

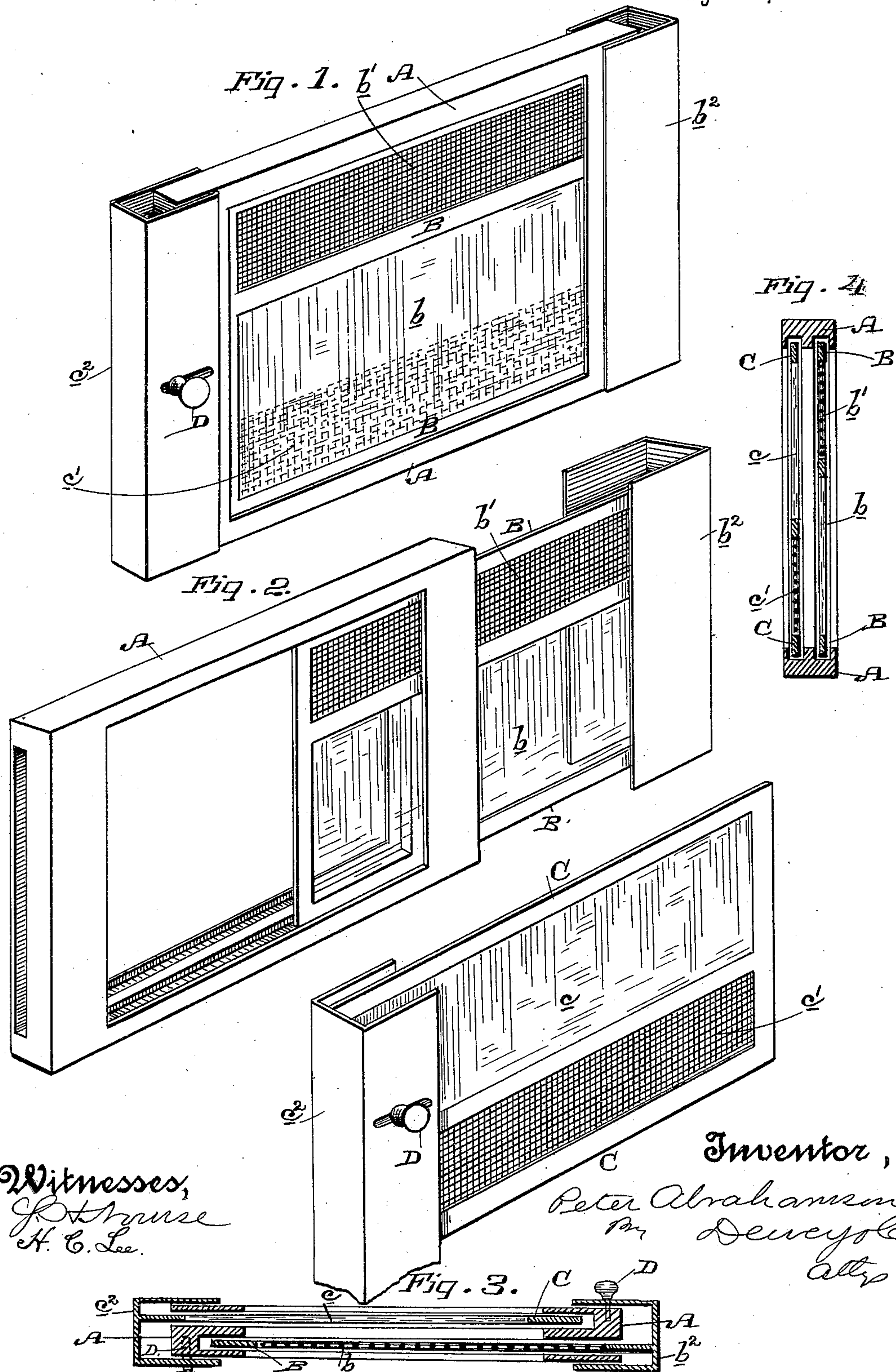
(No Model.)

2 Sheets—Sheet 1.

P. ABRAHAMSON.
WINDOW VENTILATOR.

No. 428,739.

