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STORM SASH VENTILATOR

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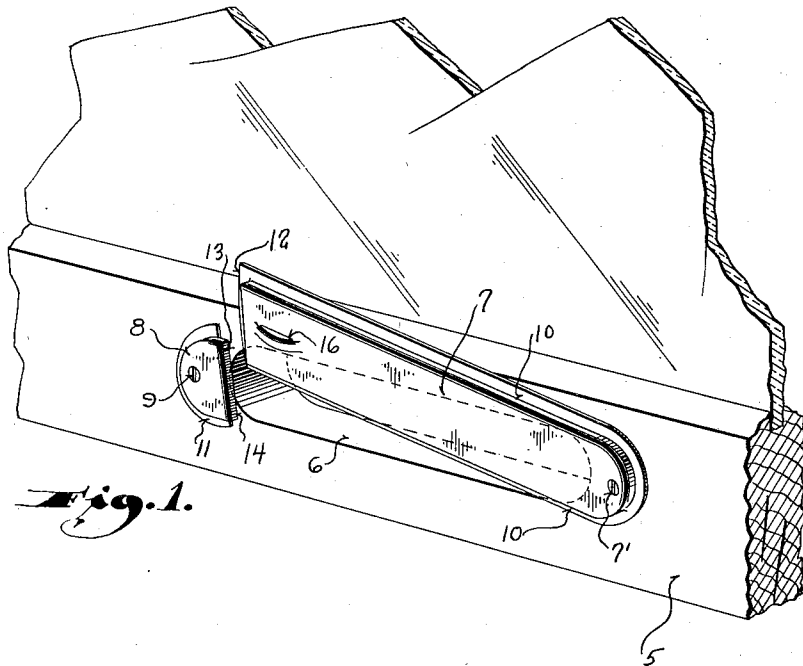


Fig. 1.

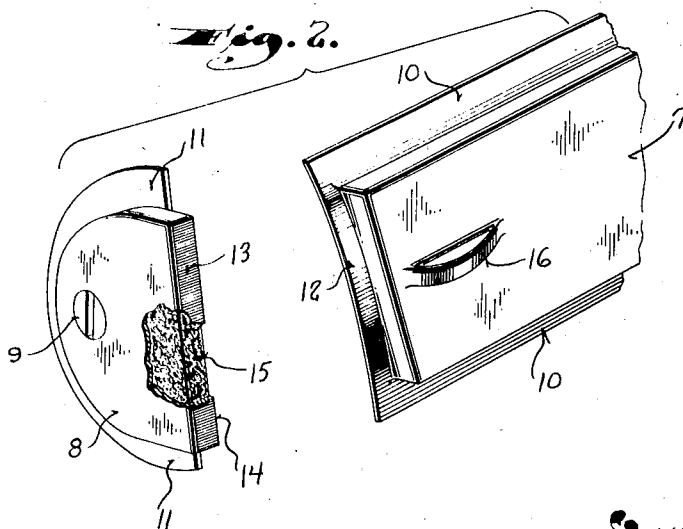


Fig. 2.

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STORM SASH VENTILATOR

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5 Claims. (Cl. 98—97)

This invention relates to improvements in ventilator for storm sash.

Heretofore, it has been customary to provide an opening or a series of openings through a storm sash and to close the same by means of a wooden slat pivoted to the sash and arranged to swing down into a closed position disposed over the opening or openings. This construction has been found objectionable in that it is difficult to provide a tight fit when the slat is closed so as to prevent rattling and drafts, and with this objection in mind, it is an object of the present invention to provide an improved ventilator of this character which is so constructed that regardless of how long it is used, a tight fit will be secured at all times so as to positively preclude rattling and prevent objectionable drafts.

More specifically it is an object of this invention to provide an improved ventilator device of the character described which is formed entirely of metal and is so constructed as to close with a spring detent action so as to insure a tight close fit.

With the above and other objects in view which will appear as the description proceeds, this invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the claims.

The accompanying drawing illustrates one complete example of the physical embodiment of the invention constructed according to the best mode so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a perspective view of a storm sash illustrating the application of this invention thereto; and

Figure 2 is a perspective view of the two parts of the unit to show details of construction, and particularly the manner in which secure closure is effected.

Referring now particularly to the accompanying drawing in which like numerals indicate like parts, the numeral 5 designates a conventional storm sash, only the lower portion of which is shown. The bottom rail of the sash has an oblong opening 6 or a series of bored holes to provide for the admission of outside air.

The opening 6 is adapted to be closed by a member 7 pivoted to the bottom rail as at 7' so as to swing from a closed position disposed over the opening 6 to an elevated open position. The

free end of the member 7 is arranged to engage a fixed stop 8 secured to the bottom rail by a screw 9.

Both the pivoted closure member 7 and the stop 8 are stamped and formed from sheet metal. The closure member 7 has its free end inclined with respect to its top and bottom edges so that the bottom edge thereof is shorter than the top edge, and the adjacent portion of the stop which it engages is similarly inclined so that as the closure member is lowered to its closed position, its downward movement is arrested by the meeting inclined faces of the closure member and the stop.

