O. A. HOLLIS.

WINDOW VENTILATOR.

APPLICATION FILED MAR. 15, 1916.

1,259,236.

Patented Mar. 12, 1918.

Fig.-1.

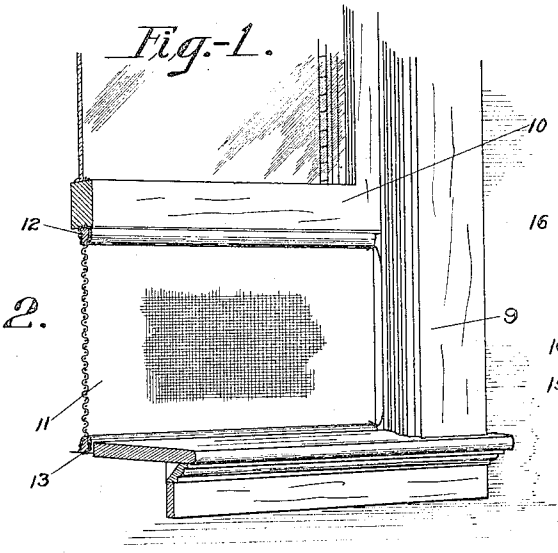
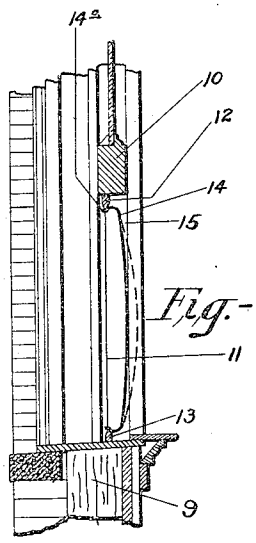


Fig.-2.



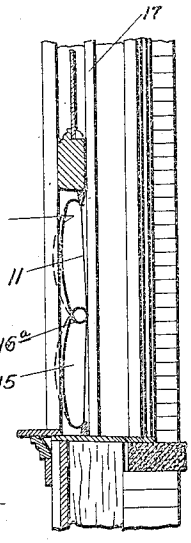


Fig.-4.

Fig.-3.

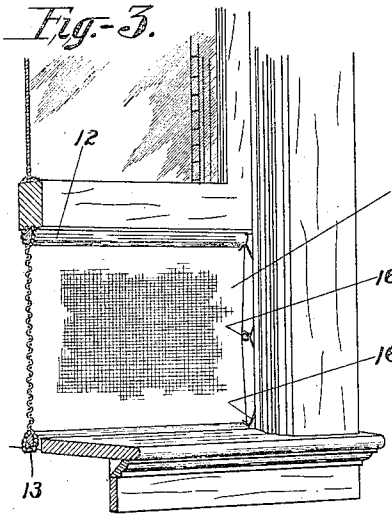
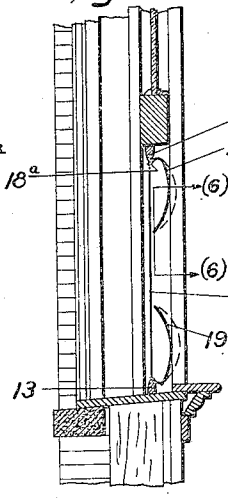


Fig.-5.



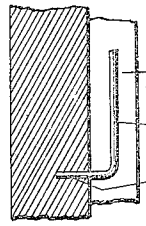


Fig.-6.

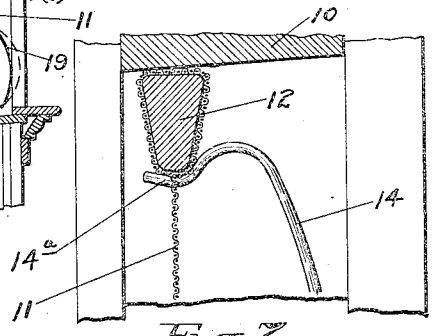
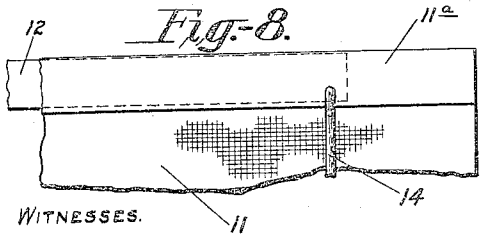


Fig.-7.

Fig.-8.



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WINDOW-VENTILATOR.

1,259,236. Specification of Letters Patent. Patented Mar. 12, 1918.

Application filed March 15, 1916. Serial No. 84,418.

