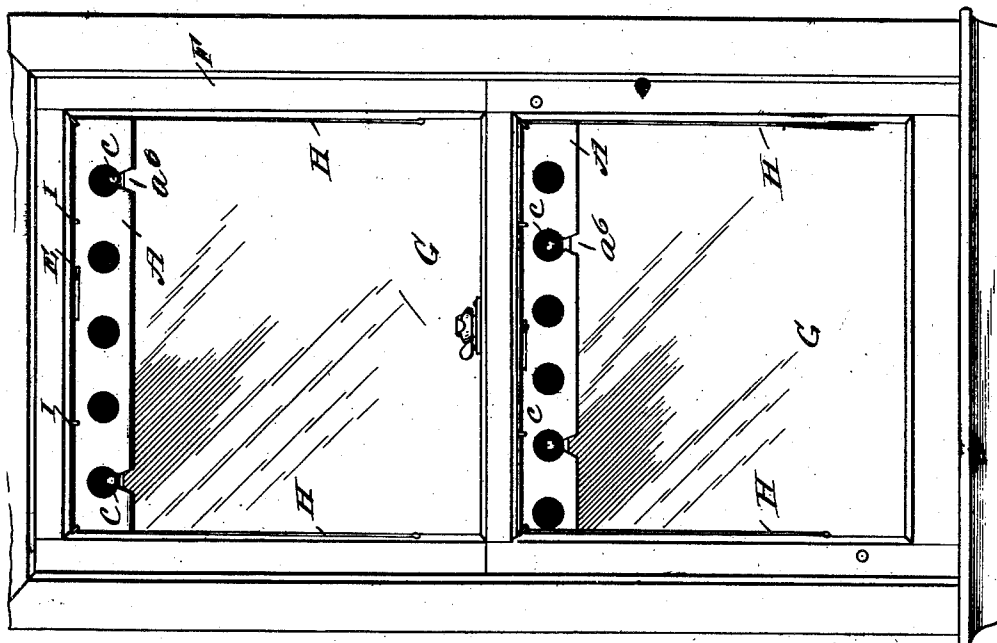
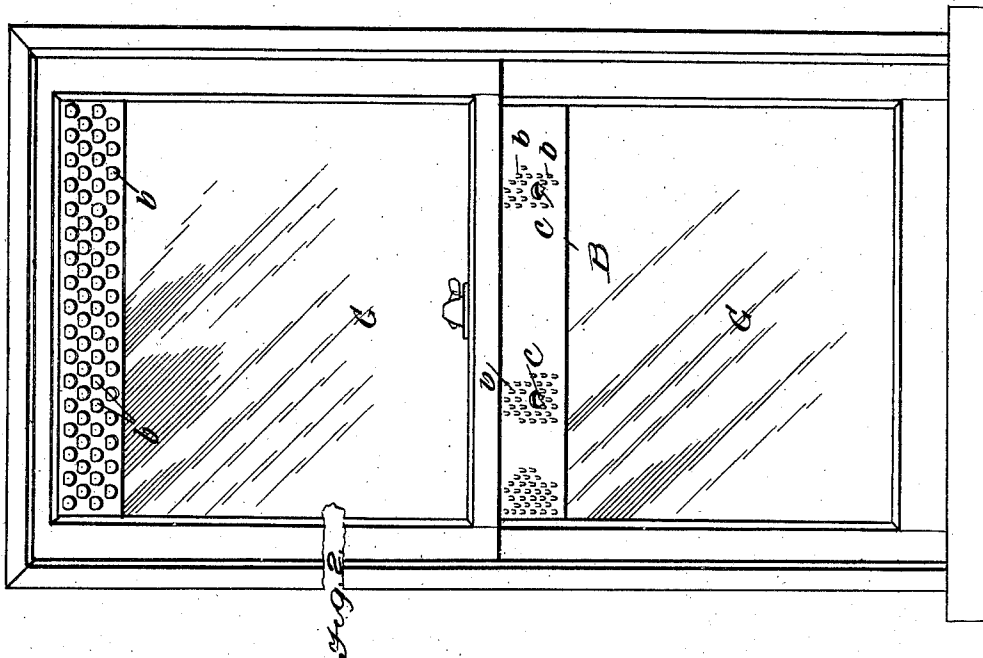


G. W. STEIN.
 WINDOW VENTILATOR AND FLY ESCAPE.
 APPLICATION FILED APR. 11, 1910.

998,421.

Patented July 18, 1911.

2 SHEETS—SHEET 1.



WITNESSES:

J. E. Barry
 L. F. Stanley

Fig. 1.

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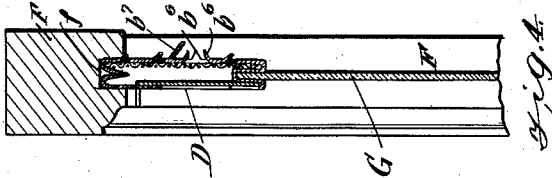


Fig. 4.

Fig. 7.

