(No Model.)

M. A. W. LOUIS.

WINDOW VENTILATOR.

No. 588,157. Patented Aug. 17, 1897.

FIG. 1.

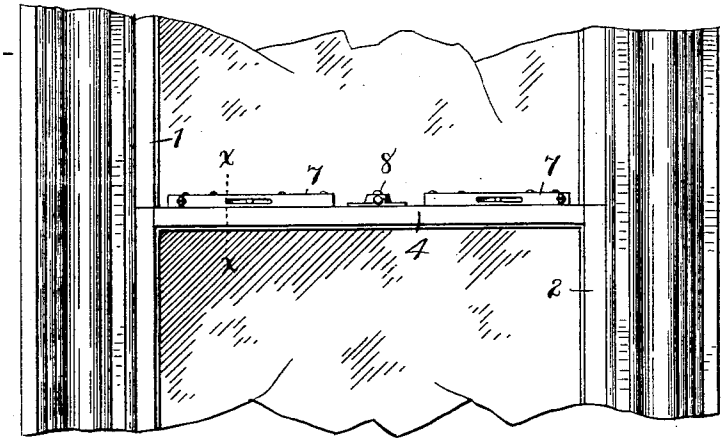


FIG. 2.

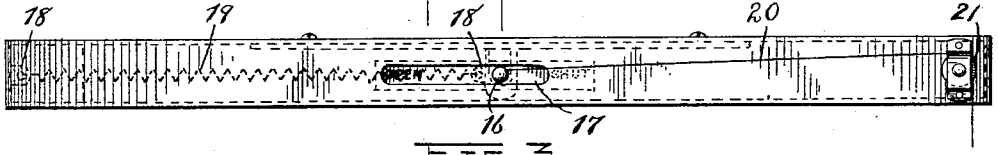


FIG. 3.

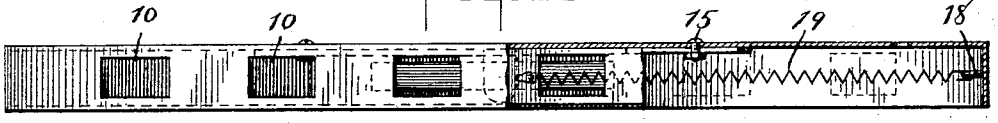


FIG. 4.

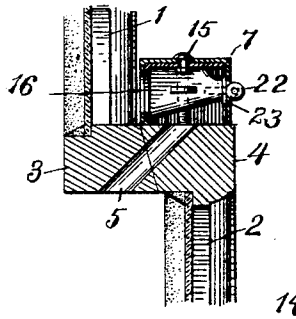


FIG. 5.

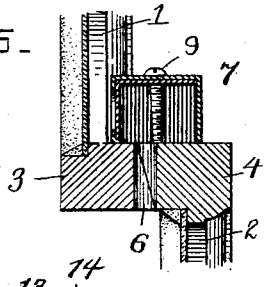
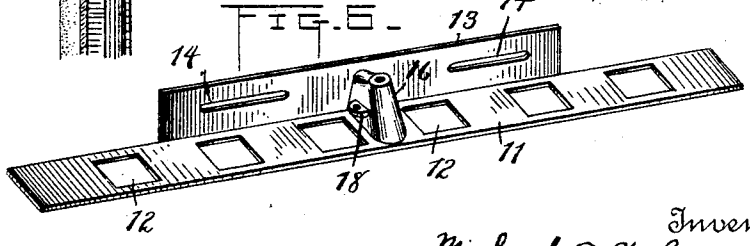


FIG. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

MICHAEL A. W. LOUIS, OF CINCINNATI, OHIO.

WINDOW-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 588,157, dated August 17, 1897.

Application filed January 4, 1897. Serial No. 617,919. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL A. W. LOUIS, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Window-Ventilators, of which the following is a specification.

My invention relates to ventilators for windows, and has for its object to provide a construction for controllably admitting air at the meeting-rails of the window-sashes in such manner that the air in its admission will be directed against the pane of the upper sash and from there diffused into the atmosphere of the room, thereby preventing any direct drafts upon the room occupants.

A further object of my improved construction is to effectually prevent any danger of the sash-lock being tampered with from the outside while the ventilator is open.

These objects I accomplish in the manner and by the means hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of a portion of a window-frame, showing the meeting sash-rails with my improved device attached thereto. Fig. 2 is an enlarged detail front elevation of one of my improved devices. Fig. 3 is an enlarged detail rear elevation of the same, shown partly in section. Fig. 4 is a vertical transverse section taken through the meeting-rails on the line *x x*, Fig. 1. Fig. 5 is a view similar to Fig. 4, illustrating a slightly-modified construction. Fig. 6 is a detail perspective view of the slide for controlling the passage of air into the room.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawings the reference-numeral 1 denotes the upper sash, and 2 the lower sash, of an ordinary window. The meeting-rails 3 4 of these sashes may be provided with a series of inclined apertures 5, adapted to register with each other when the window is closed, as shown in Fig. 4, or the said meeting-rails may have their inclined adjacent faces cut away along a portion of their length, thus providing for the passage of air, as shown at 6 in Fig. 5.

