

J. PURINGTON.  
Ventilators.

No. 150,711.

Patented May 12, 1874.

Fig. 1.

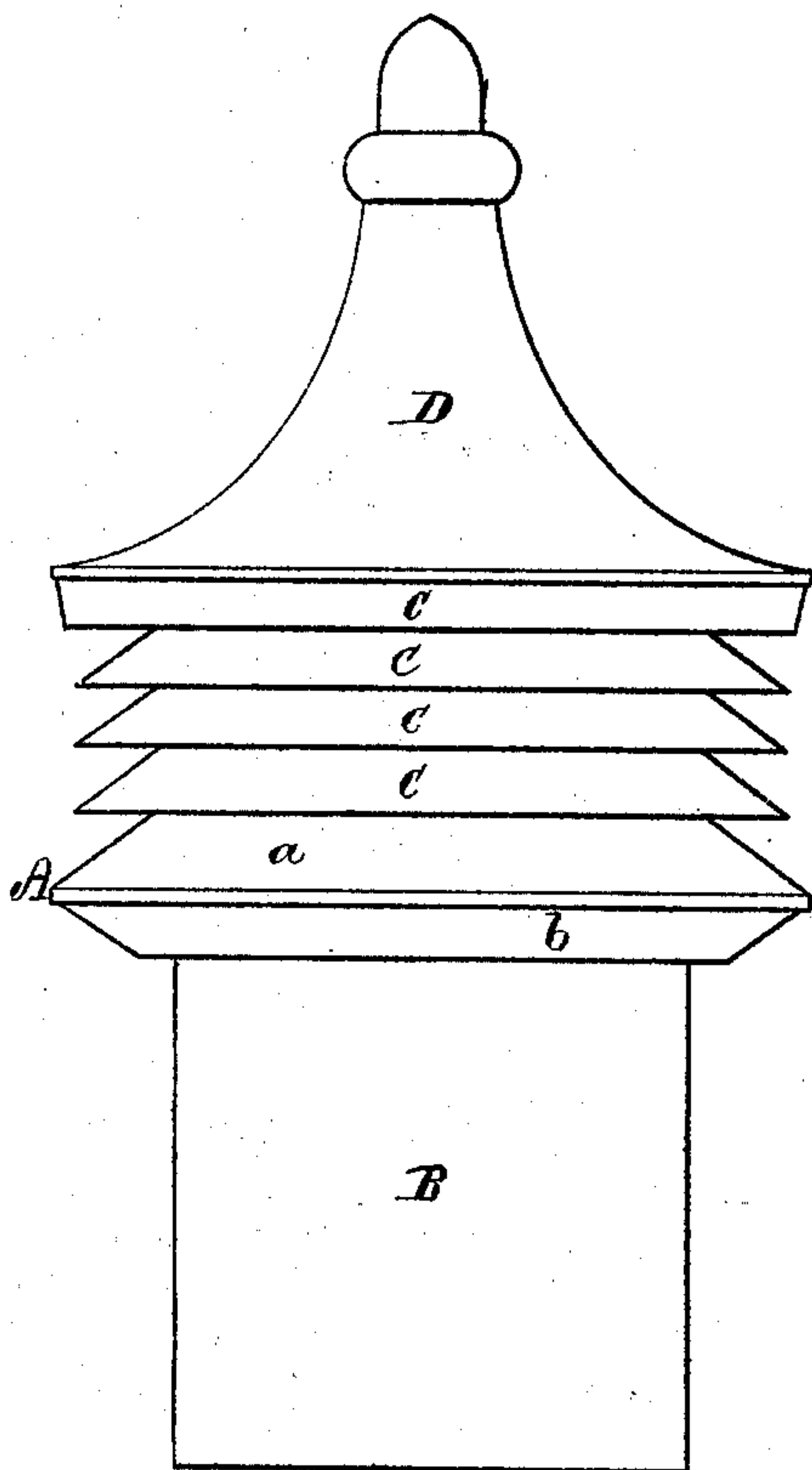
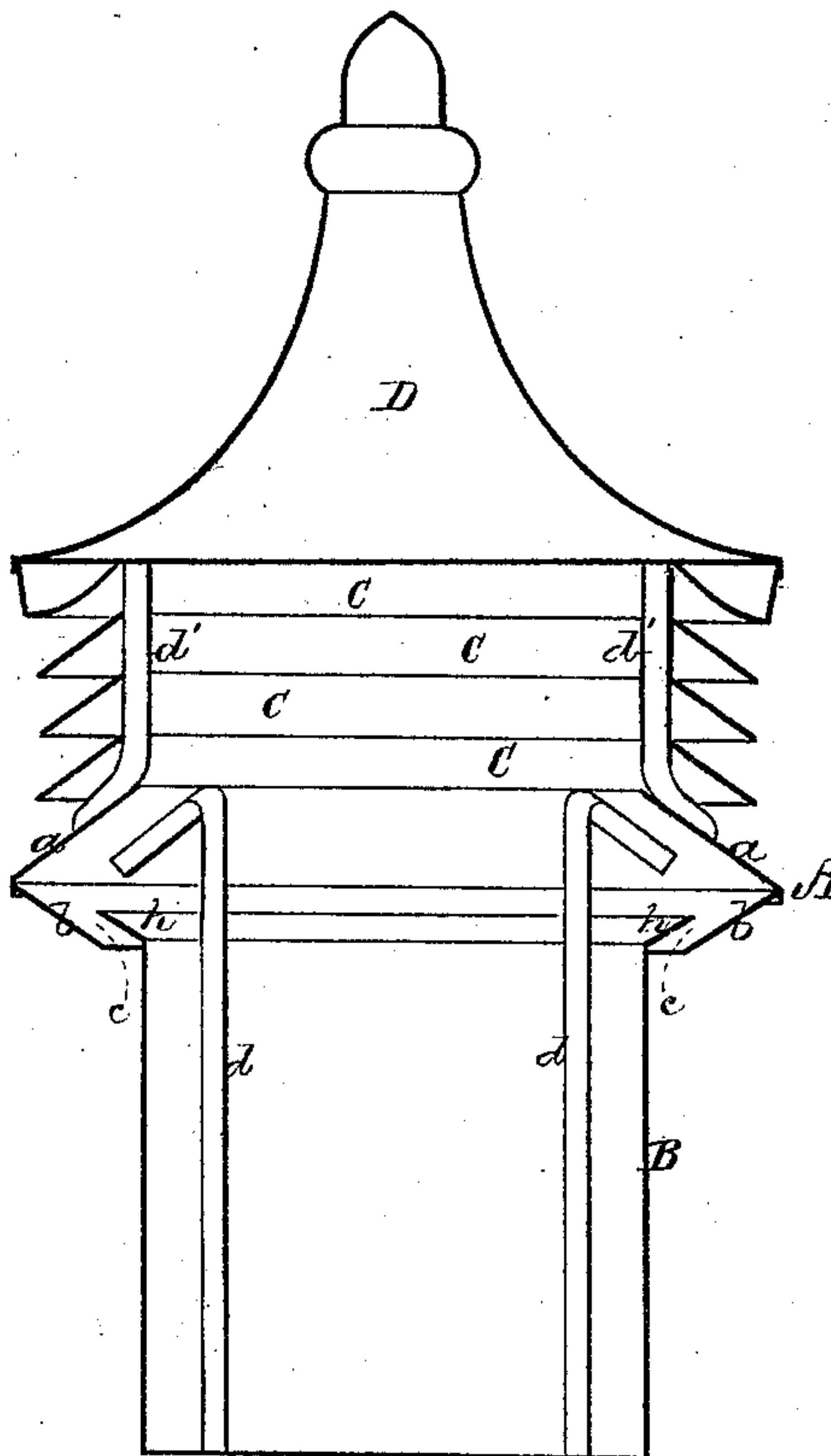


