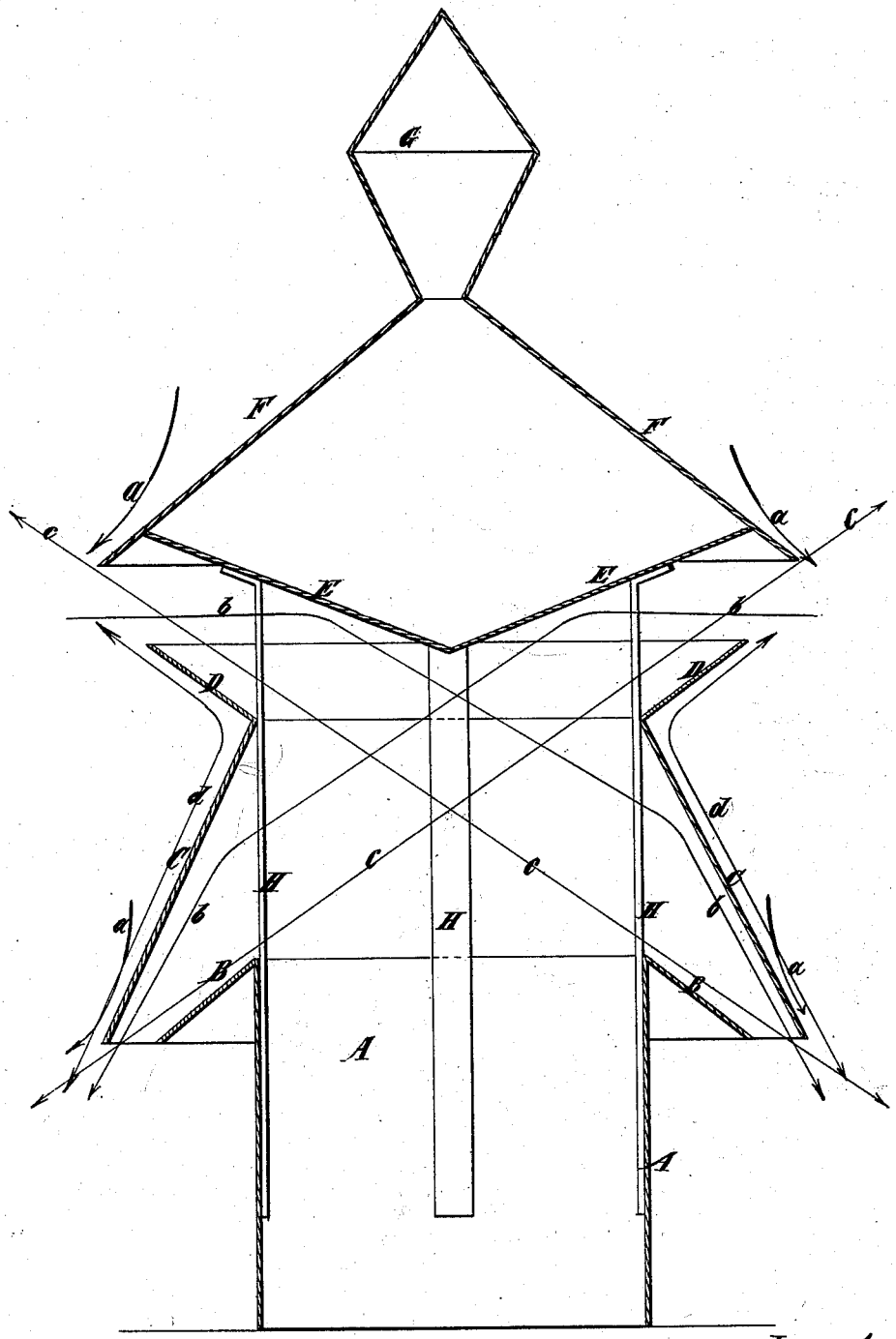
D. SCOTT.

Chimney or Ventilator Cap or Cowl.

No. 206,978. Patented Aug. 13, 1878.



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UNITED STATES PATENT OFFICE.

DANIEL SCOTT, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CHIMNEY OR VENTILATOR CAPS OR COWLS.

Specification forming part of Letters Patent No. **206,978**, dated August 13, 1878; application filed July 17, 1878.