Although both parts are stamped from sheet metal, they are rigid. Rigidity is provided in the closure member 7 by forming a stepped flange 10 about the entire marginal edges thereof. The stepped flange 10 gives the closure member a shallow U-shape in cross section with outwardly extending marginal flanges arranged to lie flat against the storm sash at all times.

The stop member 8 has a similar marginal flange 11, but to accommodate the end flange 12 of the closure member, the marginal flange 11 is terminated short of the inclined face 13 of the stop member. The inclined face 13 is at right angles to the plane of the stop member 8 and its edge 14 is straight and spaced from the surface of the sash a distance slightly greater than the thickness of the metal of which the closure member is formed.

To insure the closure member being held tightly closed, its flange 12 is bent or curved so that its medial portion is bowed outwardly from the surface of the sash a distance greater than the space between the edge 14 and the surface of the sash so that as the closure member is moved into operative engagement with the stop member, this bowed flange 12 is placed under tension sufficient to hold the parts against rattling. In this manner the closure member is also firmly pressed against the sash to tightly close the opening 6 and prevent objectionable drafts.

To further insure against the possibility of drafts, particularly around the end of the opening 6 adjacent the stop 8, a felt pad 15 is placed within the hollow of the stop member 8 in a position to be engaged by the edge of the flange 12.

To facilitate opening and closing the member 7, a handle portion 16 is pressed outwardly from its free end portion.

From the foregoing description taken in connection with the accompanying drawing, it will be readily apparent to those skilled in the art, 55

that this invention provides a substantial improvement in storm sash ventilators in that it positively prevents rattling and drafts and insures a permanently smooth operating structure.

5 What we claim as our invention is:

1. A closure for ventilator openings formed in one rail of a storm sash, comprising a member formed entirely of sheet metal and of a size to close the ventilating opening, means pivotally
10 mounting said member on said rail of the storm sash for edgewise movement in a plane parallel to the surface of the rail to and from a position closing the opening, a stop member secured to said rail of the sash to coact with the free end
15 of said pivoted member to hold the same in closed position, and the free end of said pivoted member and said stop having engaging portions lying substantially on planes parallel to the surface of the rail, one of said engaging portions
20 being adapted to be sprung against spring tension upon engagement of said portions whereby the closure member is firmly held in its closed position.

2. A closure for a ventilator opening in a storm sash rail, comprising a member hinged to the
25 rail to swing edgewise in a plane parallel to the face of the rail to and from a position closing the opening, a stop member on the rail engageable by the free end of the hinged member to define the closed position of said hinged member,
30 the stop member and the hinged member being formed of sheet metal and having fitting portions, said portion on the stop member being the inner edge of a rigid wall substantially normal to the face of the rail but spaced therefrom,
35 and said fitting portion of the hinged member being a yieldable metal flange positionable under said inner edge and adapted to be sprung as said fitting portions are engaged to resiliently
40 hold the closure member in its closed position.

3. Means for closing a ventilator opening in a storm sash rail, comprising a member formed entirely of sheet metal and hinged to the rail to swing to and from a position closing the ventilator opening, a stop member fixed to the rail
45 to be engageable by the free end of the hinged closure member to define the closed position thereof, said stop member also being formed of sheet metal, said stop member having a rigid

straight edge lying in the plane of the swinging movement of said closure member, and an outwardly bowed flange on the free end of the closure member adapted to engage under said rigid edge and to be slightly flattened upon movement
5 of the closure member to its closed position so as to hold the closure member rigidly and firmly in its closed position.

4. In combination with a storm sash having a ventilator opening in one rail thereof, a closure
10 member hinged to said rail to swing over the surface thereof to and from a closed position disposed over the ventilating opening, a stop member fixed to said surface of the rail and engageable by the free end of the closure member to define
15 the closed position thereof, both of said members being formed of sheet metal, the stop member having a rigid straight edged portion spaced from and parallel to the surface of the storm sash rail, and an outwardly bowed flange on the free
20 end of the closure member adapted to engage under said rigid edge of the stop member and be slightly deformed as the closure member is brought to its closed position whereby the closure member is firmly held against rattling when in
25 closed position.

5. In combination with a storm sash having a ventilator opening in one rail thereof, a closure member hinged to said rail to swing over the surface thereof to and from a closed position
30 disposed over the ventilating opening, a stop member fixed to said surface of the rail and engageable by the free end of the closure member to define the closed position thereof, both of said members being formed of sheet metal, the stop
35 member having a rigid straight edged portion spaced from and parallel to the surface of the storm sash rail, an outwardly bowed flange on the free end of the closure member adapted to engage under said rigid edge of the stop member and be slightly deformed as the closure member
40 is brought to its closed position whereby the closure member is firmly held against rattling when in closed position, and a felt pad mounted within the stop member and engageable by said bowed
45 flange on the free end of the closure member.

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