

J. EVELETH.

DEVICE FOR VENTILATING ROOMS AND BUILDINGS.
No. 174,622.

Patented March 14, 1876.

Fig 2.

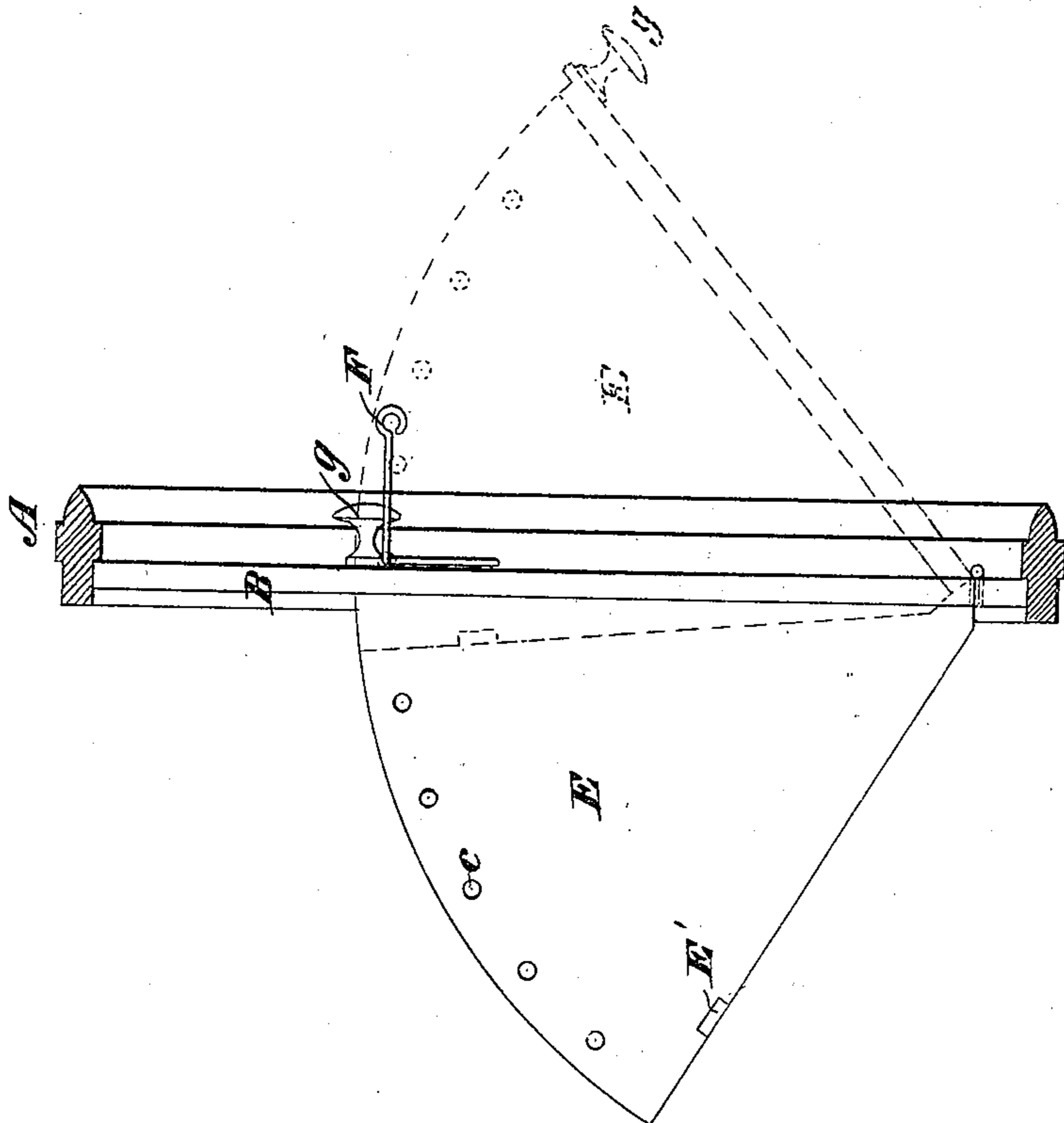
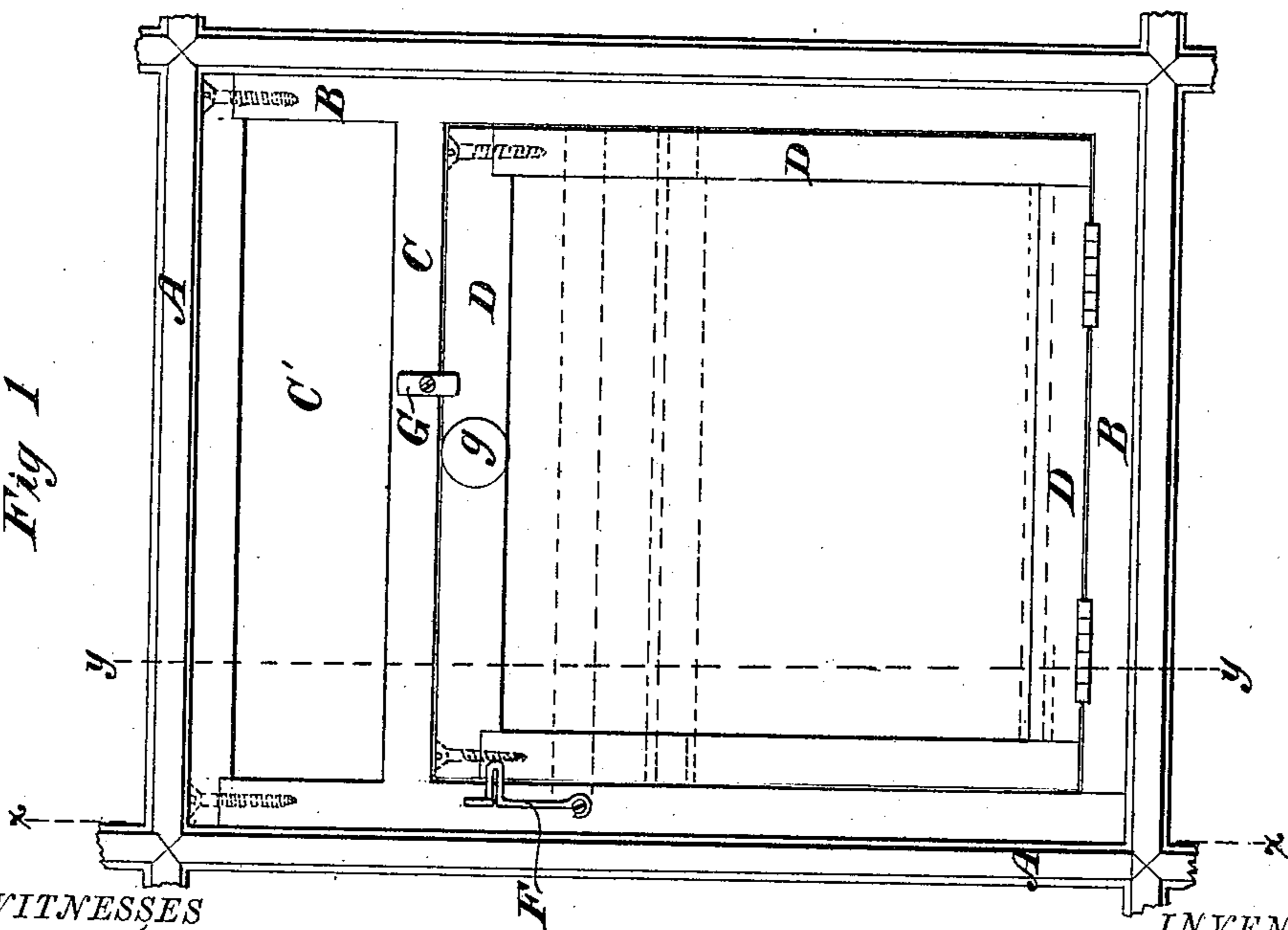


