

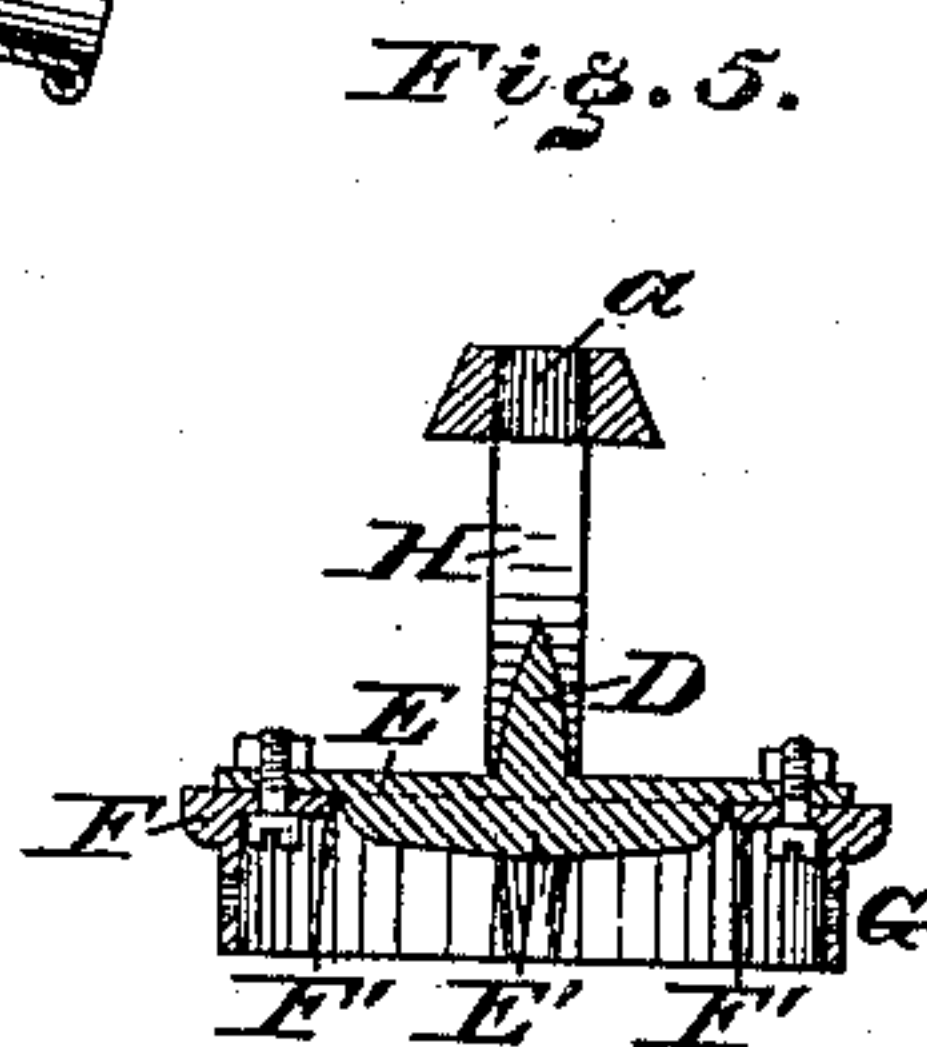
