

(No Model.)

S. J. BROWN.
VENTILATOR.

No. 509,593.

Patented Nov. 28, 1893.

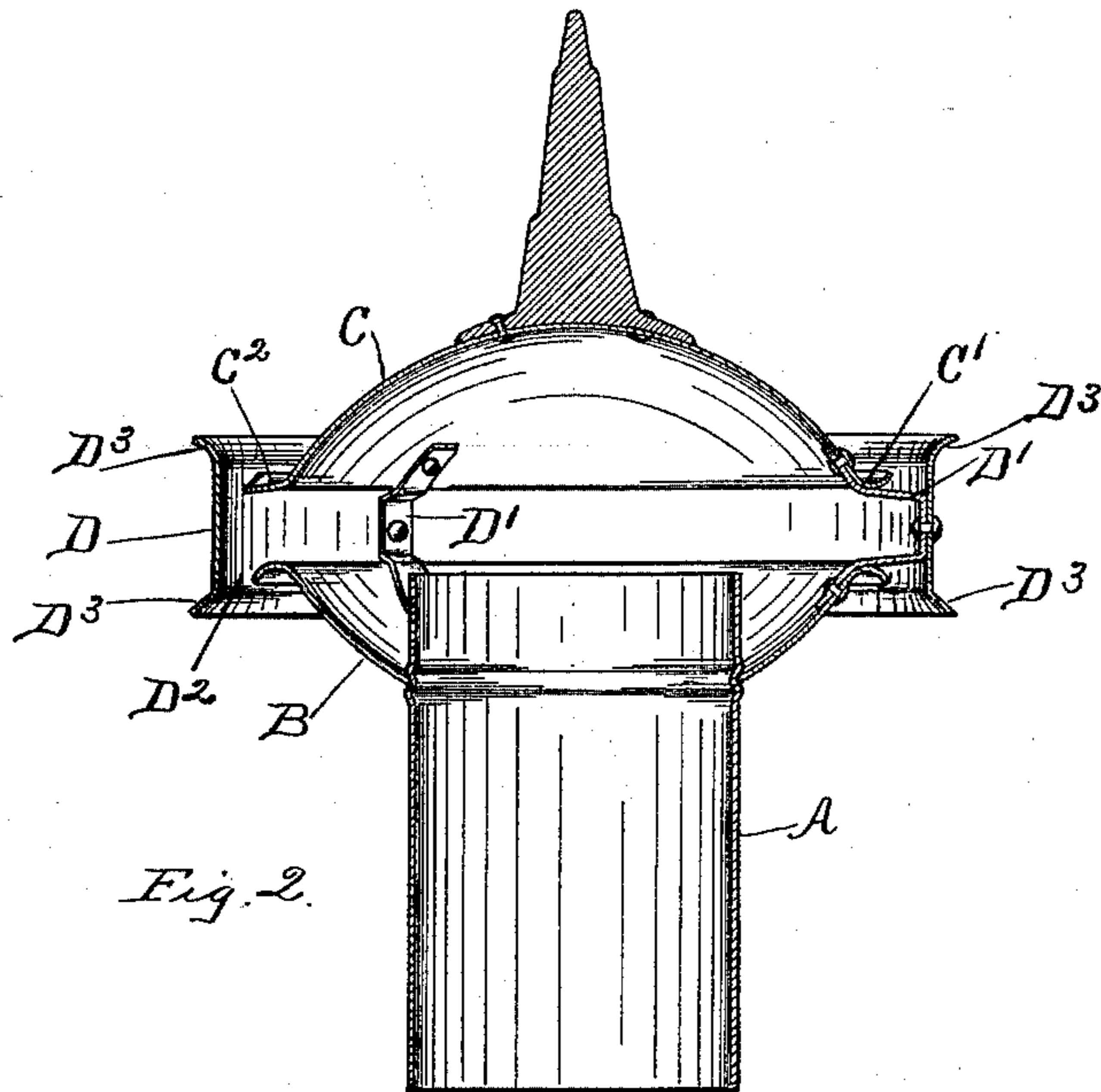


Fig. 2.

