P. J. BELFORD.
Ventilator-Cap.

No. 212,647. Patented Feb. 25, 1879.

Fig 1.

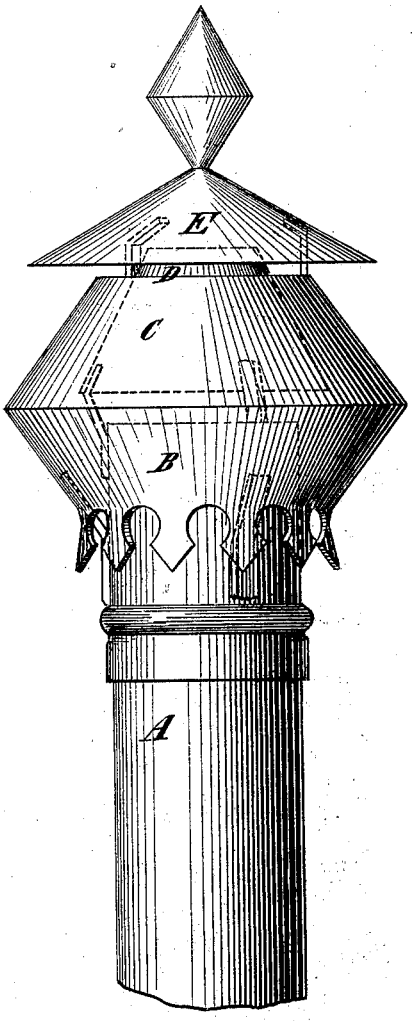
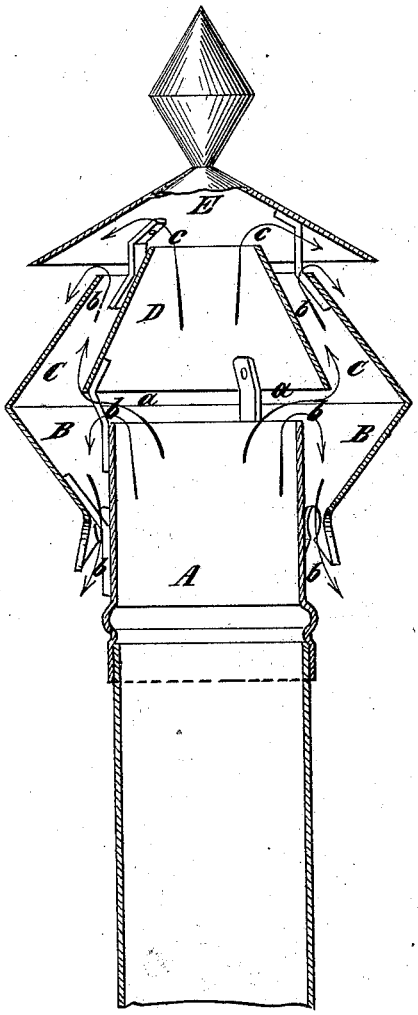


Fig 2.



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UNITED STATES PATENT OFFICE.

PHILIP J. BELFORD, OF NEW YORK, N. Y.

IMPROVEMENT IN VENTILATOR-CAPS.

Specification forming part of Letters Patent No. **212,647**, dated February 25, 1879; application filed December 26, 1878.

To all whom it may concern:

Be it known that I, PHILIP J. BELFORD, of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Ventilator-Caps, of which the following is a specification:

My invention consists in a ventilator-cap, preferably formed of sheet metal, adapted to be secured to the top of a ventilating shaft or tube, and comprising an upwardly-flaring deflector, surmounted by an upwardly-contracted deflector, the two forming frustums of cones, united at their bases, and an internal upwardly-contracted deflector, also forming a frustum of a cone, whereby wind striking the ventilator-cap is deflected upward and downward, causing the air therein to expand, and maintaining a rapid draft in the shaft or tube.

In the accompanying drawings, Figure 1 represents a side elevation of a ventilator-cap embodying my improvements, and Fig. 2 a central vertical section thereof.

Similar letters of reference designate corresponding parts in both figures.

A designates a ventilating shaft or tube, near the top of which is secured an upwardly-flaring deflector, B, forming a frustum of a cone. This deflector is fitted outside the shaft or tube, and is larger at the lower end than the said shaft or tube, so as to leave a space between the two.

C designates an upwardly-contracted deflector, also forming a frustum of a cone, surrounding the deflector B, and the upper end of which may be of about the size of the ventilator shaft or tube A.

D designates an upwardly-contracted deflector, also forming a frustum of a cone, secured to the ventilator shaft or tube at the top, above the deflector B, within the deflector C, and the upper end of which extends above the deflector C. The deflector D is placed a little above the end of the shaft or tube, so as to leave an opening, *a*, between the two, through which air may pass out.

E designates a cap, forming a weather-cone, which extends over the ventilator-cap, and prevents rain from falling down the shaft or tube.

It is obvious that wind striking the exterior of the deflectors B and C is deflected both upward and downward, and causes the foul air drawn through the opening *a* to escape at the top and bottom of said deflectors, as indicated by the arrows *b*. Wind which passes between the top of the deflector C and the weather-cone E strikes the internal deflector D, and causes the air to pass out at the top of said deflector, as indicated by the arrows *c*.

By my invention wind striking the cap is deflected by the surfaces of the three deflectors, and three drafts are created, causing the air to expand, and maintaining a strong draft through the ventilating shaft or tube.

My improvements might be embodied in chimney-cowls with advantage.

What I claim as my invention, and desire to secure by Letters Patent, is—

A ventilator-cap adapted to be secured to the top of a ventilating shaft or tube, and comprising an upwardly-flaring deflector, B, surmounted by an upwardly-contracted deflector, C, the two forming frustums of cones, united at their bases, and an internal upwardly-contracted deflector, D, also forming a frustum of a cone, substantially as and for the purpose specified.

PHILIP J. BELFORD.

Witnesses:

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