

(No Model.)

P. ABRAHAMSON.  
WINDOW OR DOOR VENTILATOR.

No. 355,904.

Patented Jan. 11, 1887.

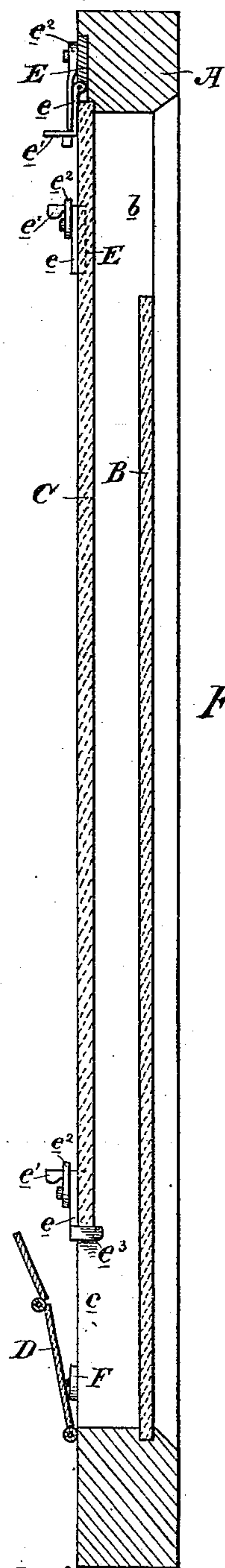


Fig. 1.

