

P. MIHAN.

VENTILATOR FOR WINDOWS.

No. 171,682.

Patented Jan. 4, 1876.

Fig 1

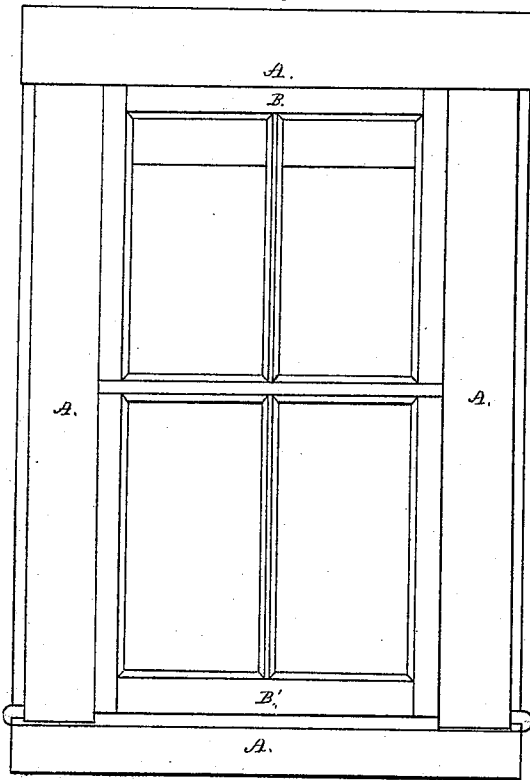


Fig 2.

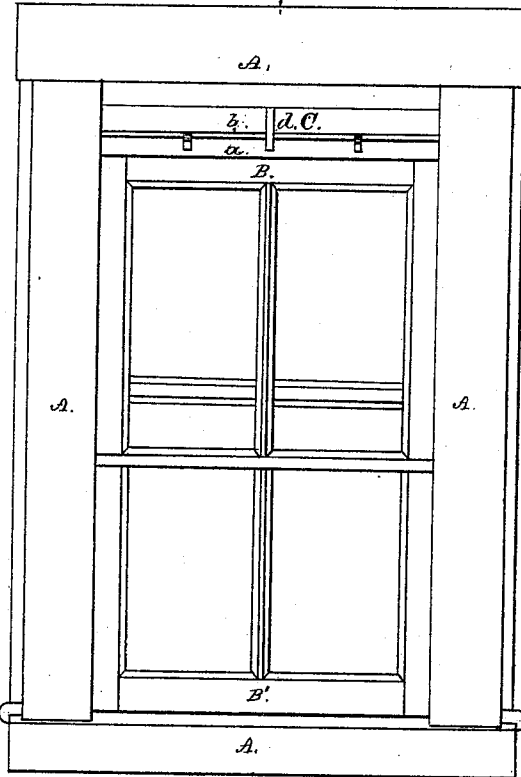


Fig 3.

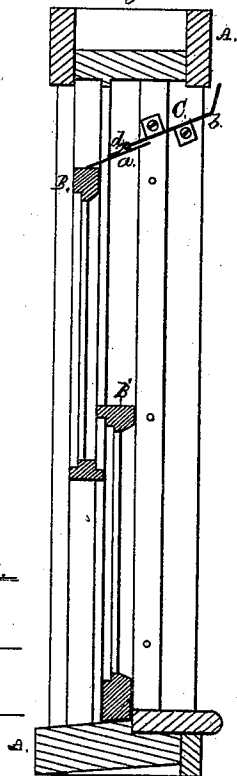
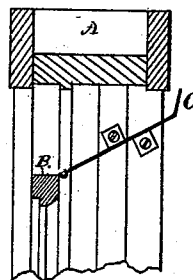


Fig 4.



Witnesses.

Geo. Gray
J. C. Hale.

Patrick Mihan.

by his attorney
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UNITED STATES PATENT OFFICE.

PATRICK MIHAN, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN VENTILATORS FOR WINDOWS.

Specification forming part of Letters Patent No. **171,682**, dated January 4, 1876; application filed October 14, 1875.

To all whom it may concern:

Be it known that I, PATRICK MIHAN, of Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented a new and useful Ventilator, or device to be applied to a window for ventilating a room or apartment; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

In the said drawing, Figure 1 is a front (outside) elevation of a window provided with my invention, the same representing the window as closed and the ventilator not in operation. Fig. 2 is a similar view, showing the window as partially open and the ventilator in operation. Fig. 3 is a central vertical and transverse section taken on line *xx* of Fig. 2, and representing the parts in the position as shown in said latter figure.

The object of my invention is to provide a simple, cheap, and effective device, and one which can be readily applied to a window, for the purpose of ventilating a room or apartment; and my invention consists in the peculiar construction and arrangement of the parts of the said device, and its application to a window-frame and window, as hereinafter described and claimed.

In the said drawing, A A denote the window-frame, and B B' the upper and lower sashes. Within the upper part of the window-frame, and attached to opposite sides thereof, is an upwardly-inclined metallic plate, C. This plate extends beyond the inner face of the frame, and is there curved upward, so as to cause the currents of air entering between the top of the window-frame and the said plate, to be deflected upward toward the ceiling of the room. This plate I make in two sections, *a b*, the part *a* being movable and hinged to the part *b*, such part *a* having a width sufficient to lap upon the top rail of the upper sash when the latter is lowered, as shown in Figs. 2 and 3, the same serving to cover the joint formed with the sash, and thus convey away any rain or water that may be driven into the ventilator to the outside of

the sash, while such hinged portion also enables the sash to be either raised or lowered without obstructing or impeding its movement. *d* is a flat curved spring, one end of which is secured to the top of the stationary part *b* of the ventilator, its other or free end impinging against the part *a*, the object of such spring being to maintain the part *a* in impingement with the sash at all points within the limits of movement of the former.

This ventilator is to be arranged at a short distance below the upper bar of the window-frame, and at such an angle of inclination therewith that when opened to its greatest extent, as shown, Figs. 2 and 3, it will allow the maximum amount of air desired to enter the room, while, by simply raising the upper sash more or less, the amount of air admitted may be regulated with the greatest nicety.

I would remark that the spring *d* may be dispensed with, by simply giving to the part *a* such weight that it will fall by its own gravity.

In some instances I make the curved plate C of a single piece, in which case I make the rear edge thereof to stand in the same vertical plane with the adjacent face of the sash, so that, as the latter is moved either upward or downward, it shall impinge against the edge of the ventilator or plate C, the same being as shown in Fig. 4; but I prefer to make same in two parts, as before described.

From the above it will be seen that, by my construction of the ventilator and its application to the window of a room, the currents of air, as they enter the room, are prevented from that downward rush which so often occurs when a window (unprovided with a ventilator) is open at its top, and which have such deleterious effects, especially in sleeping-rooms, my invention causing the inflowing air to be deflected upward toward the ceiling, from whence it descends almost imperceptibly by its own gravity.

I do not claim the invention as shown and described in Letters Patent No. 106,940, nor that found in Patent No. 150,463, as my invention differs both in construction and arrangement from either of them.

Having described my invention, what I claim is—

1. The ventilator consisting of the single curved plate *C*, arranged at or near the top of the window, as shown and described, to operate with the upper sash thereof, as and for the purpose set forth.

2. The ventilator composed of two sections, *a b*, hinged together, as stated, in combination with a window-frame and window, substantially as shown and described.

3. The combination, with the ventilator com-

posed of two parts, *a b*, hinged together, as stated, of the spring *d*, as and for the purpose set forth.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

PATRICK MIHAN.

Witnesses:

F. P. HALE,

F. C. HALE.