Patented May 27, 1890.



Witnesses,
J. H. Hulse
H. C. Lee.

Inventor,
Peter Abrahamson
Per Devey
Atty

(No Model.)

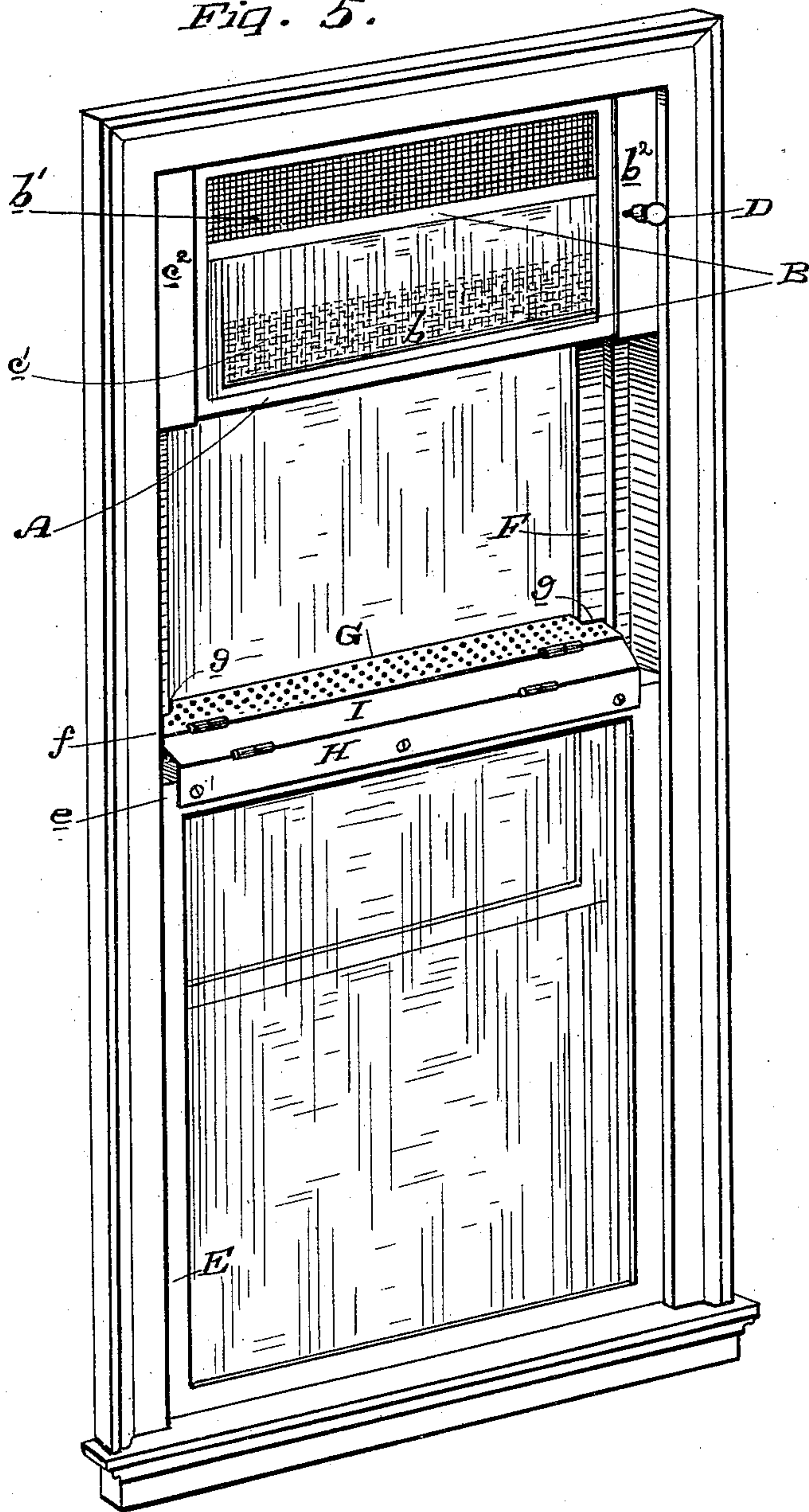
2 Sheets—Sheet 2.