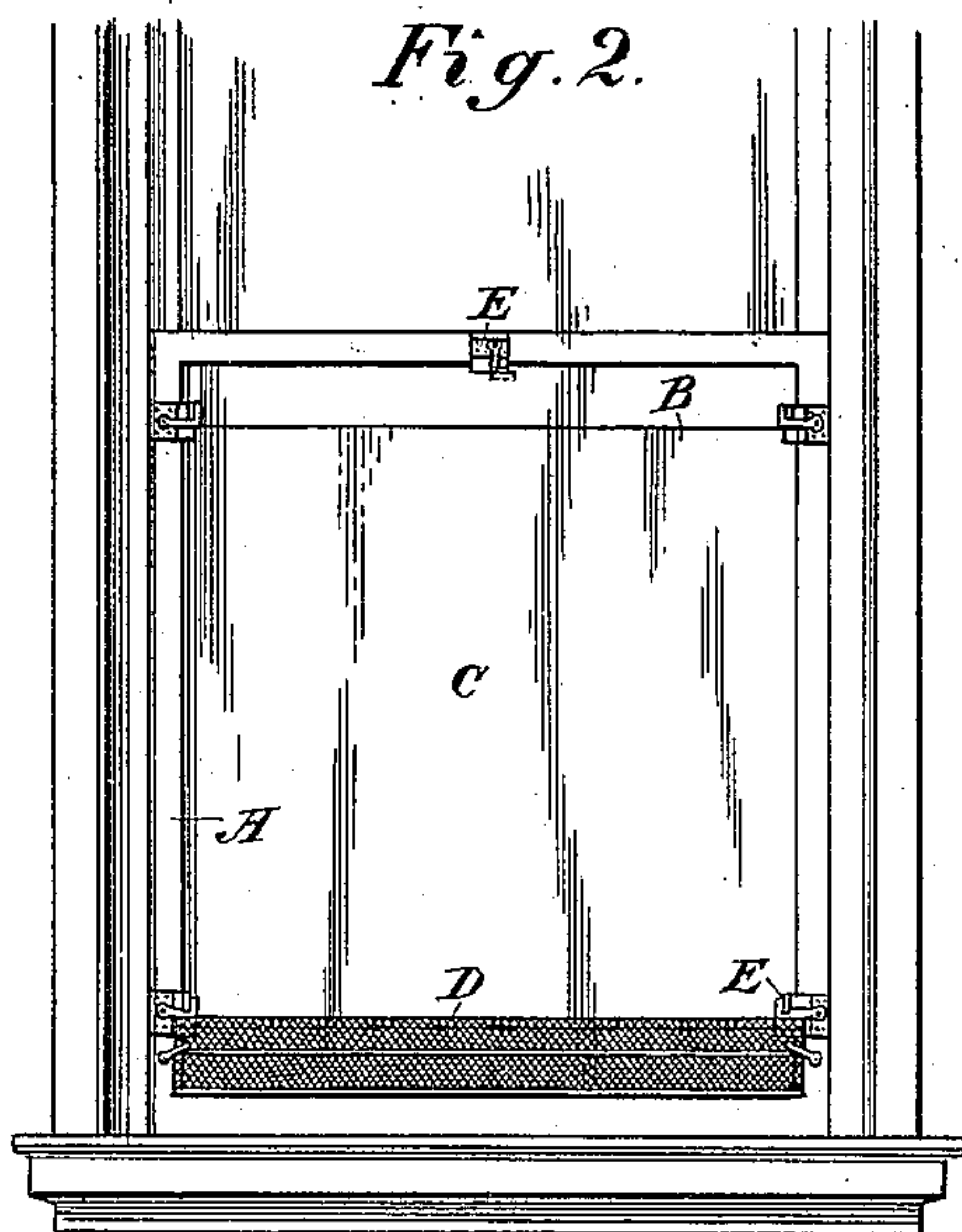


Fig. 2.

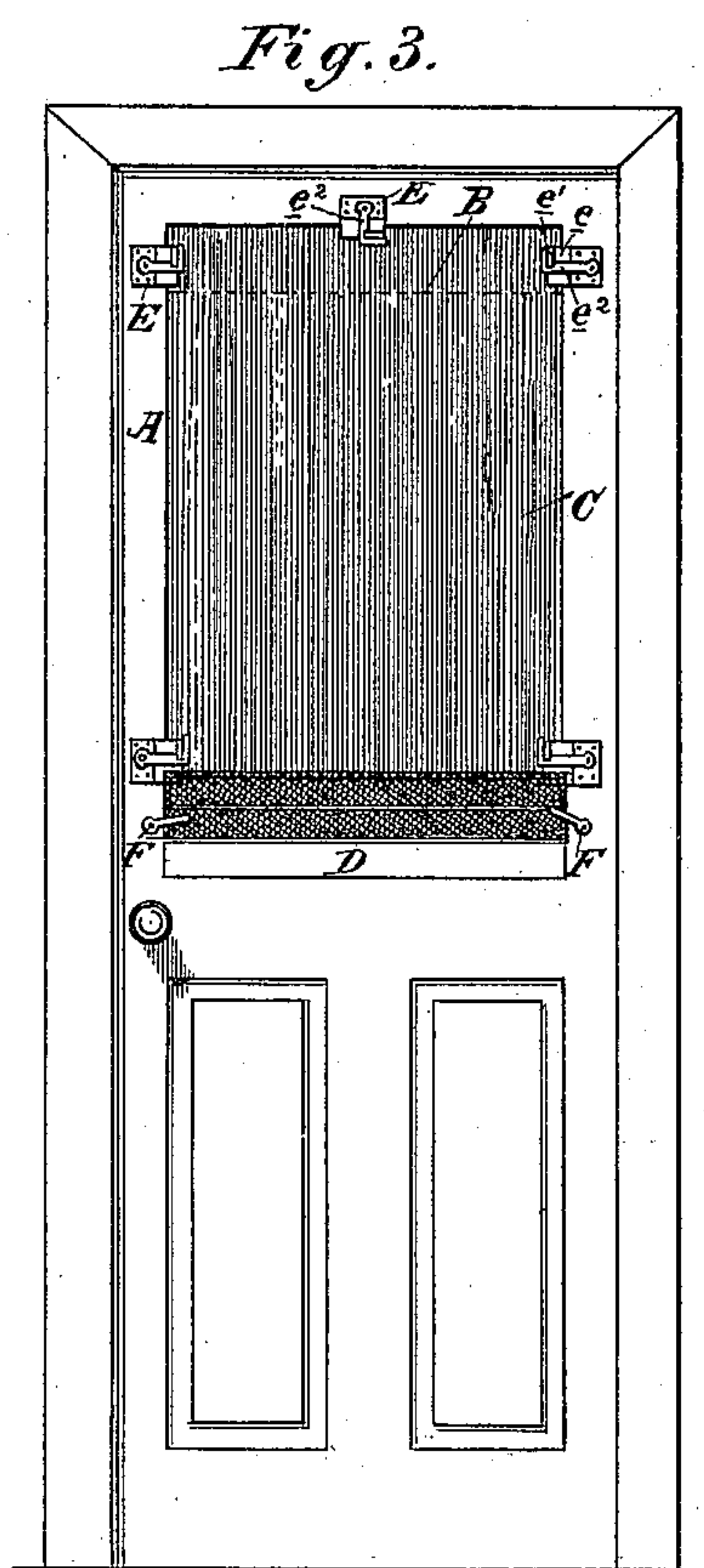


Fig. 3.