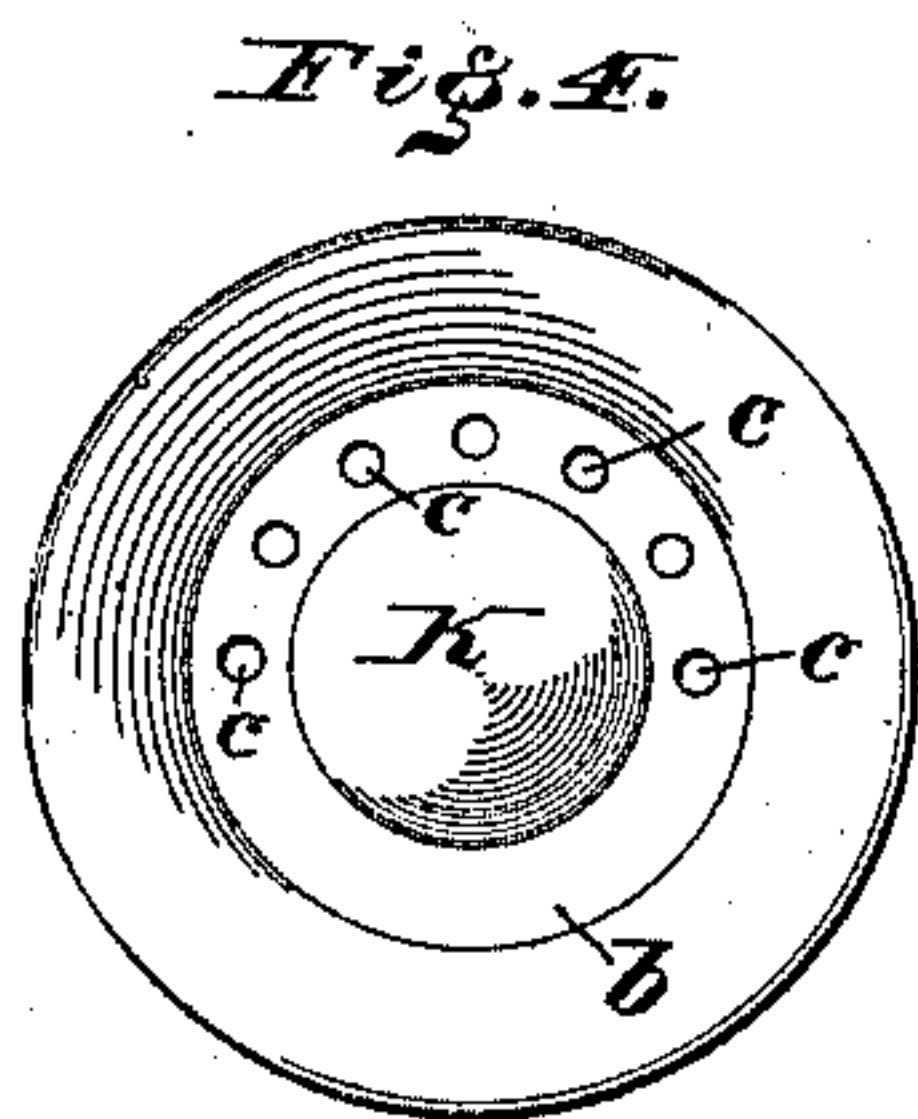
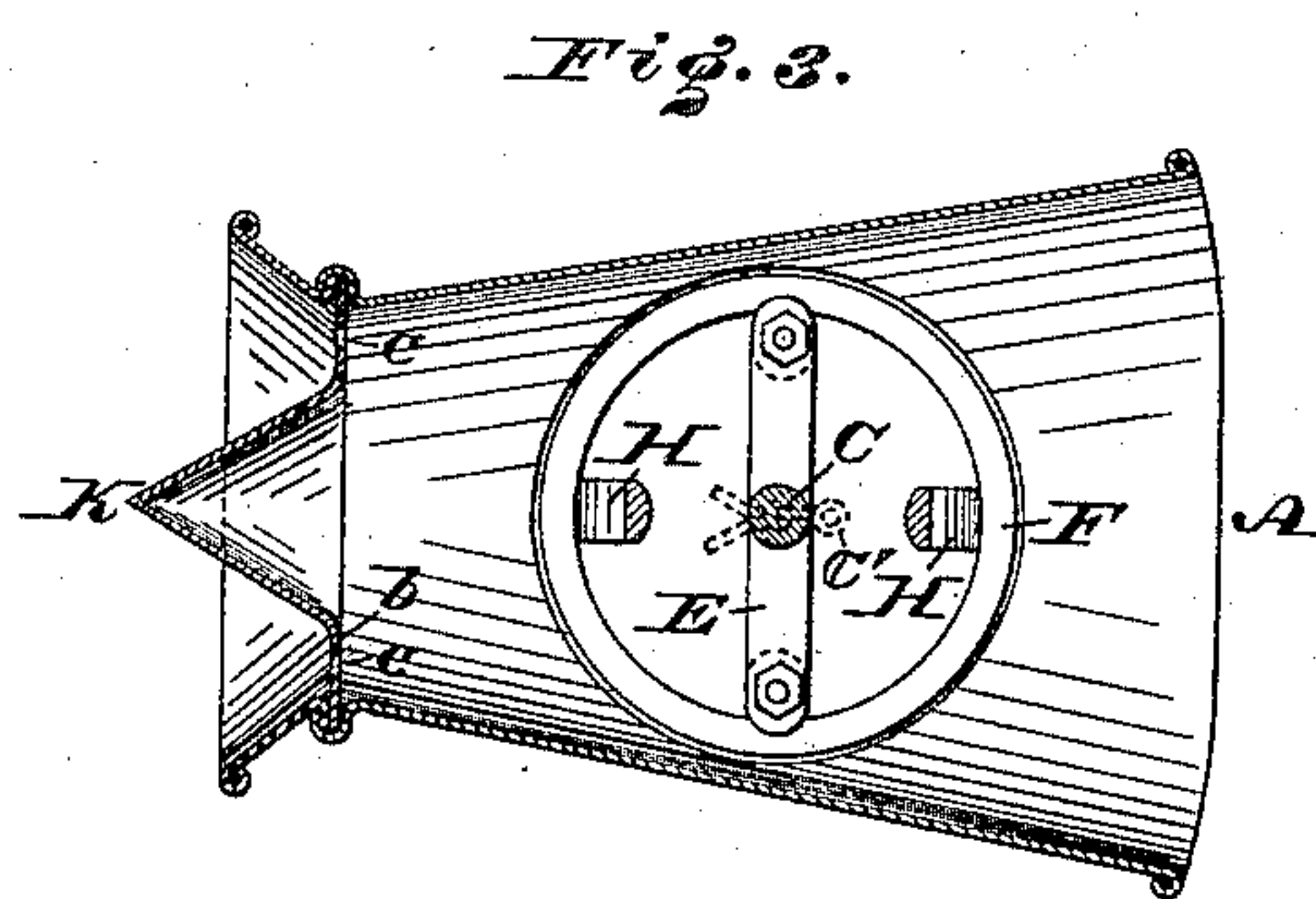