Fig 1



WITNESSES

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INVENTOR

James Eveleth

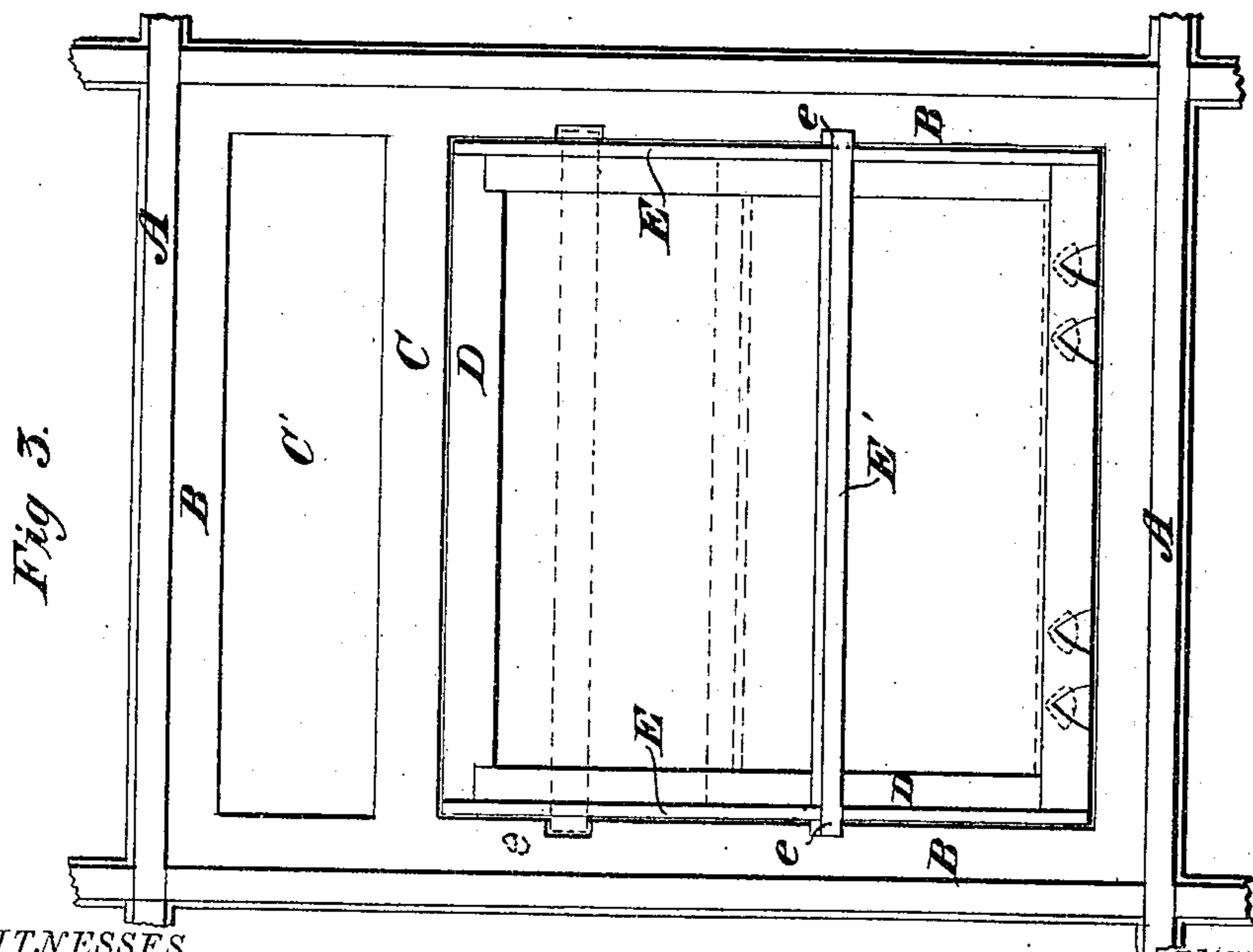
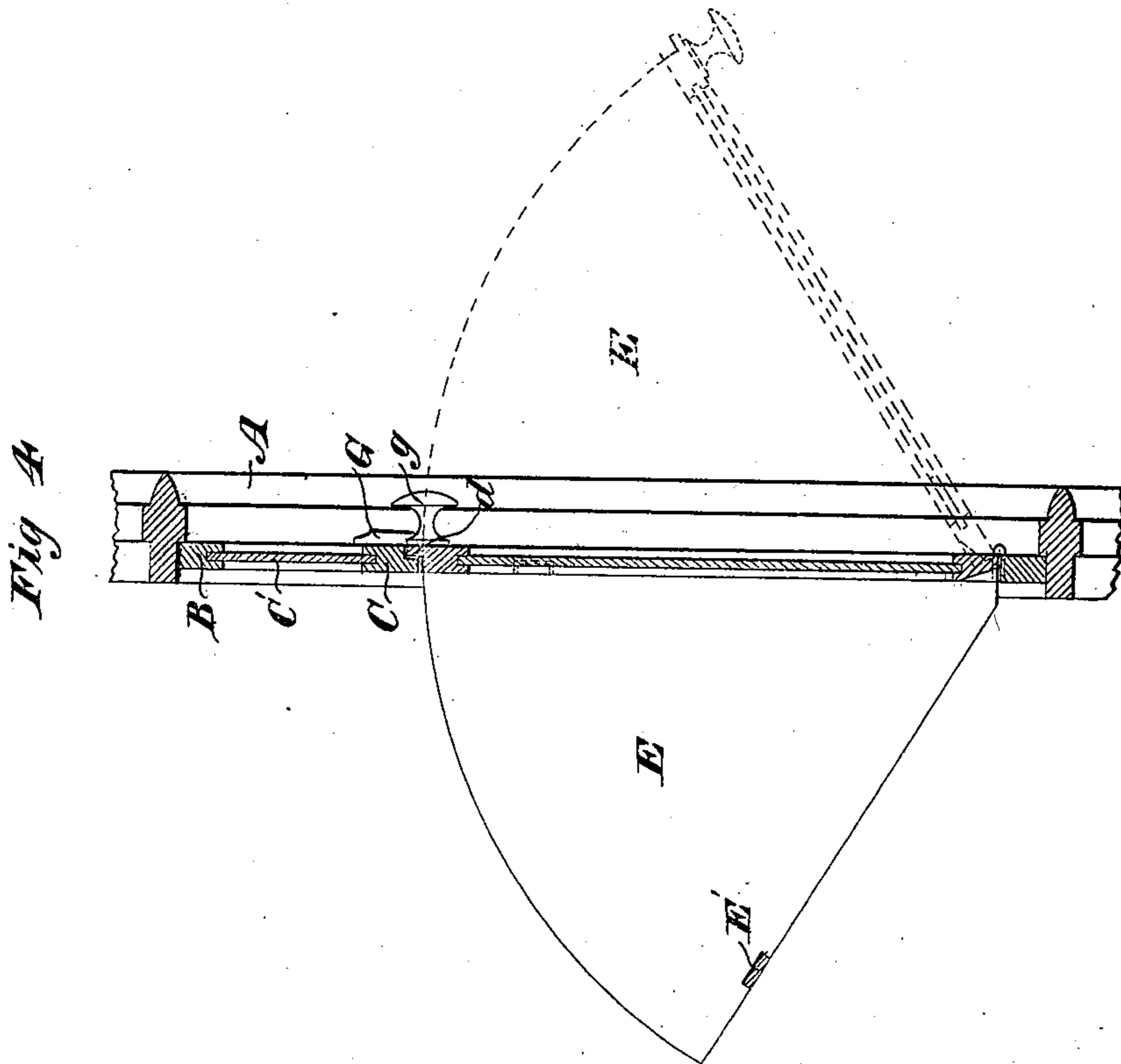
By *his* Attorney

