# H. A. GOUGE.

## Ventilator-Cap.

No. 166,984. Patented Aug. 24, 1875.

*Fig. 1*

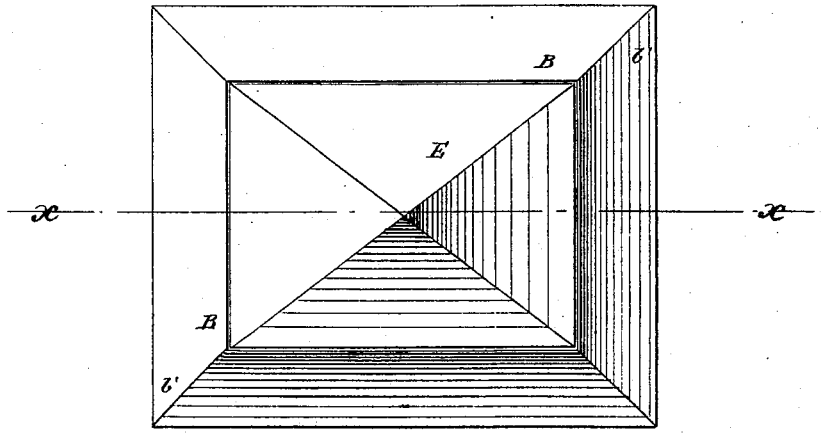
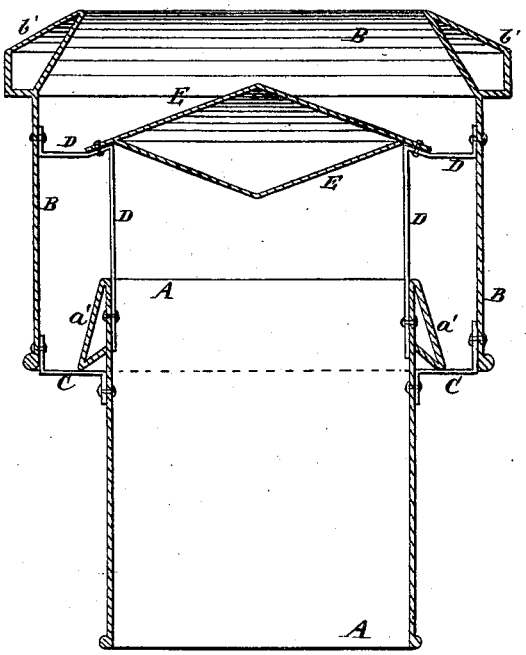



*Fig. 2*




WITNESSES:

A. W. Almqvist

A. Edquist

INVENTOR:

H. A. Gouge

BY Munn & Co

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HENRY A. GOUGE, OF NEW YORK, N. Y.

## IMPROVEMENT IN VENTILATOR-CAPS.

Specification forming part of Letters Patent No. **166,984**, dated August 24, 1875; application filed August 1, 1874.

*To all whom it may concern:*

Be it known that I, HENRY A. GOUGE, of the city, county, and State of New York, have invented a new and useful Improvement in Ventilator-Cap, of which the following is a specification:

Figure 1 is a top view of my improved ventilator-cap. Fig. 2 is a vertical section of the same, taken through the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

A is the lower part or base of the cap, which is designed to be secured to the upper end of the ventilator-flue. B is the upper part or body of the cap, which is made of the same shape as the lower part A, but larger, and which is so arranged that its lower part may overlap the upper end of the lower part A. The part B is connected with, and supported from, the part A by the bars C and D. The bars C are bent twice at right angles near their ends, and their outer ends are riveted or otherwise secured to the part B at or near its lower edge. The inner ends of the bars C are riveted or otherwise secured to the part A. The lower ends of the bars D are riveted or otherwise secured to the part A. The bars D pass up vertically, are bent outward at right angles, project to the sides of the part B, are again bent at right angles, and are riveted or otherwise secured to the said part B. To the bars D, at their angles, are riveted or otherwise secured the edges of the deflector E, which is made in the form of two low pyramids, placed base to base, their apexes being in the vertical line passing through the centers of the parts A and B. The deflector E is made of such a size as to slightly project beyond the planes of the sides of the part A. The upper part of the part B is drawn inward or contracted until its upper edge is in line with, or slightly overlaps, the edges of the deflector E. To the part B, at the point where it begins to contract, is attached the edge of a plate, *b'*, which projects outward horizontally for a short distance, is then bent upward at right angles, projects vertically for about half the height of the inclined upper part of the part B, and then inclines inward until its upper edge meets and is secured to the upper edge of the said part B, thus forming a cornice around the top of the cap. To the upper edge of the part A is attached the edge of a plate, *a'*, which projects downward and outward until in line with the lower edge of the part B, at which point it is bent inward and upward at an acute angle, and its edge is secured to the side of the part A, thus forming an angular cornice around the top of the part A.

With this construction all rain, sleet, and snow that enter the open top of the cap fall upon the deflector E, slide down it, drop from its edges upon the inclined cornice *a'*, and pass out. In the same way a downward wind entering the open top of the cap strikes the deflector E, is deflected outward against the sides of the part B, rebounds against the inclined upper side of the cornice *a'*, and passes out without entering the flue. Any upward or horizontal wind that strikes the sides of the part A and passes upward enters the cavity of the angular cornice *a'*, and is deflected outward, so as to pass upward upon the outer side, or close to the inner side, of the sides of the part B, so that it cannot enter the flue. The cornice *b'* gives a finish to the cap, and at the same time deflects any upward or horizontal wind upward, so that it will pass over the top of the cap without entering it.

In this way any wind, no matter from what direction it blows, not only cannot enter the flue, but actually induces an upward draft through the flue.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The base A, overlapping body B, and rim-projecting deflector E, combined with the angular cornice-plate *a'*, as and for the purpose specified.

HENRY A. GOUGE.

Witnesses:
JAMES T. GRAHAM,
T. B. MOSHER.