

(No Model.)

2 Sheets—Sheet 1.

W. SCHARNWEBER.
VENTILATOR.

No. 329,680.

Patented Nov. 3, 1885.

Fig. 1.

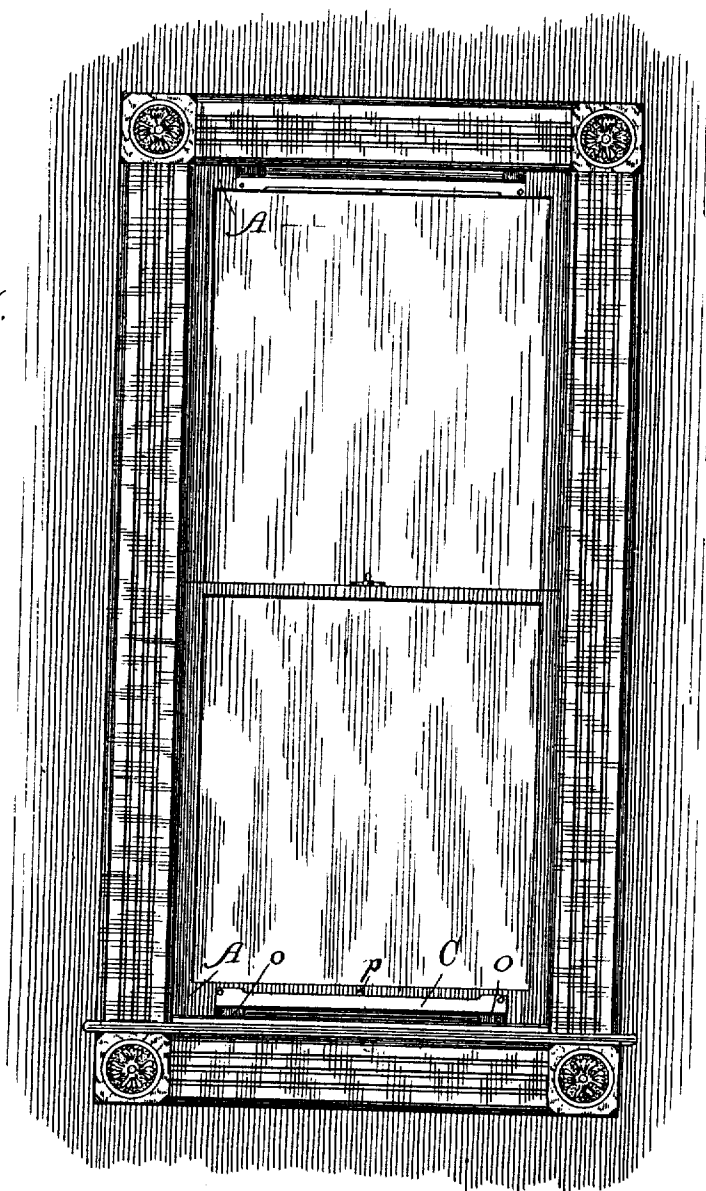
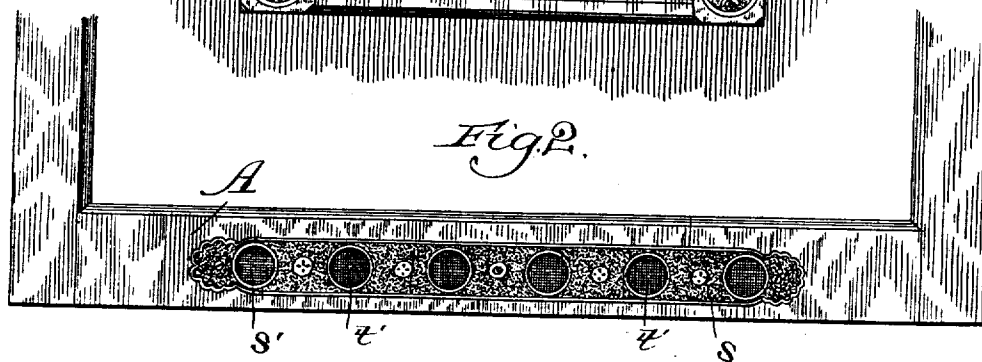


Fig. 2.



Witnesses:
Chas. Gaylord
Mason Bros.

Inventor:
William Scharnweber
By Dymond & Dymond
Attys

(No Model.)

