L. D. HARVEY.

VENTILATORS IN THE WINDOWS OF BUILDINGS.

No. 193,948. Patented Aug. 7, 1877

Fig. 2.

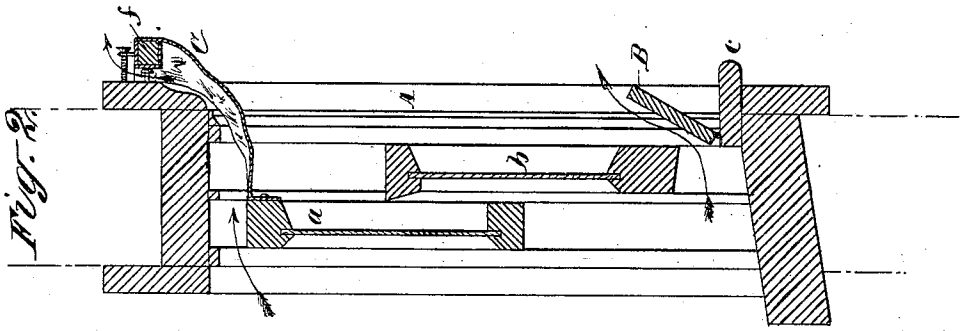
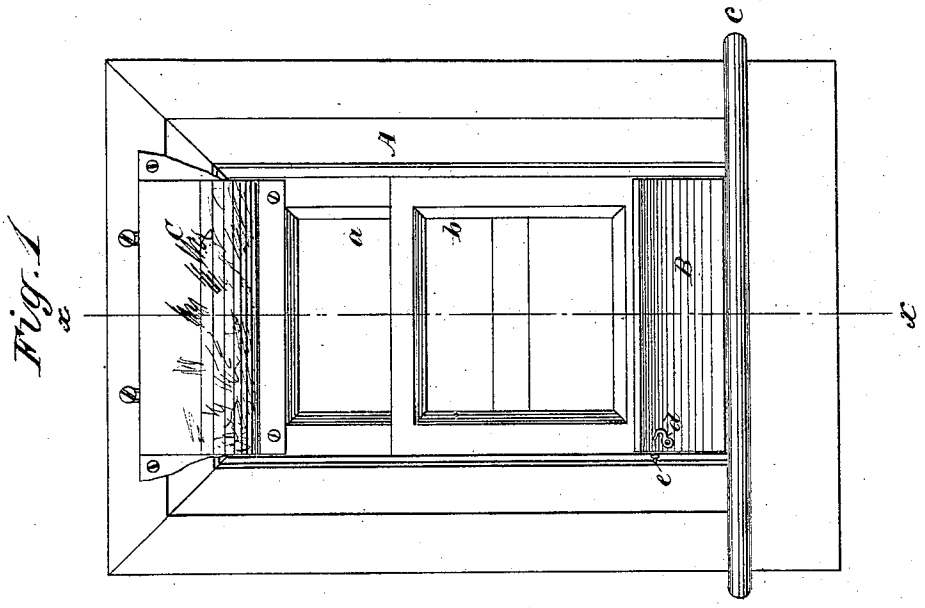


Fig. 1.



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LORENZO D. HARVEY, OF SHEBOYGAN, ASSIGNOR TO HIMSELF AND E. J. STEWART, OF GENESEE, WISCONSIN.

IMPROVEMENT IN VENTILATORS IN THE WINDOWS OF BUILDINGS.

Specification forming part of Letters Patent No. **193,948**, dated August 7, 1877; application filed March 24, 1877.

To all whom it may concern:

Be it known that I, LORENZO DOW HARVEY, of Sheboygan, Sheboygan county, Wisconsin, have invented a new and Improved Ventilator, of which the following is a specification:

Figure 1 is a front elevation, and Fig. 2 is a vertical section on line *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention consists in hinging a deflector to the sill of a window, which, when the window is open, directs the inrushing current of air toward the ceiling.

It also consists in applying a flexible deflector to the upper rail of a window-sash and to the window-casing, to direct the current of air admitted through the upper portion of the window toward the ceiling.

In the drawing, A is an ordinary window-frame containing the sash *a b*, and *c* is the window-sill, to which is hinged a deflector, B, consisting of a board, which is fitted between the jambs of the window-frame, and is of any desirable width. A hook, *d*, is attached to the said board, which engages a pin, *e*, that projects from the window-casing, for holding the deflector at any desired inclination.

When not in use the deflector lies upon the window-sill.

When the lower sash is raised the inrushing current of air is directed toward the ceiling by the deflector, where it unites with the warmer portion of the air in the apartment, and becomes tempered before coming into contact with the persons in the room.

At the upper portion of the window a deflector, C, consisting of a piece of cloth or other flexible material, is attached to the upper sash *a*, and to a strip of wood, *f*, that is suspended in front of the upper portion of the window-casing, and is separated from it a short distance to permit of the passage of air. The edges of the deflector C are folded in, so as to prevent the air from escaping laterally. The upper corners of the deflector are tacked to the window-casing for the same purpose.

When the upper window-sash is drawn down so as to admit air, the inflowing current is directed upward, as in the other case. The flexibility of the deflector permits the required latitude of motion in the upper window-sash.

The advantages of this plan of ventilation are obvious. Drafts are avoided, while thorough and complete ventilation is secured.

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

The flexible deflector C, having the supporting-strip *f*, in combination with the frame and upper sash of a window, substantially as shown and described.

LORENZO DOW HARVEY.

Witnesses:

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