Fig. 2.



Witnesses.

*S. W. Piper.*

*L. N. Miller.*

John Purington.

by his attorney

*R. H. Day*

# UNITED STATES PATENT OFFICE.

JOHN PURINGTON, OF WAKEFIELD, MASSACHUSETTS.

## IMPROVEMENT IN VENTILATORS.

Specification forming part of Letters Patent No. 150,711, dated May 12, 1874; application filed March 11, 1874.

*To all whom it may concern:*

Be it known that I, JOHN PURINGTON, of Wakefield, of the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Ventilators; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a side elevation, and Fig. 2 a vertical section, of a ventilator provided with my invention.

In this ventilator the base portion A is composed of two hollow conic frustums, *a b*, united at their larger bases and arranged, as shown, relatively to the flue or ventilating-educt B, which is flared at top, as shown at *h h*. This duplex base has its lower opening larger in diameter than the pipe B, there being an annular space or opening, C, between the two. The duplex or double reflecting base is supported by a series of rods, *d d*, extending up from the pipe B. Immediately over the base is a number of hollow conic frustums or blinds, C C C, arranged one over the other at equal or suitable distances apart, and surmounted by a deflecting cap, D, shaped as shown, the blinds and cap being supported by a series of rods, *d' d'*, to which they are fixed, such rods being extended up from the base A, and all being arranged as represented.

When the ventilator so made is struck by a current of wind moving horizontally, or about so, part of the current will pass into the ventilator at one side of it through the spaces between the blinds, and, being deflected upward and striking the bottom of the cap, will be deflected downward, and will pass out through the opposite side of the ventilator, between the blinds. The part of the current that may impinge against the outer surface of the lower frustum of the double base, will be deflected

downward, so as to induce a downward current, through the base or the annular space *c*, between it and the pipe surrounded by it. The action of the wind on the ventilator will be such as to induce a current up through the pipe, and such current to be divided so that a portion of it will escape to the leeward between the blinds, and the remainder will pass to the windward through the duplex base. This, in practice, has been found to take place with the ventilator arranged on either a chimney or an air-flue.

I would remark that the ventilator, instead of being circular in horizontal section, may be polygonal.

In whatever direction an external current of wind may impinge against the ventilator, it rarely, if ever, will fail to produce an upward current in the pipe or flue.

I do not claim three deflecting hollow frustums arranged together and with a pipe and cap, as shown in the United States patent No. 82,497 to Currier, as in my ventilator the frustum or flare *h* is placed within the lower frustum *b*, whereby the action of the air on the frustum is productive of a different effect from what results with Currier's frustum; nor do I claim blinds or deflectors, pipes, and frustums arranged as shown in either of the patents 86,809, 10,232.

I claim—

The combination of the deflecting cap D, the series of hollow conic frustums or blinds C, and the frustums *a b h*, all arranged and applied together and to the tube B, substantially as shown and described.

JOHN PURINGTON.

Witnesses:

R. H. EDDY,  
J. R. SNOW.