P. MIHAN.

Ventilator for Chimneys.

No. 168,169. Patented Sept. 28, 1875.

Fig. 1.

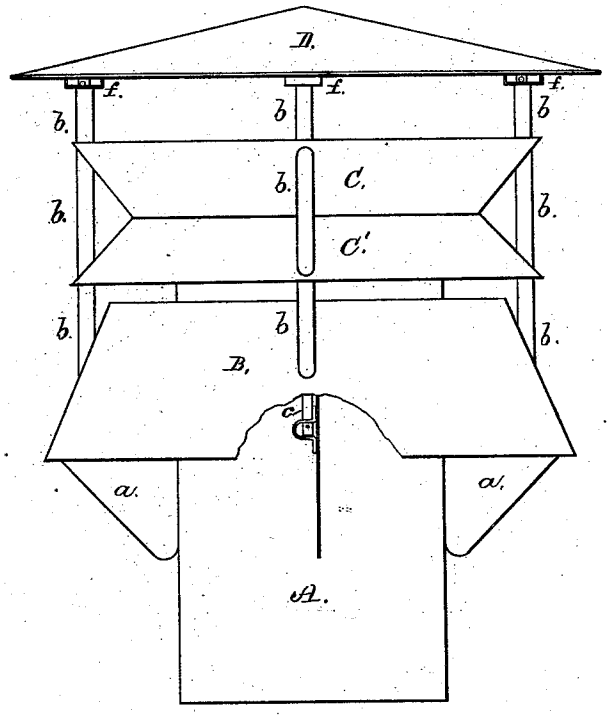
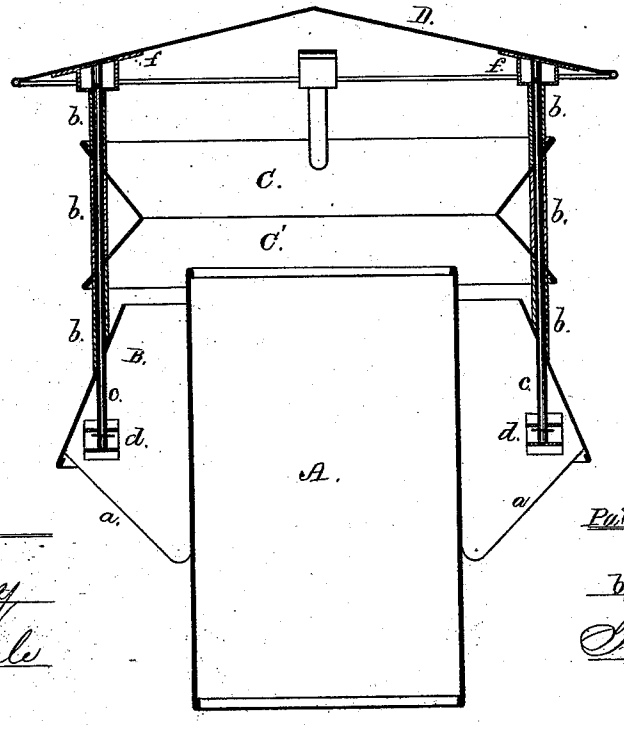


Fig. 2



Witnesses.

Geo. Gray

F. G. Hale

Patrick Mihan.

by his attorney.

A. P. Hale

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PATRICK MIHAN, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN VENTILATORS FOR CHIMNEYS.

Specification forming part of Letters Patent No. **168,169**, dated September 28, 1875; application filed July 3, 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 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 said drawing, Figure 1 is a side elevation of a ventilator constructed in accordance with my invention; Fig. 2, a vertical section of the same taken through two of the posts supporting the dome and storm-guard.

My present invention may be said to be an improvement upon that for which I filed an application for a patent on March 11, 1875.

In my present invention, as in the one referred to, I employ the dome and the storm-guard under a similar construction and arrangement with respect to each other and the main ventilating-pipe; but, instead of employing the lower double conic frustum shown in such former application, I dispense with the lower part of the same, and support the upper portion on radial braces extending from the outer surface of the pipe A, my present invention being designed for the smaller class of ventilators, it having been found that in the ventilators of small diameter, if constructed with the double conic frustum, the currents of air entering therein are not sufficient to give the desired action. To remedy this I employ with the dome, the storm-guard, and the ventilating-pipe, a single conic frustum, having its wider base downward and open, so that the currents or volume of air may freely enter therein.

In the drawing, A denotes the main ventilating-pipe. B is the conic frustum, which is disposed concentrically around the pipe A, and being open at both top and bottom, its upper end terminating at a short distance below the upper or eduction end of the pipe A. This frustum is supported on vertical radial braces *a a*, &c., extending from the exterior of the said pipe. Above the frustum B is the storm-guard, which consists of two truncated cones, C C′, united at their lesser bases, the plane of their junction being at a distance above the eduction end of the pipe A equal to that of the frustum B below the same. D is the dome, the same being disposed over the frustum C, and having a diameter greater than that of the conic frusta.

The dome and the storm-guard are supported and maintained in their relative positions, with respect to each other, the pipe A, and frustum B, by means of short sectional sleeves *b b*, &c., disposed on four or any other desirable number of rods, *e*, which are supported at their lower ends upon ears or brackets *d*, soldered or otherwise suitably secured to the radial partitions or braces *a* before mentioned. These rods *c* extend up through holes of a corresponding diameter made through the frustum B, the storm-guard C C′, and terminate in brackets *f f*, disposed on the under surface of the dome, the latter, at the points of impingement of the several rods, being strengthened by a metallic plate affixed thereto. Each of the sectional sleeves is of such length and cut, with such a taper or form, as to correspond with the surface against which it is to impinge. The sectional sleeves thus formed, with each two contiguous sections abutting against opposite sides of the plate through which the rod passes, serve as clamps to hold the parts in their normal position. The rods *c* have their ends secured to the dome and to the radial supporting-plates by means of pins passing through the rods and the curved brackets in which they rest, as shown in Fig. 2.

By this construction the parts of the ventilator cannot only be readily put together, but can be packed in a small compass for transportation.

Having described my invention, what I claim is—

1. In a ventilator, substantially as described, the pipe A, frustum B, double conic frustum C C′, and dome D, constructed, arranged, and combined together as shown.

2. In a ventilator, substantially as described, the combination, with the dome, storm-guard, and frustum B, of the rod *c*, provided with sleeves *d*, as and for the purpose set forth.

PATRICK MIHAN.

Witnesses:
F. C. HALE,
F. P. HALE.