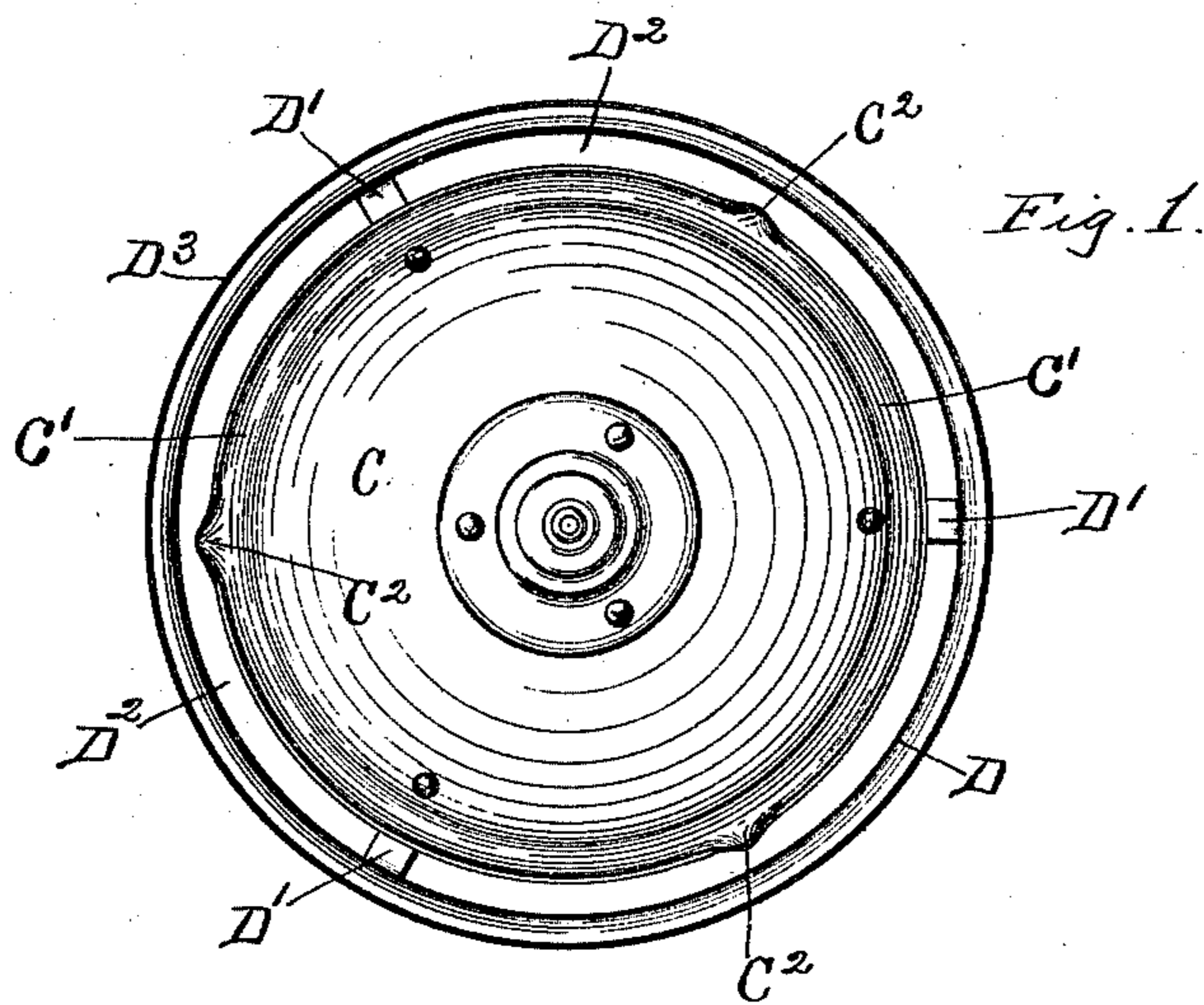


Fig. 1.

Witnesses:
A. E. Delaney.
Henry Speck

Inventor:
Stephen J. Brown
by Mosher & Curtis attys.

UNITED STATES PATENT OFFICE.

