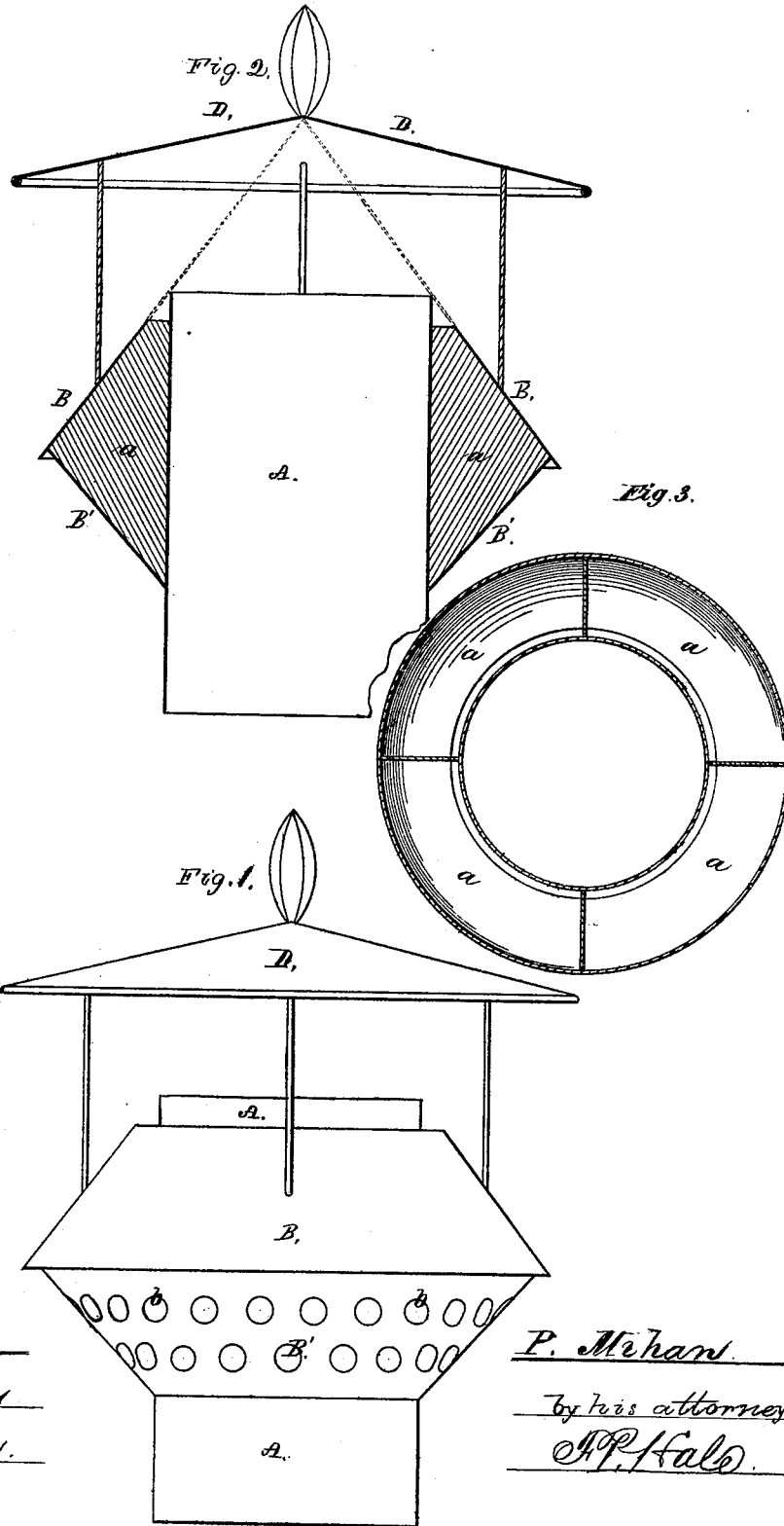


P. MIHAN.  
VENTILATOR.

No. 189,376.

Patented April 10, 1877.



Witnesses.

Geo Gray  
J. S. Hale.

P. Mihan.

by his attorney

J. P. Hale.

# UNITED STATES PATENT OFFICE.

PATRICK MIHAN, OF CAMBRIDGEPORT, MASSACHUSETTS.

## IMPROVEMENT IN VENTILATORS.

Specification forming part of Letters Patent No. **189,376**, dated April 10, 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 a new and useful Improvement 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 is an elevation, and Fig. 2 a vertical and longitudinal section, of a ventilator embodying my improvement.

In my present invention, as in the one for which Letters Patent were granted to me on the 6th day of July, 1875, I employ a dome or cap, and a main ventilating or exhaust pipe, circumscribed by two conic frusta, united at their greater bases, such frusta being provided with vertical partitions, the lower one of such frusta being perforated, and at its lower end closed, and connected with the exterior of the main pipe, the said parts being constructed as shown in such patent; but instead of employing therewith the conic frusta, termed the "storm-guard," as therein shown, I dispense with the same, as I have found that the combination of the dome with the conic frusta B B', constructed and arranged, with respect to the eduction end of the main pipe, as shown, produces a ventilator of great practical value; and, therefore, my present invention consists in the combination of the dome or cap, the main ventilating-pipe, and the conic frusta, under the peculiar construction and arrangement of the parts as described and shown.

In the said drawing, A denotes the main ventilating or exhaust pipe; B and B', two conic frusta, disposed around the said pipe and united at their greater bases, the upper frustum, B, being open at top, and the lower one, B', closed at its lower end, by soldering

or otherwise suitably connecting it to the exterior of the pipe A. The space between the frusta and the main pipe is divided into separate chambers or flues by means of four or any other desirable number of vertical partitions, *a*.

The frustum B' has series of holes *b b'*, &c., extending horizontally around it, through which external currents of air are received into the chambers, the partitions serving to prevent the air from escaping laterally through the holes opposite the ones they entered, as they would were the frusta unprovided with such partitions, and as the lower end of the inferior frusta is closed, the entering currents, being thus prevented from rushing downward, must of necessity be forced upward around the eduction end of the main pipe.

The pipe A has its eduction end disposed at some distance above the superior end of the frustum B.

D is the dome or cap, which has a greater diameter than the frusta, and is supported upon four or any other suitable number of rods extending up from the frustum B. This dome I prefer to arrange at such an altitude above the conic frusta B that the apex of the cone, if produced, would be at or near the axis or crown of the dome; and the eduction end of the pipe is extended to such a distance above the upper end of the frusta B as to meet the sides of the cone thus produced, the same being as shown by dotted lines in Fig. 2.

Having described my invention, what I claim is—

The combination of the main ventilating-pipe A, the conic frusta B B', and dome, when the parts are constructed and relatively arranged as shown and described.

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.