To all whom it may concern:

Be it known that I, OTIS A. HOLLIS, a citizen of the United States, residing at Pittsburgh, in the State of Pennsylvania, have invented a certain new and useful Window-Ventilator, of which the following is a specification.

My invention relates to ventilating devices, and its primary object is to provide a cheap, simple and easily applied and adjusted pervious screen for openings in windows. Other objects are to provide for the admission of fresh air through a window without permitting direct drafts; to strain the dust out of the air admitted; to provide a fly screen; and to provide a mounting for a screen in such form that the screen may be readily removed and washed. A further object is to provide for a readily adjustable ventilator which may be cheaply marketed and applied without the necessity of any skill in fitting or mounting. The invention is illustrated in several forms in the accompanying drawing, in which—

Figure 1 is a partial perspective view of a window having one of my screens mounted therein; Fig. 2 is a central vertical cross section of a window casement and frame and ventilator; Fig. 3 is a partial perspective showing a different form of mounting, and Fig. 4 is a vertical section showing the said mounting. Fig. 5 is a sectional view of a window casement and sash showing a still further arrangement of holding devices for the screen, and Fig. 6 is an enlarged sectional view at right angles to that of Fig. 5, and on the line marked 6—6 therein. Figs. 7 and 8 are respectively a partial section and a partial front elevation showing the method of affixing the sustaining rod to the screen holding bars and incidentally showing the extension of the fabric beyond the supporting bars to close the opening at the side of the screen.

A really efficient means of fitting and adjusting and sustaining a flexible fabric screen in windows has long been needed, and it is particularly desirable to produce such a device in a form which is cheap and marketable without the necessity of any previous measuring or fitting. It is also highly desirable to have ready means of cleaning a window screen, since it is obvious that they always rapidly collect dirt, even with such wide mesh as to only serve as fly screens. I therefore provide for a simple and cheap mounting of a thin cloth fabric so as to fit under the sash and serve the purposes above set forth, as well as provide ventilation without drafts.

In Figs. 1 and 2 I show a window casement 9 with a sash 10 partially raised, and the resulting space filled by a flexible fabric 11 which is stretched between two wooden bars 12 and 13 by means of steel springs 14 which are provided with hooked ends 14^a adapted to perforate the cloth and secure a hold under the bar 12 as shown in Fig. 7. For this purpose it is of course sprung out of normal position as shown by the dotted line in Fig. 2; and it is to be noted in Fig. 2 that after being inserted it is of such form as adapts it to lie within the runway 15 of a window frame, which not only gives it a rigidity but removes it out of the way of disturbance and virtually out of sight.

The device will naturally be made in various lengths and widths, and in case of extra large screens I provide a stretching and holding spring for the supporting rods 12 and 13, as shown in Figs. 3 and 4. That is the steel spring 16 is given a complete loop in the middle at 16^a so that when the spring is in its position within the runway 15, as shown in Fig. 4, the loop 16^a will engage the screen 11 and hold it clamped against the guide bar 17.

Alternatively, and to avoid the necessity of such long springs as those shown in Figs. 2 and 4, I may arrange to support the stretching rods 12 and 13 for the screen 11, by providing on each side a pair of steel springs 18 and 19, which are supported by having their lower ends bent at right angles to the position of the engaging hooks 18^a and inserting them in holes in the window casement, as shown at 19 in Fig. 6.

Generally it will be preferable to make the fabric by sewing two wide hems at the top and bottom, and the fabric should be somewhat longer than the supporting rods so as to leave an overlapping end 11^a as shown in Fig. 8, which may be cut off to more exactly fit the opening and may also be bent around and fill the crack that might otherwise occur at the vertical edges of the screen. The numerous advantages of this device will readily occur to those familiar with the art.

Having thus described my invention and illustrated its use, what I claim is the following:

1. A ventilating screen comprising a per-

vious fabric having hems or loops at the top and bottom, removable supporting rods in said loops, and a spring device between the rods for holding the rods apart to stretch the fabric.

2. A ventilating screen comprising a pervious fabric having hems or loops at the top and bottom, supporting rods in said loops, and a spring device extending between the rods for holding the rods apart to stretch the fabric, said supporting springs being adapted to engage a window casement so as to hold the screen rigidly in position in an open window.

3. The combination with a flexible fabric, of supporting bars on two sides of the same, a resilient stretching device between the bars for holding the bars apart to keep the fabric taut, and means for supporting the stretching device in a window casement, substantially as described.

In testimony whereof I have hereunto signed my name.

OTIS A. HOLLIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."