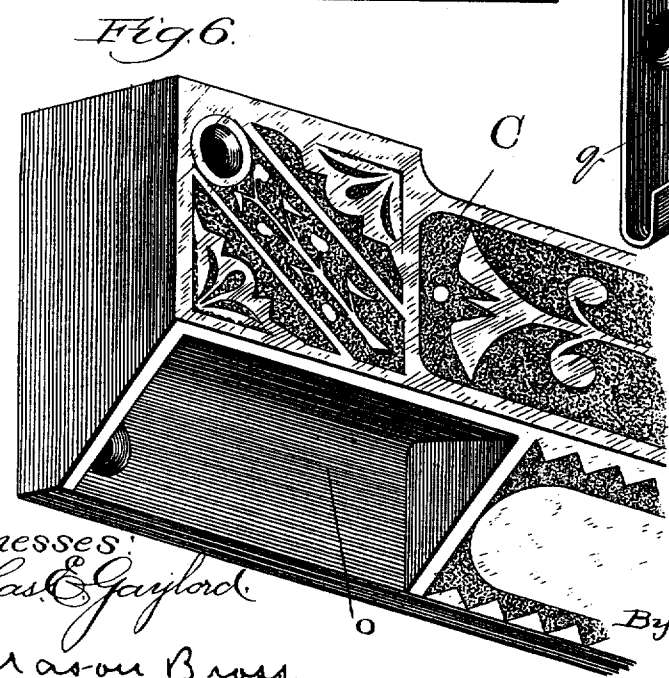
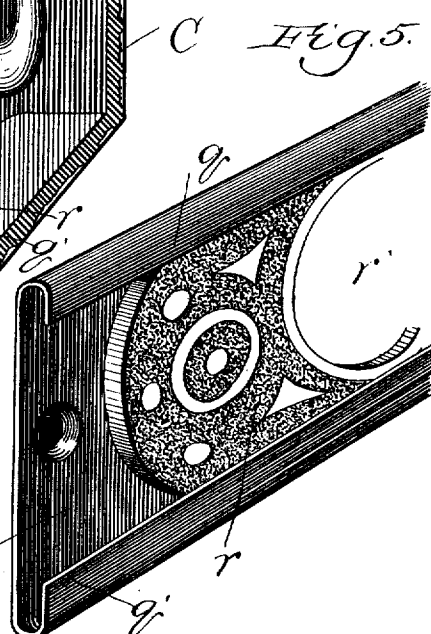
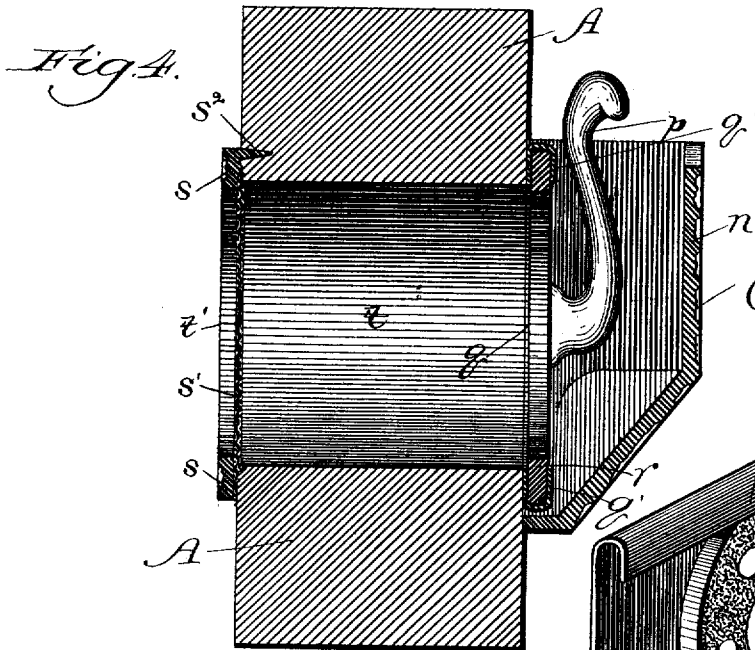
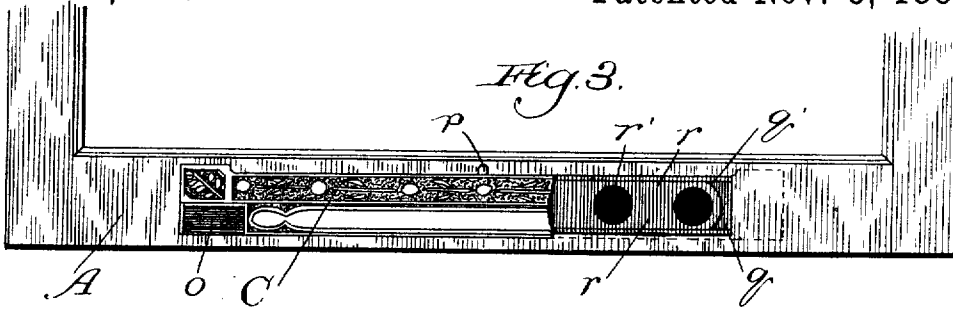
2 Sheets—Sheet 2.

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Inventor:
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 By *Dyrenforth & Dyrenforth*

UNITED STATES PATENT OFFICE.

WILLIAM SCHARNWEBER, OF JEFFERSON, ILLINOIS.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 329,680, dated November 3, 1885.

Application filed June 23, 1885. Serial No. 169,510. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SCHARNWEBER, a citizen of the United States, residing at Jefferson, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ventilators; and I hereby declare the following to be a full, clear, and exact description of the same.