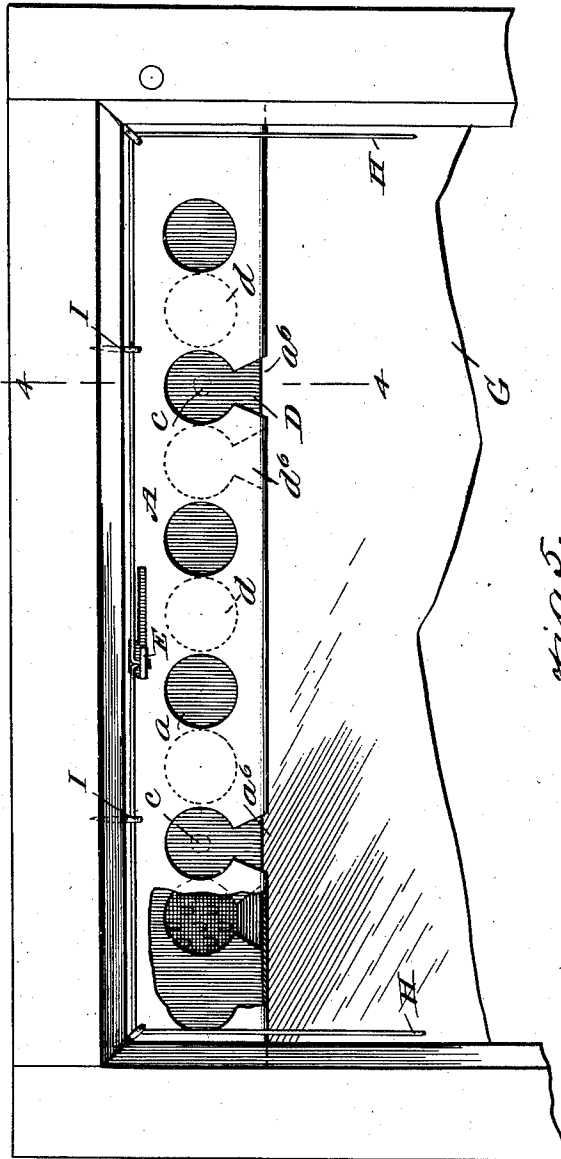


Fig. 3.

WITNESSES:

H. B. Perry
 L. A. Stanley

Fig. 5.

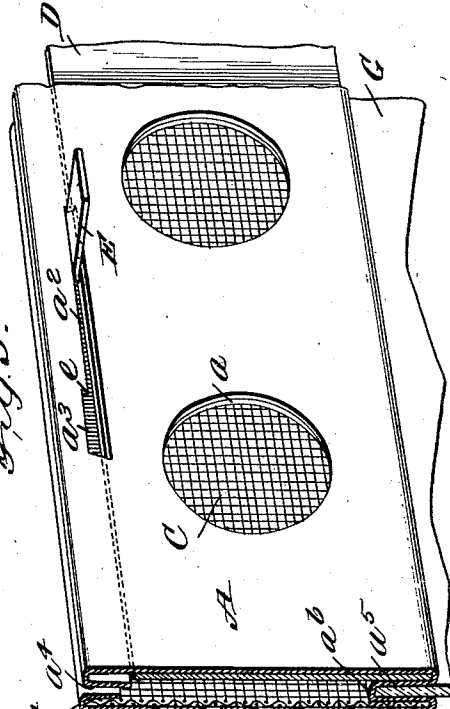
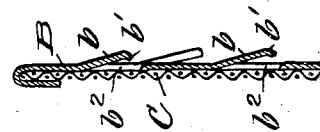


Fig. 6.



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WINDOW-VENTILATOR AND FLY-ESCAPE.

998,421.

Specification of Letters Patent. Patented July 18, 1911.

Application filed April 11, 1910. Serial No. 554,779.

To all whom it may concern:

Be it known that I, GEORGE W. STEIN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Window-Ventilators and Fly-Escapes, of which the following is a specification.

My invention relates to means for ventilating windows, and it consists in the constructions, combinations and arrangements herein described and claimed.

An object of my invention is to provide a window ventilator which may be brought into instant use at any time without the necessity of raising or lowering the window sash.

A further object of my invention is to provide a device which will permit a circulation of air therethrough, but at the same time prevent snow or rain from blowing in through the openings.

A further object of my invention is to provide a device which may be readily attached to any window, and which is simple in construction and relatively cheap to manufacture.

Other objects and advantages of my invention will appear in the following specification and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming part of this application in which similar reference characters indicate like parts in the several views, and in which:—

Figure 1 is a view from the inside, of a window, equipped with my invention. Fig. 2 is a view from the outside, of a window, equipped with my invention. Fig. 3 is a detail view showing the construction of one of the ventilators. Fig. 4 is a section along the line 4—4 of Fig. 3. Fig. 5 is a perspective view showing the casing and slide. Fig. 6 is a sectional view through the outside wall of the slide casing, and, Fig. 7 is a detail view in perspective showing a fly escape on the exterior of the outer wall of the slide casing.