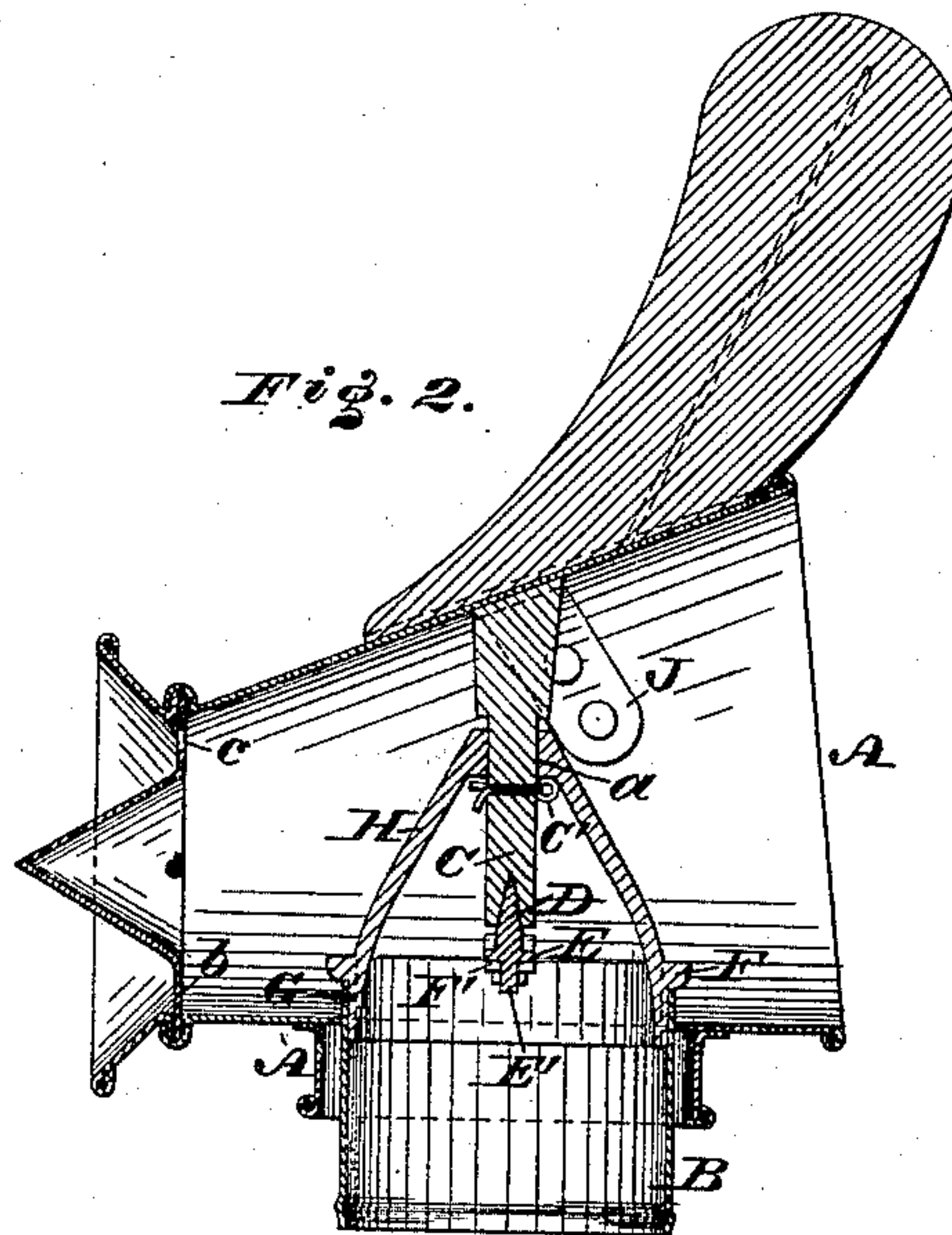