STEPHEN J. BROWN, OF TROY, NEW YORK, ASSIGNOR OF ONE-HALF TO
GEORGE E. WALDRON, OF SAME PLACE.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 509,593, dated November 28, 1893.

Application filed June 12, 1893. Serial No. 477,253. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN J. BROWN, a citizen of the United States, residing at Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Ventilators, of which the following is a specification.

My invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the two figures therein.

Figure 1 of the drawings is a top plan view of my improved ventilator. Fig. 2 is a central vertical section of the same.

My invention is an improvement upon the well known "globe" ventilator which consists of a vertical tubular shaft A, an annular upwardly inclined flange B secured to the shaft near its upper end, a hood C, and an annular shield or band D surrounding the space between the perimeters of the hood and flange. The shield and hood are connected by the supporting brackets D' with the flange B. The shield is separated from the hood and flange by a space D² sufficiently to permit of the free escape of air and gases passing up through the shaft. For convenience in description, the annular flange B is termed the lower or inverted dome, and the hood the upper dome. The upper dome has its peripheral edge turned upward to deflect the air-currents, thereby forming an annular gutter C' on the upper side of the upper dome near its edge.

The objects of my invention are to drain the gutter in the upper dome and discharge the water outside of the lower dome; and to increase the efficiency of the ventilator.

My invention consists in providing the upper dome with a plurality of radial gutters leading outwardly from the annular gutter C' past the periphery of the lower dome; and in providing the opposite ends of the shield with

edge-flanges flaring outwardly from points in the shield approximately in plane with the respective dome edges.

As the air-currents pass in any direction across the space between the end-edges of the shield and the respective edges of the two domes, the air inclosed between the two domes is drawn out and an upward air-current established through the shaft. By flaring the end-edges of the shield outwardly, as shown at D³, the wind, or extraneous air-currents, passing over the space D² exerts a prolonged influence upon the inclosed air and increases the efficiency of the ventilator.

The device is simple and adds very little to the cost of the ventilator, as compared with its increased efficiency.

I am aware that outwardly flaring strengthening flanges have been heretofore employed on the surrounding shield of a ventilator, and I do not broadly claim the same. While the shield-flanges serve the purpose of strengthening the shield, their principal use in my improved construction is in connection with the upwardly flaring flange which surrounds the gutter formed in the periphery of the upper dome, and the similar downwardly flaring flange on the periphery of the lower dome. Each shield-flange and its oppositely located dome-flange is inclined at similar angles so that the shield flanges practically form a continuation of the respective dome flanges, and at approximately the same angle, so that the air-currents which are deflected by the inclined dome-flanges pass naturally and wholly over the space between the dome and shield flanges whereby the vacuum-force is increased therein.

If water is allowed to remain during the cold season in the annular gutter formed in the upper dome, it will freeze and fill the gutter, thereby impairing the efficiency of the ventilator. Heretofore the gutter has been provided with a plurality of drip-openings through its bottom, but the drip from such openings fell inside the lower dome and accumulated between the lower dome and the shaft notwithstanding drip openings formed in the lower dome, causing the parts to rust

and sometimes become partly disconnected by the expansion of accumulated ice. By providing a plurality of radial gutters C² formed by simply depressing a small part of the upturned peripheral edge, I am able to conduct the water not only over the peripheral edge of the dome, but considerably beyond it so that the water falling from the mouth of the gutter will not enter the lower dome. Depressing the upturned edge forming the annular gutter lengthens the depressed portion and causes it to project beyond the general periphery of the dome, as seen in the drawings.

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

1. The combination of the edge shield-flange with the peripheral dome-flange, both flanges being located in approximately the

same inclined plane, substantially as described.

2. In a ventilator a lower inverted dome, in combination with an upper dome located vertically above the lower dome and corresponding therewith in size and general peripheral form provided on its upper side with an annular gutter near its periphery and a plurality of radial gutters leading from the annular gutter outwardly beyond the peripheral edge of the lower dome, substantially as described.

In testimony whereof I have hereunto set my hand this 9th day of June, 1893.

STEPHEN J. BROWN.

Witnesses:

A. E. DELANEY,
FRANK C. CURTIS.