The direct introduction of outside air into an apartment by means of the ventilators ordinarily provided for that purpose is not only the cause of much positive discomfort to the occupants, besides rendering them liable to the ill effects entailed by exposure to drafts, but is also in itself an insufficient and ineffective method of oxygenating a vitiated atmosphere, for the reason that when outside air is permitted direct entrance at a low level for purposes of ventilation it remains near the floor, since it is colder than the heated air contained within the apartment and of consequent greater specific gravity; hence it will not rise, and there is no general admixture with the heated vitiated atmosphere above it, and a satisfactory ventilation is not accomplished.

It is the object of my invention to provide for the ventilation of apartments, including particularly stores and cars, whereby the difficulties hereinbefore stated shall be obviated, and to afford a device whereby a controllable supply of fresh air shall be afforded to the occupants of the apartment in an efficient and convenient manner, and by means simpler, less costly, and of more tasteful appearance and attractive design than the devices generally at present in use.

To these ends my invention consists in means of peculiar construction for deflecting upward the current of fresh air as it enters from without, thus creating a suction toward it from all parts of the apartment, and causing it to be quickly and thoroughly admixed with the vitiated air, which it is designed to purify; and it also consists in the details of construction and combinations of parts shown and described in the accompanying drawings, in which—

Figure 1 represents in elevation an interior view of a window provided upon its lower and upper sashes with ventilators of my improved construction; Fig. 2, a view in elevation, showing from the exterior a broken portion of sash provided with my improvement; Fig. 3, a

similar interior view having parts broken away to display details; Fig. 4, a vertical cross-section of a sash having a ventilator affixed thereto; Fig. 5, a perspective view of a broken portion of the perforated sliding covering-plate and guide-plate, and Fig. 6 a similar view showing from the inside one end of my improved device.

A is a window-sash of common construction, (shown with its surrounding casement B in Fig. 1,) having holes *t* bored through a bar where it is desired to place the ventilator, and the holes *t* in the sash are coincident with openings *t'*, formed in a covering-plate, *s*, between which and the holes a strip of wire-gauze, *s'*, is interposed to prevent, when the sliding plate of the ventilator hereinafter described is open, entrance of dust and insects to the apartment within. The covering-plate *s* is provided upon its upper lateral edge with a sharpened projecting flange, *s''*, which, when the covering-plate is secured upon the bar of the sash A, enters the substance of the wood, thus preventing rain or water used in cleaning the window from percolating within the covering-plate and thence gaining entrance to the apartment. A sliding plate, *r*, provided with openings *r'*, affords at will controllable communication with the external air, and moves within guides *q'*, formed by a sheet-metal plate, *q*, affixed to the interior of the sash, and also provided with openings coincident with the holes *t* and openings *t'*. A handle, *p*, formed upon the sliding plate *r* affords a convenient means of sliding the latter. A guard or shield, C, is secured to the sash covering the interior features of the device in the manner hereinafter described, and preventing direct entrance of outside air to the apartment. A recess, *o*, is formed in the shield C either at a central point or preferably, as shown, at each extremity, and affords firm and convenient thumb-pieces to permit a window to be raised without the annoyance and inconvenience to the operator of manipulating it by the upper sash. The shield C is affixed to the sash to cover the ventilating portion of the device in such a position that its lower edge closely approaches the sliding plate *r*, while its vertical portion *u*, Fig. 4, is formed to lie parallel with the sash and at a distance from it which it is found will best permit en-

trance and deflection at a right angle of outside air, preferably about three-fourths of an inch. The handle *p*, projecting somewhat above the upper edge of the shield C, permits control, as hereinbefore stated, of the sliding plate *r*, whereby, when the openings *r'* are in line with the holes *t* in the sash and openings *t'* in the covering-plate *s*, fresh air is permitted unobstructed entrance to the apartment, being deflected upward by the vertical portion *u* of the shield C, in order that the desired objects hereinbefore described may be attained. Of course the supply of air may be regulated at will by means of the sliding plate *r*, or, if desired, completely shut off by sliding the plate into such a position that the openings communicating with the external air are closed.

My device is of especial importance when applied to the ventilation of the show-windows of stores. When used for this purpose, two of my improved ventilators preferably are employed—one, as usual, upon the lower sash, and another opening downward, as shown in Fig. 1, upon the upper sash, which permits the entering currents of cold air to escape and approach each other, and, being kept in close contact with the window by reason of the deflecting-shields C, the cold-air current prevents gathering of moisture upon the glass and the

consequent formation of frost, thus keeping the windows unobstructed to the view of passers by, and permitting the desired display of merchandise within the windows.

A very important application of my device, and one in which it is at the present time successfully employed, is that to the lower parts of doors instead of windows, and such application affords particular advantages where the doorways are unprovided with transoms.

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

A ventilator comprising, in combination with a window-sash, door, or the like, provided with one or more openings leading from the external atmosphere into an apartment, a shield, C, secured over the said opening or openings, and entirely open at its upper side, whereby the volume of air may escape from the shield without obstruction of the current, and means, substantially as described, within the said shield to control the supply of air through the said opening or openings, as set forth.

WILLIAM SCHARNWEBER.

In presence of—
HENRY N. MANN,
MASON BROSS.