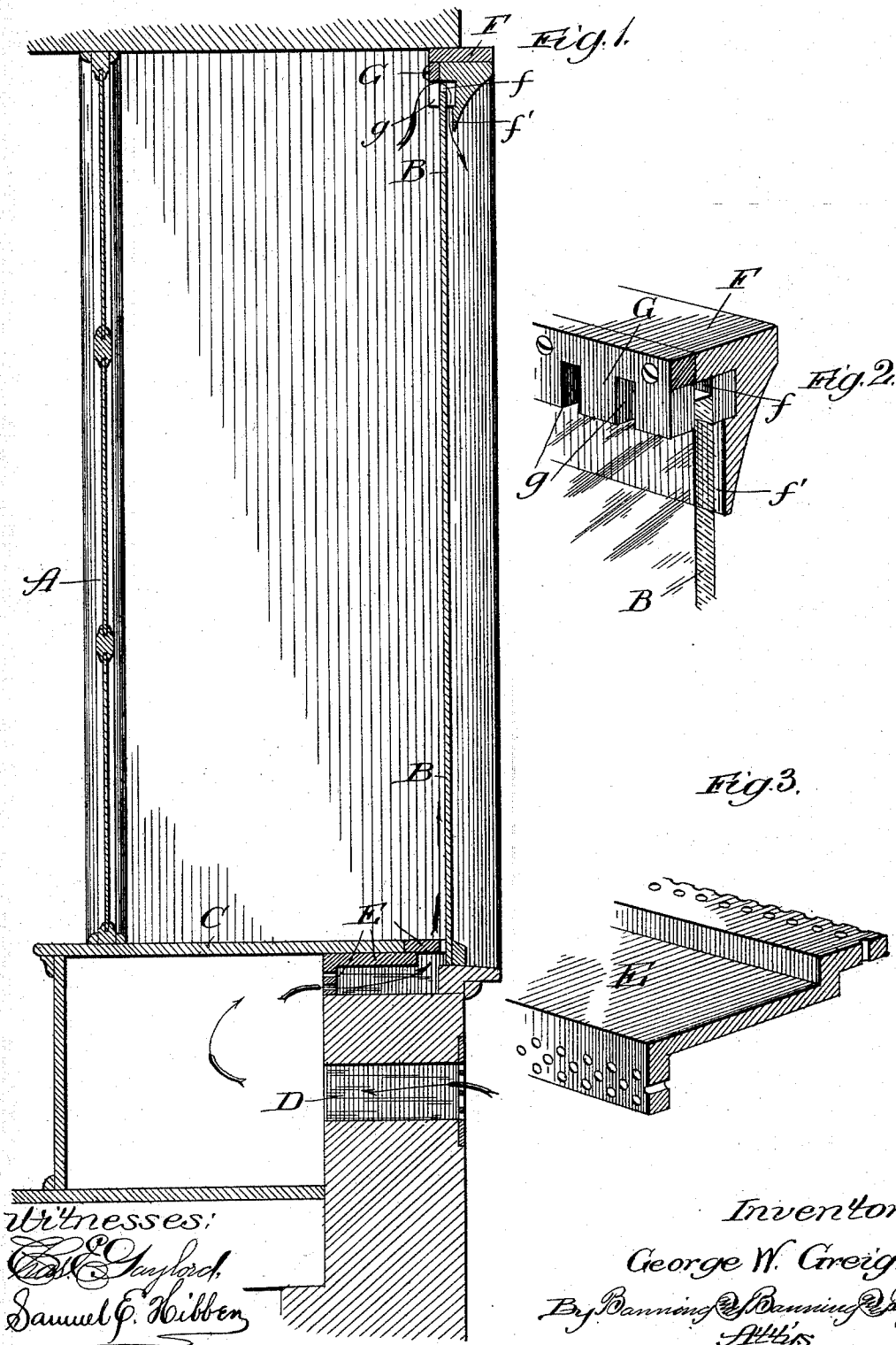


(No Model.)

G. W. GREIG.
WINDOW VENTILATOR.

No. 483,483.

Patented Sept. 27, 1892.



Witnesses:
E. C. Chaffin
Samuel E. Hibben

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Attys

UNITED STATES PATENT OFFICE.