Affixed to the top of the lower meeting-rail 4 are the ventilators 7, preferably two in number and located on each side of the sash-fastener 8. These ventilators are retained in place by the screws 9 and cover the apertures 5, as shown in Fig. 4, or the cut-away portions 6, as shown in Fig. 5. Said ventilators consist each of a rectangular box-like structure open at its bottom to admit the passage of air thereinto through the apertures 5 or the cut-away portions 6, as the case may be, and provided with a series of openings 10 in its vertical side adjacent to the upper window-pane. Mounted inside said ventilator is a slide 11, apertured at 12 in a manner corresponding to the apertures 10 and provided with a horizontal extension 13, having longitudinal slots 14 therein to provide for the sliding engagement of said slide with the ventilator 7 through the bolts 15. A handpiece 16 projects through a slot 17 in the front side of the ventilator 7 and serves as a means for controlling the position of said slide 11. This handpiece is formed with a removable knob 22, between which and the handpiece proper may be located a plate 23, closing the opening 17 and on which may be marked the words "Open" and "Shut," one on each side of said knob and so arranged that but one will be disclosed at a time, thus indicating the position of the said slide; or, if desired, the said words may be placed upon the front panel of the ventilator, one on each side of or above the opening 17, and will thus indicate the condition of the ventilator by the position of the knob 22 with respect to said words, as will be readily understood.

Formed on one side of the handpiece 16 and in one end of the ventilator are the lugs 18, to which are attached the ends of a coiled spring 19, as shown, the tension of said spring tending to normally retain the slide 11 in such position that the apertures 12 are out of register with the apertures 10 in the ventilator. A cord 20, attached to the projecting knob 22 and passing from thence over a pulley 21, mounted on the other end of the ventilator, will serve to draw the slide 11 against the tension of the spring 19, and thus cause the apertures 10 and 12 to register. A suitable cord-holder may be provided on the vertical portion of the lower window-sash with which to engage the cord 20 to retain the slide 10 against the tension of the spring 19.

From the above description the operation of my improved device will be understood to be as follows: Presuming that the construction shown in Fig. 4 is employed, the ventilators 7 are located over the apertures 5 in the meeting-rails 3 4, so that air from the outside passes freely through said apertures into the ventilators when the window is closed, the springs 19 retaining the slides 11, so that the apertures 10 and 12 are out of register.

Now when it is desired to ventilate the room it is only necessary to pull down the cords 20, thus moving the slides 11 against the tension of the springs 19 and causing the openings 10 and 12 to register, thus admitting the air into the room. In its passage thus through the openings 10 the air will first impinge against the upper window-pane, thus breaking its force and causing a thorough draftless diffusion into the room atmosphere. It will be readily understood that the amount of air admitted can be properly controlled, according to requirement, by the movement of the slides 11 to more or less completely uncover the apertures 10. Furthermore, by employing the box-ventilators 7 the air may be admitted thereinto at one point, but will escape through all the apertures 10, thus providing for a diffused ventilation through a single ingress in the meeting sashes 3 4.

When the ingress 6 (shown in Fig. 5) is employed, the ventilators are placed so as to overlap the lower meeting-rail 3 of the upper sash, as shown, which need not be the case in the ingress construction illustrated in Fig. 4.

The devious course necessary to be taken by the air in its passage into the room renders any tampering with the sash-fastener from the outside practically impossible even when the ventilators are wide open.

While I have shown and described the springs 19 and cords 20 for controlling the slides 11, it will be understood that the same may be varied or dispensed with without impairing the efficiency of the device, as the slide can be operated directly by the knobs 22 on the handpieces 16.

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

1. In a window-ventilator, the combination with the meeting sash-rails apertured to permit the passage therethrough of air, of a box-like structure located over said apertures to receive the air and having openings in its vertical wall adjacent to the upper window-pane, and means for controlling the passage of air through said openings, substantially as set forth.

2. In a window-ventilator, the combination with the meeting sash-rails apertured to permit the passage therethrough of air, of an open-bottomed box located on said rails over said openings and having a series of openings in its vertical wall adjacent to the upper window-pane, and a slide for adjustably controlling the passage of air through said openings, substantially as set forth.

3. In a window-ventilator, the combination with the meeting sash-rails having one or more apertures to permit the passage therethrough of air, of a box-like structure located over said apertures to receive the air and having a series of openings in its vertical wall adjacent to the upper window-pane, a slide in said structure having openings corresponding with the openings in the vertical wall of said structure, a spring for normally retaining said slide in such position that said openings will be out of register, and means for moving or retaining said slide against the tension of said spring to cause said openings to register, substantially as set forth.

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

MICHAEL A. W. LOUIS.

Witnesses:
PERCY B. HILLS,
GEO. M. COPENHAVER.