To all whom it may concern:

Be it known that I, DANIEL SCOTT, of Brooklyn, in Kings county and State of New York, have invented certain new and useful Improvements in Chimney or Ventilator Caps or Cowls, of which the following is a specification:

The object of my improvements is to produce a chimney or ventilator cap which will deflect wind blowing from any direction in such manner as to prevent it from passing down the chimney or ventilator flue, and, moreover, cause it to induce an outward draft through such chimney or flue.

The invention consists in such combination of deflectors in a chimney cap or cowl as to permit the passage of wind blowing obliquely across the cap or cowl over the top of the flue, so as to induce an outward draft through the same, and to deflect air blowing in other directions, so as to induce an outward draft through the flue at the openings of the cap or cowl.

The accompanying drawing represents a central vertical section of a cap or cowl embodying my invention, as also of a portion of a flue to which such cap or cowl is applied. This cap or cowl is preferably of circular form, made of sheet metal.

A designates a ventilator or chimney flue. B designates a deflector arranged on the outside of said flue at or near the top, and inclining downwardly and outwardly around said flue, preferably forming a frustum of a cone. C designates a deflector which at the base overlaps the top portion of the flue at a considerable distance outside of the deflector B, and which is contracted internally to a point some distance above the flues, preferably forming internally a frustum of a cone, and nearly corresponding to the deflector B.

D designates a deflector surmounting the deflector C, and constructed so as to flare internally outward, preferably forming internally an inverted frustum of a cone. I have shown these deflectors C and D as having their exteriors formed to correspond with their interiors, and when thus made they form double or outside and inside deflectors.

E designates a deflector arranged a short distance above the deflector D, constructed so as to flare externally outward, preferably forming an inverted cone.

F designates a deflector surmounting the deflector E, and contracted externally upward, preferably forming a cone or frustum thereof.

G designates a finial, which may be of any suitable or desirable ornamental form.

The several parts of the cap or cowl above described may be connected together and supported from the flue to which said cap or cowl is applied in any suitable manner—as, for instance, by rods or standards H extending from the flue.

I will now explain the operation of the cap or cowl: If the wind should blow downward, as indicated by the arrows *a*, it would be deflected outward at the opening between the deflectors F or E and D, and at the opening between the deflectors C and B, and, by producing a partial vacuum there, induce an outward draft through the flue. If, however, the wind should blow horizontally, as indicated by the arrows *b*, it would pass through the opening between the deflectors F or E and D at one side, and pass out at the opening between the deflectors C and B, and, by producing a partial vacuum at the top of the flue, would induce an outward draft through the same. If the wind should blow obliquely downward or upward, it would pass from one side through either the opening between the deflectors F or E and D or the opening between the deflectors C and D, and out at the other opening, as indicated by the double-headed arrows *c*, inducing in either case an outward draft through the flue. It would also be deflected by the exterior of the deflectors C and D, as indicated by the double-headed arrows *d*, and induce an additional draft at the opposite side of the opening of the cap or cowl through which it entered said cap or cowl.

It will be seen that by my invention I produce a simple and cheap cap or cowl for ventilators or chimneys, which will admit oblique currents of air through it so as to induce outward drafts through the flue, and will so deflect such currents of air, as also horizontal and vertical currents, as to induce outward drafts through said flue.

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

1. In a ventilator or chimney cap or cowl,

the combination of an internally upwardly-contracted deflector, C, and a surmounting internally upwardly-flaring deflector, D, whereby provision is afforded for the passage of currents of wind obliquely across the top of the flue to which the cap or cowl may be applied, substantially as specified.

2. In a ventilator or chimney cap or cowl, the combination of an internally upwardly-contracted deflector, C, a surmounting internally upwardly-flaring deflector, D, and an inverted conical deflector, E, above the latter, substantially as and for the purpose specified.

3. In a ventilator or chimney cap or cowl, the combination of an internally and externally upwardly-contracted deflector, C, and a surmounting internally and externally flaring deflector D, substantially as and for the purpose specified.

4. The combination, with a ventilator or chimney flue, of the deflectors B, C, D, E, and F, substantially as and for the purpose specified.

In testimony that I consider the above-named improvements to be my invention I hereunto subscribe my name.

DANIEL SCOTT.

Witnesses:

CHANDLER HALL,

OWEN PRENTISS.