GEORGE W. GREIG, OF CHICAGO, ILLINOIS.

WINDOW-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 483,483, dated September 27, 1892.

Application filed February 19, 1892. Serial No. 422,128. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. GREIG, a subject of the Queen of Great Britain, residing at Chicago, Illinois, have invented certain new and useful Improvements in Window-Ventilators, of which the following is a specification.

The object of my invention is to make a store show-window that will not have the outer window next to the street covered with frost or ice, so as to obstruct the view within; and my invention consists in the features and details of construction hereinafter described and claimed.

In the drawings, Figure 1 is a vertical transverse section through a store show-window. Fig. 2 is a perspective view of the upper fastening for the outside window-glass, and Fig. 3 is a perspective view of a ventilating-board used at the bottom of the outside window-glass.

In making store show-windows it is customary to cut off or separate the desired space from the main store-room by an inner partition A, which is usually made of framework with glass panes arranged in the same. The outside of the space is the street-window B, which is usually made of large plate glass, so as to present as fine and unobstructed a view of the interior as possible. The bottom of the space is provided with a floor C, usually arranged at about the height of the bottom of the outside window-glass, so that articles placed in the space will be held at a sufficient height to enable passers-by in the street to see them. It has been found, however, that the outside window-glass would become covered with steam, frost, or ice, so as to obscure and obstruct the view from the outside. This difficulty grew out of the fact that the space between the inner and outer windows was filled with air of a higher temperature than that on the outside, and fresh warm air would be admitted from the main store-room whenever the door was opened into the show-window. It is the object of my improvement to obviate and prevent this difficulty. To do this, I provide means for introducing air into the show-space from the outside, and causing it to constantly ascend in a volume or sheet within the outside window-glass, so as to keep the glass on the inside at as low a tempera-

ture as the glass on the outside, which will prevent steam settling on it for the formation of frost and ice. Beneath the floor C of the show-space the wall is provided with openings D, communicating with the atmosphere on the outside, so as to let air freely into the space beneath the floor. At the top of the wall and arranged to partly support the floor C, I place a ventilating-board E, which is particularly shown in Fig. 3. This ventilating-board is provided with holes, openings, or perforations into the space beneath the floor C, and also with holes, openings, or perforations into the show-space immediately within the outside window. These perforations or openings may be formed by fretwork or in any other desired way, as their object simply is to permit a free passage of air from the space beneath the floor C into the show-space along and adjacent to the inside of the outer window-glass. At the top of the outer window-glass is arranged a holding-cap F, which keeps the upper edge of the outer window-glass in place. This cap is fastened in place, so that it will be above the top of the window-pane, leaving a space *f*, and so that it will not touch the outside of the window-pane throughout its whole extent, leaving a space *f'* between the outside of the window-glass and the holding-cap. On the inside of the glass is a piece G, which may be screwed or otherwise fastened to the cap which serves to hold the glass in place. Spaces or openings *g* are arranged in this piece, so that they will communicate with the spaces *f* and *f'*, making a free passage for air from the inside over the top and down the outside of the window-glass. I have shown the cap as made of a solid piece; but it is obvious that it may be made of galvanized sheet metal or other material, so as to be hollow or solid, as preferred.

The air from the outside passes through the holes D into the space under the floor C. It then passes through the holes or openings in the ventilating-board, and up immediately on the inside of the outside window-glass, and up through the openings *g*, and out and down through the spaces *f f'*. The cold air, thus constantly passing from the outside and up along the inner surface of the outside window-glass, will form a sheet or body of cold air that will keep the temperature of the glass at sub-

stantially as low a temperature on the inside as on the outside, and thus prevent the accumulation of moisture or the formation of frost or ice on the glass.

5 What I regard as new, and desire to secure by Letters Patent, is—

In a store or show window, a ventilating-board having air-openings in its edge arranged immediately adjacent the surface and
10 above the lower edge of the glass, and a cap for holding the upper edge of the glass, pro-

vided with air-openings allowing the passage of air from the surface of the glass over and in contact with its edge, whereby a movement of the admitted external air along and immediately in contact with the surface of the glass is permitted, substantially as and for the purpose explained. 15

GEORGE W. GREIG.

Witnesses:

THOMAS A. BANNING,
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