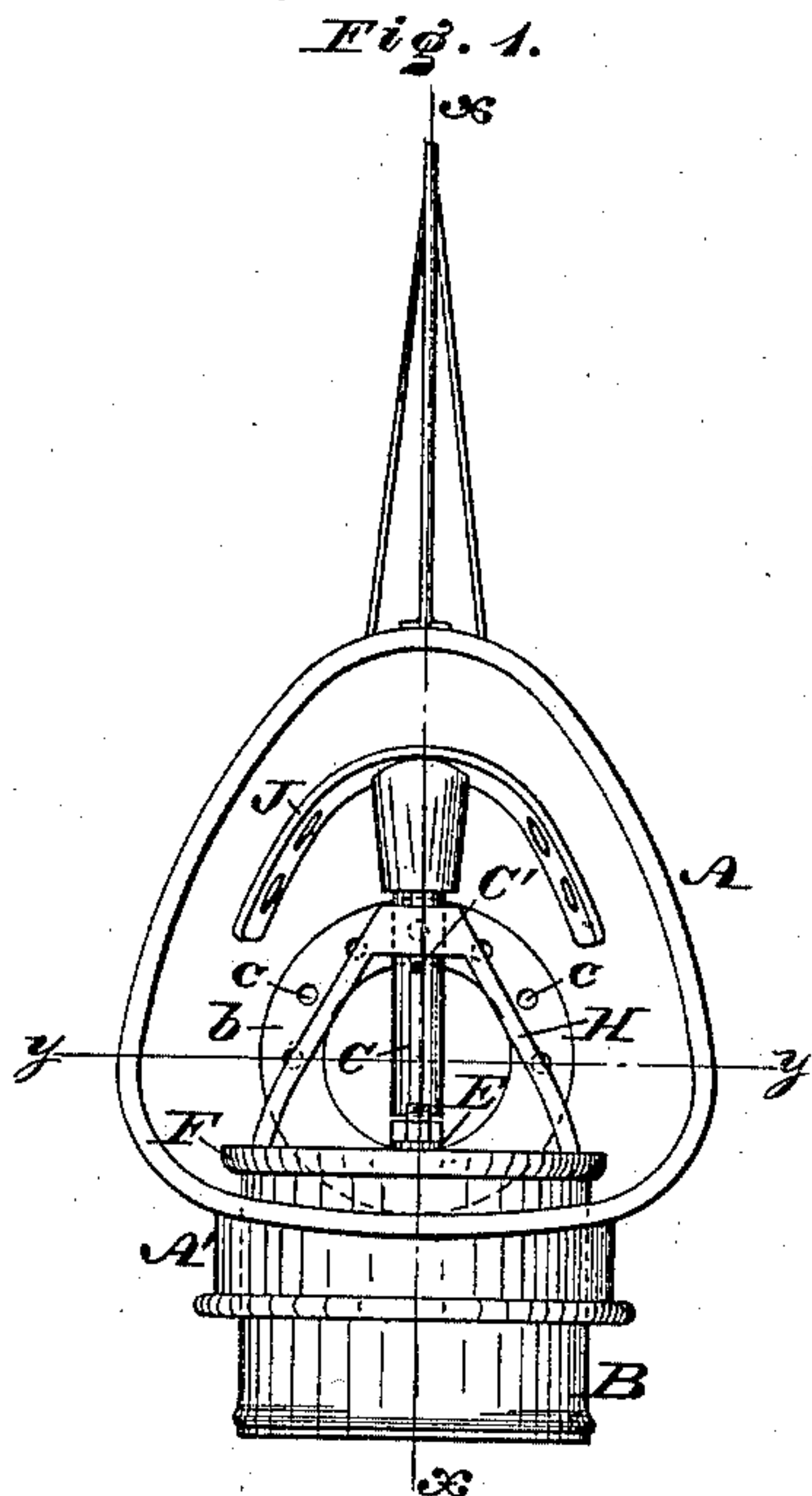
(No Model.)