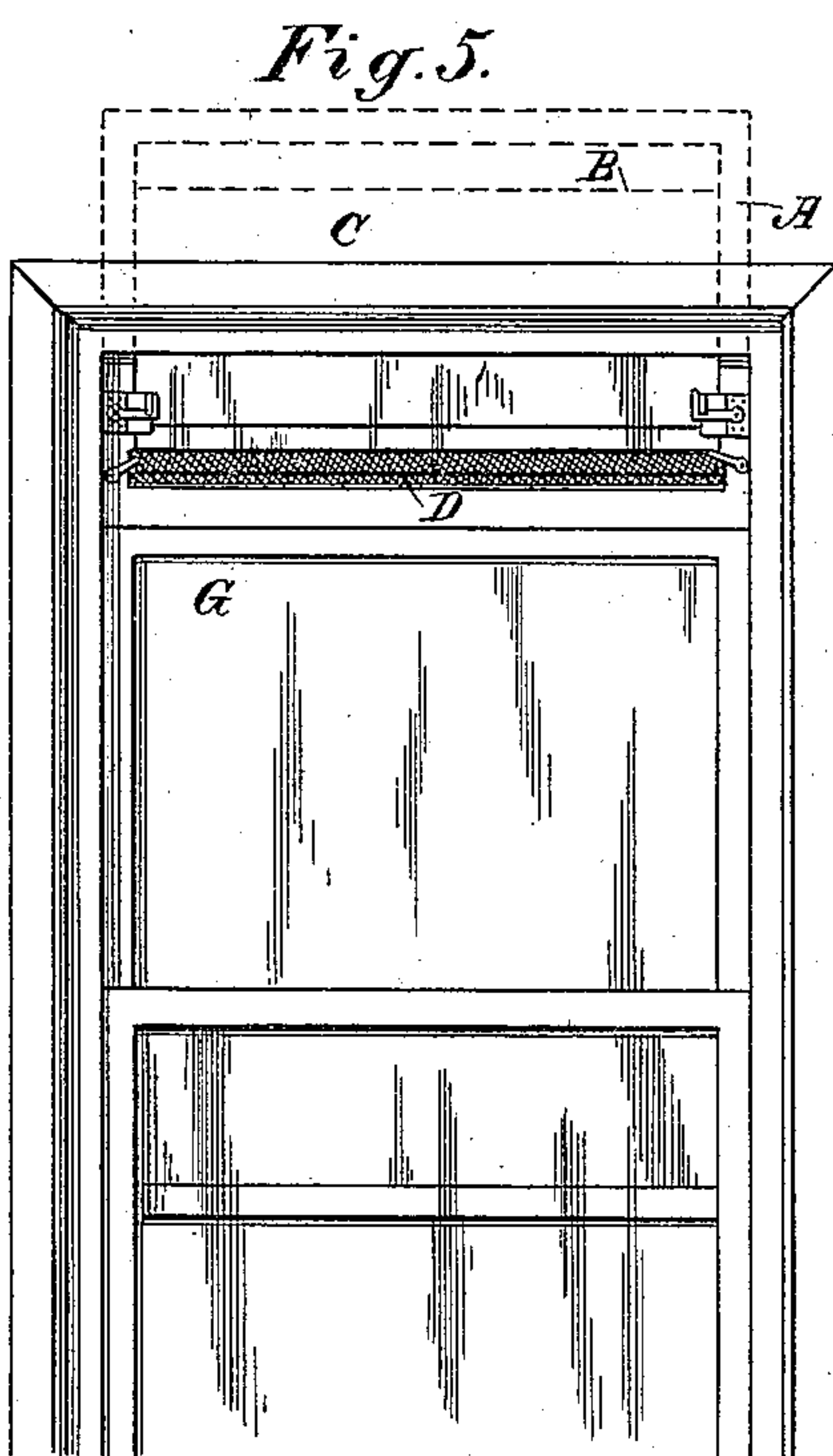


Fig. 5.

