J. J. CURRIER.

Chimney Cowl.

No. 82,497. Patented Sept. 29, 1868.

Fig. 1.

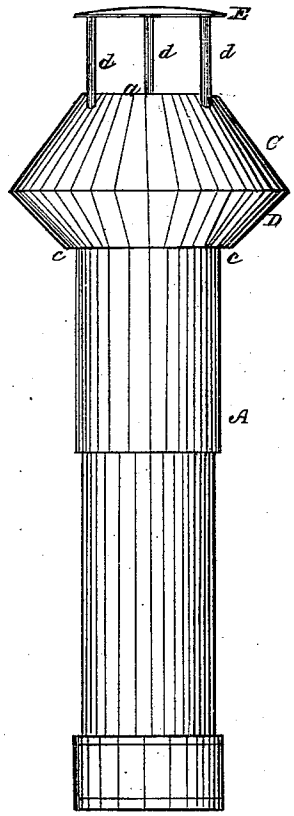
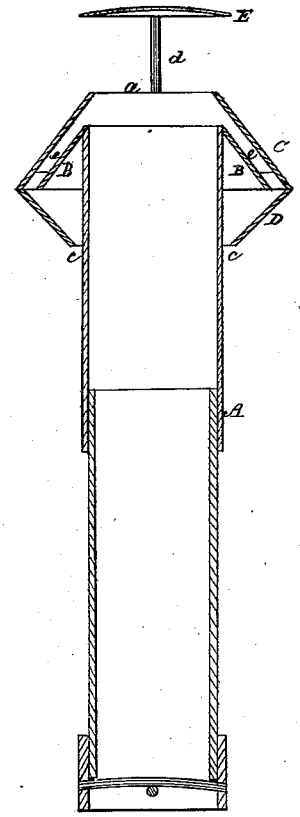


Fig 2



Witnesses

S. N. Piper

J. R. Snow

John J. Currier.

by his attorney

R. H. Eddy.

United States Patent Office.

JOHN J. CURRIER, OF GLOUCESTER, MASSACHUSETTS.

Letters Patent No. 82,497, *dated September* 29, 1868.

IMPROVEMENT IN CHIMNEY-COWLS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME:

Be it known that I, JOHN J. CURRIER, of Gloucester, in the county of Essex, and State of Massachusetts, have invented a new and useful Ventilator or Chimney-Cap; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, and

Figure 2 a vertical section of it.

In such drawings, A denotes a conduit or tube, open at each end, and having a hollow conical frustum, B, extended downward from its upper end, and arranged concentrically with respect to the said tube, the said frustum, at its smaller base, being fastened to the tube A, and corresponding in diameter with the top of the said tube. Above, and concentric with the said frustum B, is another hollow conic frustum, C, there being a space, *e*, between the two, entirely around the frustum B. The said frustum C is open at its upper end, as shown at *a*, and above the said opening a horizontal disk or cover, E, is arranged, it being supported by a series of posts or rods, *d*, extending up from the frustum C.

At its larger base or lower edge the frustum C is united to the larger base of another such frustum, D, which is inverted, extends below the frustum C, and encompasses the tube A, and at its lower end has a diameter larger than that of the tube A, in order that there may be an annular opening or passage, *c*, between the lower edge of the frustum D and the outer surface of the tube.

The slope of the side of each frustum I generally arrange at an angle of forty-five degrees with the axis of the tube.

Without the frustum or guard B, arranged with respect to the tube A, the frusta C D, and the cover-plate E, arranged together as described, it frequently happens that a current of wind, while passing across or through the ventilator, will be so met by a counter-current, induced through the opening *c*, as to arrest the upward current through the tube, and frequently direct it downward, so as to cause the chimney on which the cap or ventilator may be placed, to discharge smoke into the room from which its flue may proceed. The whole combination and arrangement of frusta with the tube and the cover E are found to operate perfectly, and whatever may be the direction of the wind upon the ventilator, no reversal of the upward current of smoke or air, that may be passing up the tube, can or will take place.

After passing up through the pipe A, the smoke will next rush through the opening *a*, and be discharged against the plate E, which will deflect it laterally into the atmosphere, and any current of wind which may strike the ventilator from any direction, will tend to promote or increase the upward flowage of the smoke in the tube, or its discharge therefrom, as experiment will thoroughly demonstrate.

I make no claim to the arrangement of the cover E, and either or both of the frusta C D, with the tube A, but

What I do claim as my invention, is—

The combination, as well as the arrangement, of the three frusta B C D, the cover E, and the tube A, the whole being connected so as to operate substantially as described.

JOHN J. CURRIER.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.