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UNITED STATES PATENT OFFICE.

JAMES EVELETH, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN DEVICES FOR VENTILATING ROOMS AND BUILDINGS.

Specification forming part of Letters Patent No. **174,622**, dated March 14, 1876; application filed February 23, 1876.

To all whom it may concern:

Be it known that I, JAMES EVELETH, of Washington city, District of Columbia, have invented certain new and useful Improvements in Devices for Ventilating Rooms and Buildings, of which the following is a specification:

The object of my invention is to ventilate buildings or rooms by freely admitting air from the exterior in such a way as to promote the comfort and health of the occupants thereof without exposing them to deleterious currents; to which end my improvements relate to a ventilator of the class by which the inflowing current of air is directed upward; and my invention consists of a ventilating device adapted to be inserted in a window-sash in lieu of one of the "lights" or panes of glass thereof, and so constructed that the flow of air or current allowed to pass inward may be regulated at pleasure or cut off entirely, as will hereinafter more fully be set forth.

In the accompanying drawings, which show a portion of a window-sash with my improved ventilating device secured thereto, Figure 1 represents a front elevation with the ventilator closed; Fig. 2, a section on the line *xx* of Fig. 1; Fig. 3, a rear elevation, with the ventilator closed; and Fig. 4, a section on the line *yy* of Fig. 1. The dotted lines in the several figures show the positions assumed by the parts when air is admitted.