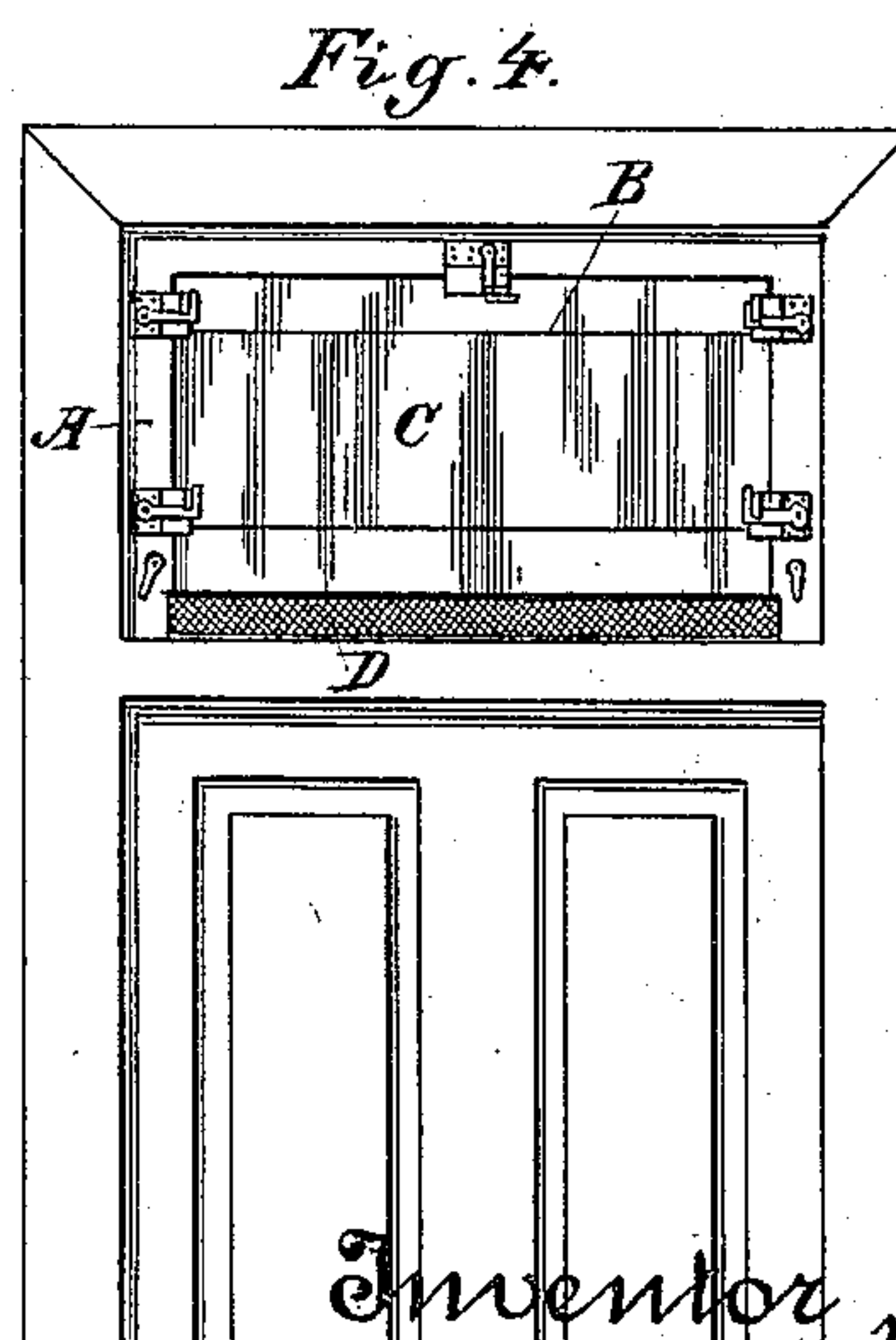


Fig. 4.

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# UNITED STATES PATENT OFFICE.

PETER ABRAHAMSON, OF SAN FRANCISCO, CALIFORNIA.

## WINDOW OR DOOR VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 355,904, dated January 11, 1887.

Application filed September 29, 1886. Serial No. 214,894. (No model.)

*To all whom it may concern:*

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

My invention relates to the class of ventilators for window-sashes, transoms, doors, and other similar communications between apartments and the outer air; and it consists in the constructions and combinations of devices, which I shall hereinafter fully describe and claim.

The object of my invention is to provide for the perfect and easy ventilation of apartments through the usual avenues of communication with the exterior, and without interfering with the devices—such as windows, transoms, doors, &c.—usually controlling said avenues.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a vertical section of my ventilator. Fig. 2 is a view showing my ventilator as a window-sash. Fig. 3 shows its application to a glazed door. Fig. 4 shows it applied to an ordinary transom. Fig. 5 shows it applied in a novel manner as a vertically-adjustable transom connected with the upper glazed sash of a window.

In all the figures, A is the frame. In some cases it is a sash-frame, in some the door-frame, in others the transom-frame, and in others, again, it may be the frame of any similar part of the apartment.