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Fig. 5.



Witnesses,
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UNITED STATES PATENT OFFICE.

PETER ABRAHAMSON, OF SAN FRANCISCO, CALIFORNIA.

WINDOW-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 428,739, dated May 27, 1890.

Application filed November 12, 1889. Serial No. 330,072. (No model.)

To all whom it may concern:

Be it known that I, PETER ABRAHAMSON, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Window-Ventilators; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates both to the general class of ventilators and to that particular class which is exemplified by Letters Patent of the United States No. 355,904, issued to me January 11, 1887, and in which two separate plates or sheets are so arranged in a frame as to leave a passage between them, which communicates at the top with one side and at the bottom with the other side.

My invention consists in the constructions and combinations of devices which I shall hereinafter fully describe and claim.

The object of my invention is to provide an adjustable ventilator which a purchaser can obtain without special measurements of his window-casing, and which can be made to adjustably fit any window-casing, adapting it to be readily inserted and as readily removed when not removed.

Another object is to provide for protecting the opening between the meeting-rails of the sashes when separated.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my ventilator. Fig. 2 is a view showing one of the plate-frames partially withdrawn and the other removed wholly and shown below. Fig. 3 is a horizontal cross-section. Fig. 4 is a vertical cross-section. Fig. 5 is a perspective view showing my complete ventilator applied to a window.

The ventilator as I propose to make it consists of a casing A, with grooves on its inner sides and slots or apertures through its ends, adapting it to receive from and through opposite ends the oppositely-sliding plate-frames B and C.

In the sliding frame B is a ventilator-plate *b*, consisting of any suitable material, preferably of glass, secured in the frame in a proper manner, said glass, however, not extending the entire width of the frame, a screen-plate *b'* continuing it and the two fill-

ing up said frame. This sliding frame B has at one end a sleeve-plate *b²*, which is adapted to fit over the end of the casing A. The sliding frame C is similar to the frame B and carries a glass plate *c* and a screen-plate *c'* and has at its end the sleeve-plate *c²*; but the arrangement of the glass and screens in the two frames is the reverse of each other, as will be presently described. The two sliding frames enter the casing from opposite ends, passing through its end slots and fitting their own free ends in the slots of opposite ends of the casing.

The sleeve-plates of the two frames fit over their respective ends of the casing, and said ends are made wide enough, as shown, to permit the oppositely-sliding movement of the frames within all required limits without exposing their own ends from the ends of the casing.

The arrangement of the glass plates and the screen-plates in the two frames is, as I have mentioned, the reverse of each other—that is to say, the glass plate of one extends upwardly from the bottom, while the glass plate of the other extends downwardly from the top, passing by each other, but each terminating short of the other side, whereby openings are left—one on one side at the bottom and the other on the other side at the top—and the screen-plates fill these openings. There is therefore formed between the two plates a passage, which opens out on one side at the top and on the other side at the bottom, similar to the ventilating-passage in my device (secured by patent) heretofore mentioned.

Set-screws D are seated in the ends of the casing A, and over these set-screws play the elongated slots of the sleeve-plates of the sliding frames, whereby said frames may be drawn in and out of the casing and held in any position desired by tightening the set-screws.

This ventilator is intended to be adjustably mounted in the window-casing, either in connection with the lower sash E or in connection with the upper sash F. With the lower sash it is set as follows: When ventilation is desired, the lower sash is raised and my ventilator is placed in the window-casing so that its ends fit in the outer grooves but

at their lower portions, so that said ventilator may remain there as long as desired and without interfering with the up-and-down movement of the lower sash nor with the partial movement of the upper sash. The ventilator is fitted to its place by extending or drawing out in opposite directions the two sliding frames, so that their end sleeve-plates abut against the window-casing grooves, thus making the device long enough to fit snugly in its seat. Therefore the ventilator is adapted to be placed in any window-casing and adjustably fitted therein without the necessity of accurate measurements in the first place. In this slight movement of the two frames their free ends do not come beyond the ends of the casing A so as to be exposed, for the ends of said casing are made of sufficient width to allow the sliding frames all the movement necessary without coming out of their slots.

