustrated the preferred form of construction it is obvious that various slight changes may be made in the general arrangement of the strips whereby the best results are accomplished.

35 Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A weather-strip comprising an angle-strip, an angle-plate, said plate having a shutter pivotally secured thereto, and means for
40 engaging said shutter with the angle-strip and the angle-plate, substantially as described.

2. A weather-strip comprising an angle-strip, an angle-plate, an angled shutter pivotally mounted on the angle-plate, means for
45 engaging the said shutter with the angle-strip and angle-plate, substantially as described.

3. A weather-strip comprising an angled strip, an angled plate having its one side
50 sheared away to form pins, an angled shutter mounted upon said pins, means to engage said

shutter with the angle-strip and angle-plate, substantially as described.

4. A weather-strip comprising an angled strip, an angled plate having pins formed at its ends, an angled shutter pivotally mounted upon said pins, and pins adapted to engage said shutter and force the same into engagement with the angled strip and angled plate,
55 substantially as described. 60

5. A weather-strip comprising an angled strip, an angled plate having its one side sheared away to form pins, an angled shutter having bosses formed in its angle to engage said pins, pins adapted to engage said shutter
65 and force the same into engagement with the angled strip and angled plate, substantially as described.

6. A weather-strip comprising an angled strip, an angled plate having its end sheared
70 away to form pins, an angled shutter having its one edge flared, bosses formed in the angle of said shutter and adapted to engage the pins of the angle-plate, pins adapted to engage said shutter and force the same into engagement
75 with the angled strip and the angled plate, substantially as described.

7. In combination with the sashes of a window, a weather-strip comprising an angled strip secured to one sash, an angled plate secured to the other sash, an angled shutter pivotally mounted upon the angle-plate, means carried by the frame of the window to force the shutter in engagement with the angle-strip of one sash and the angle-plate of the other
85 sash, substantially as described.

8. In combination with the sashes of a window-frame, a weather-strip comprising an angled strip secured to one sash, and an angled plate carried by the other sash, an angled shutter pivotally mounted upon the angled plate, pins carried by the window-frame to engage said shutter and force the same into engagement with the angle-strip and angled plate,
90 substantially as described. 95

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

CHARLES M. RHODES.

Witnesses:

JOHN A. HUSTON,
E. L. HAMMOND.