

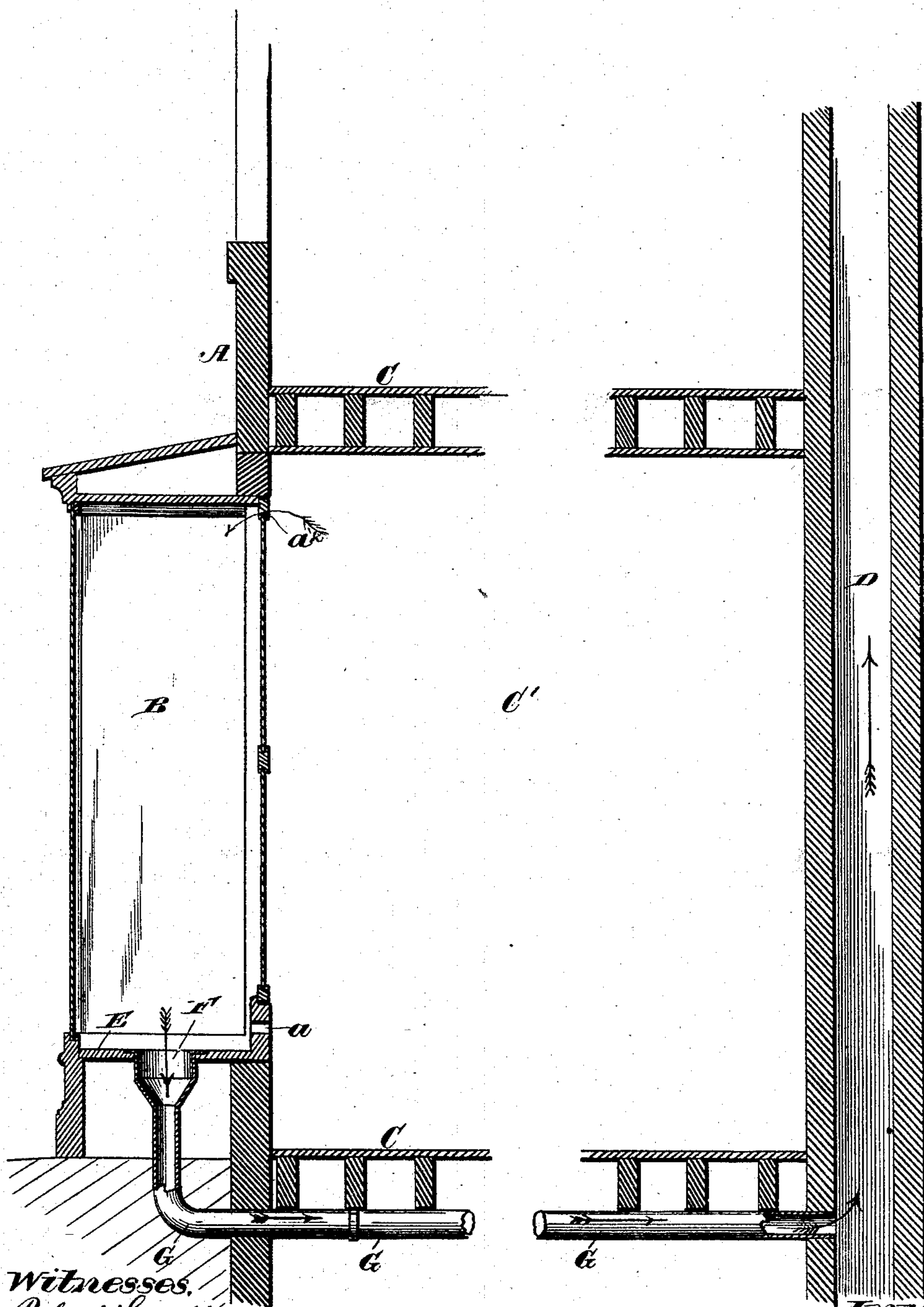
(No Model.)

C. S. FOOS.

MEANS FOR VENTILATING BOW WINDOWS.

No. 291,322.

Patented Jan. 1, 1884.



Witnesses,
Robert Everett,

J. A. Rutherford.

Inventor
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UNITED STATES PATENT OFFICE.

CHARLES S. FOOS, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF
TO WILLIAM H. CLIFFORD, OF SAME PLACE.

MEANS FOR VENTILATING BOW-WINDOWS.

SPECIFICATION forming part of Letters Patent No. 291,322, dated January 1, 1884.

Application filed September 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. FOOS, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in Means for Ventilating Bow-Windows, of which the following is a specification.

My invention relates to show-windows for bazaars and other places of business; and the purpose thereof is to provide means for maintaining such a constant circulation of air through the same as will effectually prevent the condensation and congelation of moisture upon the glass of the window, by which the view of the articles exhibited therein is obstructed.

To this end, therefore, my invention consists in the combination, with the sill of a show-window, of a ventilator having its air-pipe connected with a flue of the building, whether the same be a furnace or other flue, whereby the cooler air at the bottom is carried away, permitting the warmer currents to flow in at the top and descend, the constant circulation thus established keeping the air dry and raising the temperature above the freezing-point, whereby accumulation of frost upon the glass is prevented, as well as the excessive condensation of moisture from the inner air.

Referring to the drawing, the figure is a central vertical section, taken through the window and through a portion of the building, including one of the flues belonging thereto.

A in said drawings designates the outer wall of the building, and B the show-window projecting therefrom, and having glass front and sides, with an inner glass door formed in two hinged sections, all these parts being of the usual construction.

C indicates the flooring of the building, and D represents a flue located at any convenient point therein.

Within the bottom or sill E of the window, at any convenient point, I form an opening, in which is placed a ventilating-funnel, F, to which is connected an air-conducting pipe, G, leading inward and conducted in any convenient manner to one of the flues D of the

building, which may be a furnace-flue or otherwise; or, if desired, a vertical air-pipe may be employed, discharging at or near the top of the building. If required, openings may be formed within the inner wall of the window—as, for example, at *a*—to admit a flow of air from the interior of the building; but this constitutes no essential part of my invention.

The function of the parts described is as follows: The colder currents of air, which settle to the lower part of the window, pass into the pipe G, and thence into the flue D, by which they are carried off. A circulation of air is thus created, the warm stratum of air which rises to the top of the room or apartment C' of the building flowing into the space inclosed by the window, through a suitable opening or passage-way, *a*², at the upper portion of the inner door to the window, such inflowing stratum of warm air taking the place of the air passing out through the pipe G. By this means the temperature is increased and the condensation of moisture upon the glass and its congelation thereon are avoided, and the window is kept clear, so that its contents may be plainly seen in all weathers. Where more than one window is located within the same building branch pipes may conduct from each to a common escape-pipe.

Heretofore and prior to my invention show-windows have been provided with air-inlets at or near the bottom part of such windows, with outlets at the top conducting to the outer air, or to the interior of the room adjacent to the window; and to such a construction I make no claim.

Having thus described my invention, what I claim is—

1. The combination, with a show-window, of means for admitting thereto a warm stratum of air, and an exit in the lower portion of the window for the escape of air, a circulation being thus created through the window, substantially as and for the purpose set forth.

2. The combination, with a show-window, of an air-escape pipe entering the bottom or

sill of said window and leading to a flue or air-escape; which communicates with the open air at or near the top of the building, substantially as described.

- 5 3. The combination, with the show-window A, of the ventilating-funnel F, entering the sill of the window, the air-pipe G, and an air-conduit D, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES S. FOOS.

Witnesses:

JAMES L. NORRIS,
A. H. NORRIS.