In carrying out my invention, I provide the ventilators of the form best shown in Fig. 5. This consists of a slide casing formed preferably of one piece and bent as shown in the figure. It will be seen that the slide casing consists of an inner side A, hav-

ing circular openings a , and a longitudinal slot a^2 , provided with an enlarged portion a^3 at one end thereof. The upper edge of the side A is bent back upon itself, as shown at a^4 .

The opposite or outer wall B of the slide casing has stamped from it a series of inclined portions b , which are curved outwardly. The stamping out of these portions b provides openings b^2 , through which air can enter. The top of the wall B is bent inwardly as shown at b^4 , while the bottom is bent back upon itself, as shown at b^5 . The inner wall A has a small portion a^5 bent back upon it at the bottom, and these two portions b^5 and a^5 are joined together by an integral central portion $a b$.

Secured in the grooves between the top of the outer wall B and portion b^4 , and the bottom of the wall B and the portion b^5 is a screen C. The similar bent over portions at the top and bottom of the inner wall A constitute, with the inner wall, runways for a slide D. This slide has a series of openings d , which are arranged to register with the opening a in the inner wall A. Projecting through the slot a^2 in the wall A is a member E, which is integral with D, or which may be secured thereto.

At certain portions along the ventilator, I cut away the wall A, as shown at a^6 , for a purpose hereinafter described. The slide D has similar cut-away portions d^6 arranged to register with the cut-away portions a^6 .

In the screen C at the cut-away portions a^6 , I provide openings c , which are best shown in Fig. 1, and in the wall B, I stamp an opening with a series of outwardly extending points b^6 . Above these openings is a protecting extension b^7 , as shown in Fig. 7.

The ventilator thus described is set in a window sash by recessing the sash frame F, as shown at f in Fig. 4, placing the pane G between the parts b^5 and a^5 and inserting the pane and the attached ventilator in the sash frame. The operating cords H may be secured to the member E, these cords being passed through screw eyes I, which constitute guiding members.

The ventilator described thus far is designed for use in the lower sash on the window. For the upper sash, I prefer to use the form shown in Figs. 2 and 6.

The outer wall of the upper sash is provided with inclined portions b stamped therefrom, having end b^7 turned inwardly.

The upper ventilator is not provided with the openings *c* nor with the extension *b'*, otherwise the construction is the same as that for the lower sash.

- 5 From the foregoing description of the various parts of the device, the operation thereof may be readily understood. The apparatus may be set up as described, and if the ventilator is not to be used, the cord
- 10 H at the left of Fig. 1 may be pulled thereby drawing the member E into registration with the enlarged portion *a'* of the slot *a*². Now by pushing the member E upwardly, it will engage behind the inclined shoulder
- 15 *e*, and lock the ventilator. When the ventilator is to be used, the member E may be pushed downwardly and the string H of the opposite side may be pulled so as to uncover the opening *a* to any extent desired.
- 20 The provision of the screen C prevents flies or insects from entering, while permitting air to flow therethrough. As is well known, a fly or other insect will follow the contour of the window, and therefore an insect
- 25 walking along the upper part of the pane will enter the cut-away portion *a'*, pass through the opening *c* in the screen C, and find himself on the outside of the window. He will not attempt to enter the opening
- 30 again because of the sharp points *b'*.
- Where the ventilator can be reached by hand, it is, of course, not necessary to make use of the cords, for the member E may be grasped and moved to cover or uncover the
- 35 ventilator openings. The protecting stamped portions *b* keep the rain and snow from entering, so that the ventilator can be left open in stormy weather without any danger from the elements.
- 40 The ventilator described may be manufactured in all sizes to fit windows of various heights or widths. They may be attached to the sash of any window without the use of nails or screws. Another feature
- 45 of the ventilator is that the window may be locked while the ventilator is open. Ordinarily, ventilators of this type are placed underneath the window when it is un-

The material used in the ventilator may be varied at liberty, without departing from the spirit or the scope of the invention.

I claim:—

1. The combination with a window pane and sash, of a ventilator comprising a casing formed of a single piece of metal bent to form grooves at its bottom, and being provided with openings, a slide within said casing having openings adapted to register with the first named openings, and a screen arranged to cover said openings, one of the grooves of the casing being adapted to receive and hold the edge of the pane, and the opposite edge of the casing being secured to the inner edge of the sash.

2. The combination with a window pane and sash, of a ventilator comprising a casing formed of a single piece of metal bent at its top to form two grooves, and at its bottom to form three grooves, a screen disposed within said casing in one of said top grooves and in one of said bottom grooves, a slide disposed within said casing in one of said top grooves and another of said bottom grooves, said pane being held in the third bottom groove.

3. The combination with a window pane and sash, of a ventilator comprising a casing formed of a single piece of metal bent at its top to form two grooves, and at its bottom to form three grooves, a screen disposed within said casing in one of said top grooves and in one of said bottom grooves, a slide disposed within said casing in one of said top grooves and another of said bottom grooves, said pane being held in the third bottom groove, said slide and said casing being provided with openings, and means secured to said slide and projecting through said casing for bringing the openings in the slide into registration with the openings in the casing for locking the slide in position.

GEORGE W. STEIN.

Witnesses:

F. J. QUIRK,
W. H. LEMASTERS.