P. MIHAN.

VENTILATOR.

No. 186,052. Patented Jan. 9, 1877.

Fig. 1.

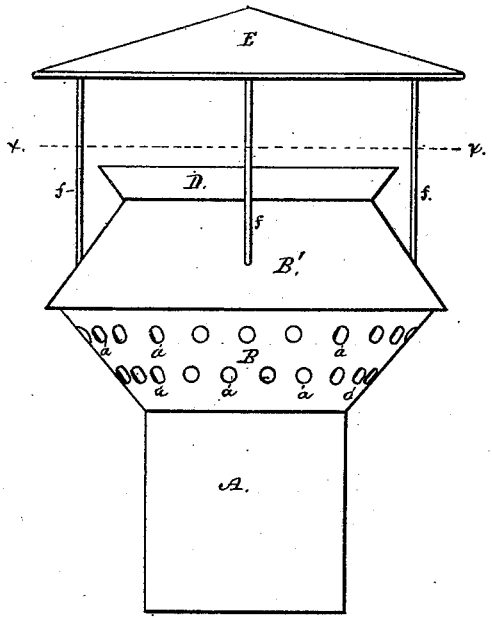


Fig. 2.

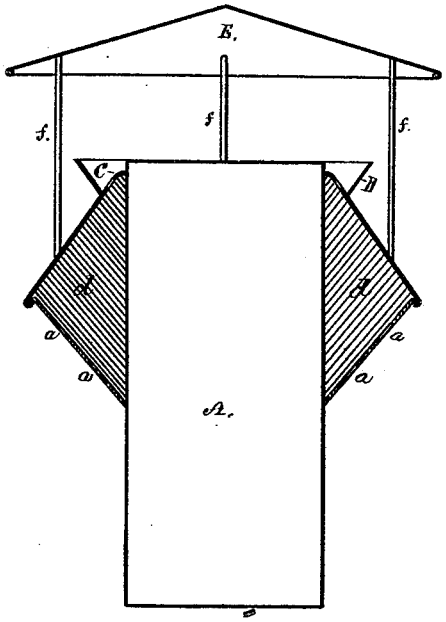
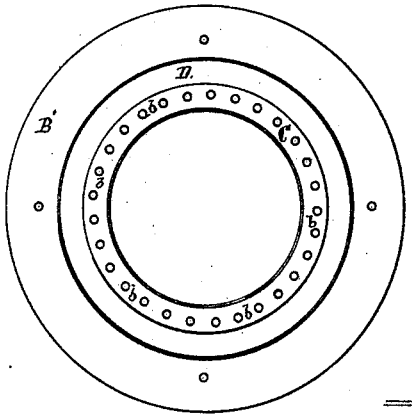


Fig. 3.



Witnesses.

Geo Gray

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UNITED STATES PATENT OFFICE.

PATRICK MIHAN, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN VENTILATORS.

Specification forming part of Letters Patent No. **186,052**, dated January 9, 1877; application filed March 28, 1876.

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 certain new and useful Improvements in Ventilators; 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 such drawing, Figure 1 denotes a side elevation, and Fig. 2 a vertical and central section, of a ventilator constructed in accordance with my invention. Fig. 3 is a transverse section taken on the line *x x* of Fig. 1.

My invention has reference to that class of devices applied to the tops of chimneys and ventiducts, in order to increase the draft or provide a better ventilation of the building; and my invention consists in the peculiar construction and arrangement of the parts, as hereinafted described and claimed.

In the said drawing, A denotes the main ventilator or exhaust pipe, which is to be fixed to the top of the building or structure to be ventilated. B B′ are two hollow truncated cones or conic frusta, which are disposed around the pipe A, such frusta being united at their larger bases, the part B being furnished with one or more series of openings, *a*, extending entirely around the same, such part at its lower end being closed and soldered, or otherwise firmly affixed to the pipe A, and thereby affording a support, on which to rest the upper parts of the ventilator. In order to render the ventilator more strong and durable, I employ an annular plate or ring, C, whose outer perimeter is connected with the upper end of the frustum B′, its inner perimeter being soldered or firmly secured to the pipe just below its eduction end. This plate is formed with a series of perforations, *b*, extending entirely around it, in order to allow the air entering the part B to escape through the orifices *b b*, such plate C serving to hold the frustum B′ in firm connection with the pipe A, and thereby render the parts more firm and stable, so as to withstand the action of high winds, or instead of the plate C the upper part of the frustum B′ may extend up so as to impinge against and be soldered, or otherwise properly secured, to the pipe A, the series of perforations *b b* being formed in such extended part of the frustum B′. *d d* are series of vertical partitions disposed within the chamber of the parts B B′, such serving to divide the said chamber into separate air-passages, by which the currents of air are prevented from horizontal or lateral deflections, such partitions also serving to increase the firmness of the structure. D is a guard, which is affixed to the frustum B′ at or near its top, such guard flaring outwardly and extending a short distance above the eduction end of the pipe A, such guard extending around the series of holes *b b*, &c., and serving to diminish the outside pressure of the external air upon the currents rising through the orifices *b* as well as upon the eduction end of the pipe A, whereby the air issuing from such orifices and pipe is allowed greater freedom of expansion, and thereby more readily escapes through the opening beneath the dome. E is the dome or deflecting cap, which is supported upon rods *f f* affixed at their lower ends to the lower frustum B.

Having described my invention, what I claim is—

1. The combination, with the pipe A, of the frustum B′, provided with the perforated top or annular plate C, as and for the purpose set forth.

2. In a ventilator, substantially as described, the combination, with the pipe A and the frustum B, of the frustum B′ provided with an annular perforated top or plate C, and the guard D, the whole being constructed, combined, and arranged as and for the purpose set forth.

3. The improved ventilator, as described, consisting of the pipe A, the frusta B B′, the guard D, and dome E, constructed, combined, and arranged substantially as 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.