R. S. GODFREY.

Ventilator or Smoke-Cowl.

No. 201,241. Patented March 12, 1878.

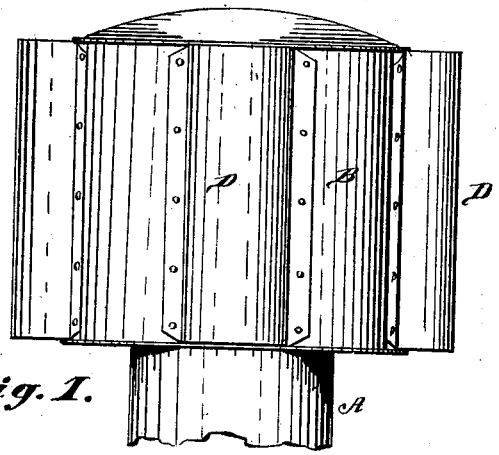

Fig. 1.

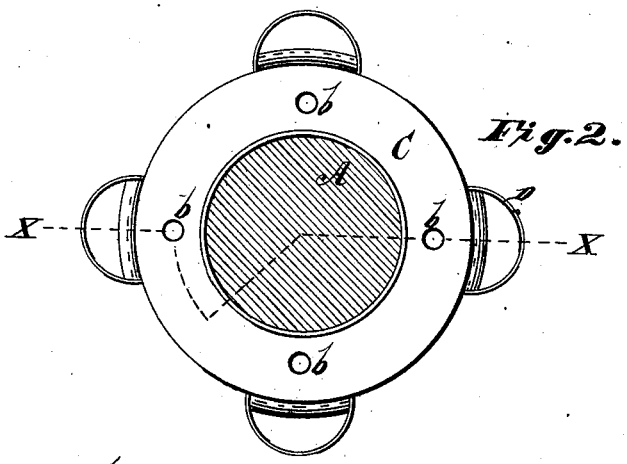

Fig. 2.

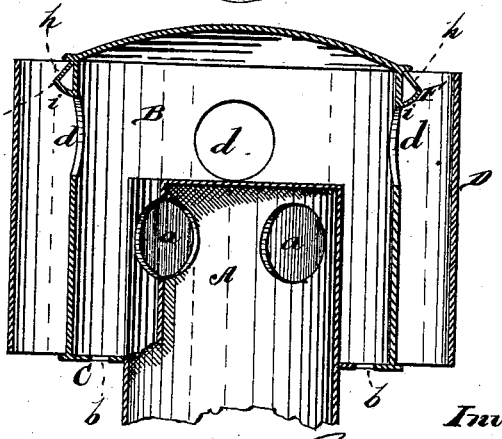

Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

ROBERT S. GODFREY, OF CAMDEN, NEW JERSEY.

IMPROVEMENT IN VENTILATORS OR SMOKE-COWLS.

Specification forming part of Letters Patent No. **201,241**, dated March 12, 1878; application filed February 16, 1878.

To all whom it may concern:

Be it known that I, ROBERT S. GODFREY, of Camden, in the county of Camden and State of New Jersey, have invented an Improvement in Ventilators or Smoke-Cowls for Chimneys, &c.; and I do hereby declare that the following is a full, clear, and exact description of the same.

The object of my invention is to so construct the ventilator or cowl as to provide for the free discharge of the products of combustion at all times, and to obviate the objectionable down-drafts. This object I attain in the following manner, reference being had to the accompanying drawing, in which—

Figure 1 is a side view of my improved ventilator or draft apparatus; Fig. 2, an inverted plan view of the same; and Fig. 3, a vertical section on the line X X, Fig. 2.

A represents a cylinder of any suitable dimensions, and adapted to the top of a chimney or stack, this cylinder being closed at its upper end, and provided near the top with apertures *a*.

The upper end of the cylinder A is surrounded by a cap, B, the top of which is somewhat above the top of the cylinder, and in the bottom C of the cap are a series of perforations, *b*.

On the outside of the cap B are secured, in the present instance, four semicircular casings, D, extending from top to bottom of the cap, and open at both ends.

Openings *d* are made in the cap B, near the top of the same, so as to afford communication between the interior of the cap and the channels bounded by said casings D.

Above each opening *d* is arranged a deflector, F, having an inclined upper surface, *h*, and a slightly convex under surface, *i*. This exact form of deflector, however, is not essential.

The products of combustion ascending the cylinder A pass through the apertures *a* into the cap B, and from thence through the apertures *d* into the channels inclosed by the casings D.

If the draft of air is upward through these channels, the products of combustion ascend and escape from the tops of the channels; but if the draft is downward the products of combustion are caused to descend and escape from the bottoms of the channels.

Volumes of air entering the channels at the top are prevented by the deflectors F from interfering with the outward passage of the products of combustion through the openings *d*.

The openings *b* in the bottom *c* of the cap B provide for the escape of water which may enter the said cap.

I claim as my invention—

1. The combination of the cylinder A, having apertures *a*, the cap B, having apertures *d*, and the exterior casings D, open at both ends, substantially as and for the purpose herein set forth.

2. The combination of the cap B, having apertures *d*, the exterior casings D, and the deflectors F, all substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ROBERT S. GODFREY.

Witnesses:

EDWARD C. RYER,

HENRY MACTIER.