For use in connection with the upper sash the ventilator is placed in the upper ends of the inner grooves of the window-casing, so that it does not interfere with the movement of the upper sash nor with the partial movement of the lower sash; but in either place it will be seen that by simply moving either sash the ventilator is exposed and operates as such.

The main feature of the invention is the peculiar extensibility of the ventilator, by which it can be adjusted in its place in any window-casing, and, as far as this feature is concerned, it is immaterial what may be the character of the ventilator itself, as it may be simply a couple of screens covering its entire surface. In this connection I am aware of those extensible screens for window-casings where the two screens are fitted together so as to slide upon each other, their inner ends overlapping through suitable guides. I do not, therefore, claim the mere extensibility of screens, but only the construction of the double plates sliding in at each end of a casing and constructed, as I have shown, so that there is no central bar extending transversely of the ventilator, as in the ordinary extensible screen. This construction, it will also be seen, is very useful in connection with the peculiar ventilator, consisting of the separated plates having an opening above and below at opposite sides, thus adapting my former ventilator to its new use by reason of its adjustability. From the foregoing it is obvious that when either sash is moved the meeting-rails *e* and *f* are separated and there is an opening left between them. To protect this opening I traverse it with a screen G. This screen, though it may be of any character, is preferably an adjustable one formed as follows: To the meeting-rail of the lower sash is secured a plate II, which extends above said rail. To the top of this plate is hinged a second plate I, and to this plate is hinged the screen G. The ends of this screen are pref-

erably cut out at *g* to enable it to pass by the stiles of the upper sash. Now in operation the first plate II raises the whole connection above any sash-fastener which may be on the lower sash, and the hinged plate I overrides this fastener at any suitable inclination, while the screen G extends across and fits its entire free edge against the upper-sash stile and its glass, thereby protecting the opening between the two sashes, though the sashes can be moved without interfering with the screen. This screen G applies to any window-ventilator which requires the separation of the meeting-rails of the sashes.

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

1. A window-ventilator consisting of the combination of the casing A, having slotted ends and oppositely-sliding ventilating plates or sheets fitted in said casing from and through opposite ends, whereby the whole device is rendered adjustable to different widths of window-casings, substantially as herein described.

2. In a window-ventilator, the casing A, having the slotted ends, in combination with oppositely-sliding ventilating plates or sheets passing through said casing from opposite ends and the overlapping sleeve-plates on the ends of the ventilating plates or sheets fitting over the ends of the casing, substantially as herein described.

3. In a window-ventilator, the combination of the casing A, having the slotted ends, separate oppositely-sliding ventilating plates or sheets fitting and passing through the ends of the casing from opposite ends, the slotted sleeve-plates on the ends of the ventilating plates or sheets and fitting over the ends of the casing, and the set-screws in the casing ends for holding the plates or sheets in the position to which they are adjusted, substantially as herein described.

4. In a window-ventilator, the combination of the casing A, having the slotted ends, the oppositely-sliding plates or sheets fitted in and passing through the slotted ends of the casing from opposite ends, said plates or sheets extending across the casing from opposite sides, overlapping and each terminating short of the opposite side, so as to leave an opening above and below on opposite sides, and the screen-sheets in and covering said openings, substantially as herein described.

5. A window-ventilator consisting of the casing A, having the slotted ends, the oppositely-sliding frames passing through said casing from opposite ends and having the sleeve-plates at one end fitting over the ends of the casing, the glass plates in the sliding frames overlapping each other and terminating short of opposite sides, so as to leave an opening above and below on opposite sides, and the screen-sheets in and covering said openings, substantially as herein described.

6. In a window-ventilator, and in combination with the window-sashes, the plate H, secured to the meeting-rail of the lower sash, the plate I, hinged to the plate H, and the
5 screen G, hinged to the plate I and adapted to protect the opening between the sashes when their meeting-rails are separated, substantially as herein described.

In witness whereof I have hereunto set my hand.

PETER ABRAHAMSON.

Witnesses:

L. MEININGER,
S. H. NOURSE.