B is a glass, pane, light, or sheet, secured in suitable manner, as by putty, to the outer face of the frame. C is a second glass, pane, light, or sheet, secured, as I shall presently describe, to the inner face of said frame. There is a passage or space thus formed between the two. The outer one, B, is shorter than the frame A, and thus is formed at one end an aperture, *b*, which communicates with the space or passage between the two. The inner one, C, is likewise shorter than the frame, and it is so arranged as to leave an aperture, *c*, at the end of the frame opposite to the end at which the aperture *b* is formed, said aperture *c* communicating with the passage between the two glasses, panes, lights, or sheets. In this way a continuous passage is provided between the

exterior and the interior of the apartment, and through this the proper air-current is established for ventilating the apartment.

D is a screen, made in any suitable number of hinged sections. It is also hinged to the frame A, adapting it to be folded and unfolded, whereby when not in use it may be turned back out of the way, and when needed may be turned down to cover the aperture *c*, thus preventing the incoming of flies and other insects.

Though the inner glass, pane, light, or sheet may be permanently secured to the frame A, I prefer to attach it in such a manner as to render it readily removable, so that the inner surfaces of the two glasses or sheets may be easily cleaned. The means for thus securing it which I prefer are as follows:

E are plates screwed to the sash. To these are hinged the plates *e*, one end of which is provided with a catch, *e'*. To the plates E are pivoted the hooks *e''*, which engage the catches. The plates *e*, when turned out in line with the plates E, overlap the edges of the glass, pane, light, or sheet C, and the engagement of the hooks *e''* with their catches *e'* holds them in such position, thus firmly securing the glass or sheet. By turning the hooks from their engagement the plates *e* may be folded back on the plates E, thus relieving the glass or sheet and permitting it to be removed. The lowermost of the plates *e* are provided with lugs *e'''*, which, when the said plates are turned over to bind the glass or sheet, pass under its lower end and support it.

Hooks or catches F may be used for holding the screen D either folded or unfolded.

In Fig. 5 I show a novel arrangement of my ventilator. In this case it is formed or connected with the upper window-sash, G, and moves up and down with it. When the sash is pushed up, the ventilator is entirely inclosed in the wall above and out of the way; but when needed it is exposed by being pulled down with the window-sash.

In most cases the panes B and C will be made of glass; but sometimes they may be made of sheets of other material.

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

1. A sash, transom, or door ventilator con-



• sisting of a suitable frame, A, and separated or spaced glasses, panes, lights, or sheets secured thereto and arranged to leave an aperture at opposite ends of the frame, whereby a  
5 passage is formed through which a current of air passes, substantially as herein described.

2. A sash, transom, or door ventilator consisting of a suitable frame, A, a glass, pane, light, or sheet, B, on the outer face of the  
10 frame and shorter than said frame, whereby an aperture, *b*, is formed at one end, and a glass, pane, light, or sheet, C, on the inner face of the frame, whereby a passage is formed between it and the outer glass, pane, light, or  
15 sheet, the glass, pane, light, or sheet C being shorter than the frame and forming an aperture, *c*, at that end of the frame opposite the end at which the aperture *b* is formed, substantially as herein described.

20 3. The frame A and the independent separated or spaced glasses, panes, lights, or sheets B C, having apertures *b c*, communicating with the space between them, as described, in combination with the folding hinged screen D,  
25 adapted to cover the aperture *c*, substantially as herein described.

4. The frame A and the removable glass, pane, light, or sheet C, in combination with the means for securing said glass, pane, light,

or sheet to the frame, consisting of the plates 30 E, the plates *e*, hinged thereto and overlapping the edge of the glass or sheet, the catches *e'* on the plates *e*, and the pivoted hooks *e''* on the plates E, substantially as herein described.

5. The frame A, the fixed outer glass, pane, 35 light, or sheet, B, the removable inner glass, pane, light, or sheet, C, forming a passage between itself and the outer glass or sheet, and the apertures *b c* at opposite ends of the frame, as described, in combination with the means 40 for securing the inner glass, pane, light, or sheet to the frame, consisting of the hinged plates E *e*, the catches *e'*, the lugs *e''*, and the hooks *e''*, substantially as herein described.

6. In combination with the upper sash, G, 45 of a window, the frame A, formed or connected with its top, and the independent spaced or separated glasses, panes, lights, or sheets B C, having the opposite apertures, *b c*, communicating with the intervening space, the outer 50 air, and the apartment, substantially as herein described.

In witness whereof I have hereunto set my hand.

PETER ABRAHAMSON.

Witnesses:

S. H. NOURSE,  
H. C. LEE.