In place of one of the lights or panes of glass in a window-sash, A, is inserted and secured, in any suitable manner, a frame, B, of exterior length and width corresponding to the size of a light of glass in the window of the room or building to be ventilated. The top, bottom, and sides of this supporting-frame should not be wider than is necessary to give it stability sufficient to admit of handling without injury, so that the space inclosed thereby may not be unnecessarily contracted. This inclosed space, in this instance, is shown as divided by a narrow bar, C, the lower division of the space being larger than the upper division C', which is closed with glass. The lower space is occupied by glass in a frame, D, hinged or pivoted at its bottom and provided with a sector, E, of thin wood or metal, stout tin or galvanized iron preferred, with radius equal to the height of the frame and arc

of sixty or more degrees at each of its sides and at a right angle to its face, so that when the top of this interior frame is drawn inward the air may have ingress to the room only in the upward direction in which it will be deflected by contact with the inclined exterior surface of the framed glass. In one or both of the sectors, near its top and parallel to its arc, are holes *c*, at such distance apart as will admit of the framed glass being drawn inward and adjusted by means of a catch bolt or stop, F, on the side of the frame B, to regulate the amount of air admitted. This stop or catch (two of which may be employed, if desired) swings at a right angle to the direction of movement of the swinging frame D, and engages in one of the series of holes *c* in the frame sectors, and may also serve to hold the swinging frame closed when the ventilator is shut. A button, G, to fasten the framed glass D in place when the ventilator is closed, may be employed, as well as a knob, *g*, for moving the frame by. When the ventilator is rendered inoperative by closing its swinging frame, a lip or flange, *d*, abuts against the cross-bar C, when the device is constructed as represented by the drawings; but it is obvious that this bar C and the flanged division C' may be dispensed with and the top of the swinging frame D extend up to the top of its supporting-frame B, in which case the controlling-flange *d* would rest against the top part of the frame B.

When the ventilator is adjusted for the passage of the greatest amount of air, it is capable of admitting the ends *ee* of a cross-bar, E', serving as a brace for the guiding and regulating sides or sectors E of the frame D, enter notches in the supporting-frame, and the outermost portion of these sides and their bar and stops lie flush with or within the outside of the frame B, to admit of the sash to which the ventilator is attached being slid by the other sash of the window.

The glass in the frame D and that in the division C' (when such division is employed) may be secured in place by glazing, as usual; but I prefer to form grooves in the inner surfaces of the sides and bottom of the frames for the glass, and to likewise groove the under side of the tops of the frames and removably hold them upon the sides by means of screws. In

this manner, should the glass be broken by removing the top pieces of the frame, new glass may be slid in the grooves and secured in place by screwing the tops in place.

The external air entering the room or building cannot escape sidewise to create injurious drafts, but is directed upward by the glass and sides of the swinging frame, at whatever angle (within its adjustment) to the window it may be adjusted.

Instead of employing the supporting-frame B to be attached to the sash, as described, the swinging frame D might obviously be hinged directly to the sash, so as to work snugly in the space for a light or pane therein, the catch-bolt F being secured to the sash and the top of the swinging frame abutting, when closed, directly against the sash. The frame B might, if desired, be made to extend the width of the sash and rest upon the window-sill, so that the sash could be lowered upon the frame when in place between the uprights of the window-frame; but I prefer the construction shown by the drawings.

It will be seen that the glass in the adjusting-frame does not obstruct the view of a person from the window, and allows the light to enter freely to the room.

I claim as of my own invention—

1. The ventilator adjusting-frame, constructed substantially as hereinbefore set forth, with a pane of glass secured therein, provided with sector-shaped sides, and adapted to be secured to a window so as to swing at an angle thereto, as specified.

2. The combination, substantially as hereinbefore set forth, of the supporting-frame adapted to be secured to a window-sash, the hinged swinging frame, its sides, and the catch for holding the swinging frame in the desired position relatively to the supporting-frame, for the purpose specified.

3. The combination of the supporting-frame, constructed as described, to adapt it for attachment to a window-sash in lieu of one of the lights thereof, the hinged adjusting-frame having glass secured therein and provided with fixed sides and the stops thereon, these members being constructed and operating, substantially as hereinbefore set forth, to admit of the sash carrying the ventilator sliding by the other sash of the window.

In testimony whereof I have hereunto subscribed my name.

JAMES EVELETH.

Witnesses:

Z. W. DENHAM,
H. A. CURTIS.