W. G. HENIS.

CHIMNEY COWL AND VENTILATOR.

No. 316,781.

Patented Apr. 28, 1885.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

WILLIAM G. HENIS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE
HALF TO HALL & CARPENTER, OF SAME PLACE.

CHIMNEY COWL AND VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 316,781, dated April 28, 1885.

Application filed July 31, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. HENIS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Chimney Cowls and Ventilators, which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 is a front view of a chimney cowl and ventilator embodying my invention. Fig. 2 is a longitudinal vertical section thereof in line *x x*, Fig. 1. Fig. 3 is a horizontal section thereof in line *y y*, Fig. 1. Fig. 4 is an
15 end view of the cap thereof. Fig. 5 is a vertical section of a detached portion.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a chimney cowl and ventilator constructed in such a manner that it produces an increased draft, rotates with great freedom, and is simple and inexpensive, all as will be hereinafter fully set forth.

25 Referring to the drawings, A represents the rotating cap, and B the stationary tube which supports the same, said tube being adapted to be inclosed or otherwise secured to a chimney, flue, or other place where the cowl or
30 ventilator is desired. To the top of the cap, on the under side thereof, is secured a depending spindle, C, whose lower end is rested on a step, D, which rises from a cross-bar, E, on the tube B.

35 F represents a ring or annulus which is connected with the top of tube B, and formed with lugs F', to which the ends of the cross-bar E are bolted, thus firmly securing said bar in position. Formed with the annulus is a de-
40 pending flange, G, which embraces the inner face of the tube B, and rising from said annulus is a saddle, H, the crown of which has an opening, *a*, constituting a boss, through which the spindle C is passed. In the spin-
45 dle below the boss is inserted a pin or key, C', whereby upward displacement of the cap A is prevented.

J represents a brace which is formed with or secured to the top of the spindle C, and
50 riveted to or otherwise connected with the inner face of the top of the cap, thus strength-

ening said part of the cap, and preventing the spindle from being thrust through the same. The cap and tube are preferably formed of sheet metal and the other parts described of 55 cast metal, the annulus, lugs, flange, and saddle being in one piece. It will be seen that the annulus, with its flange and the saddle, forms a strong structure for supporting the cap, and as the spindle is rested below on the 60 step D and encircled above by the boss or opening of the saddle, the cap is thereby nicely sustained, guided true, and caused to rotate with ease and uniformity. The cap A is formed of a tube somewhat cone-shaped, 65 arranged horizontally or at a right angle to a vertical axis, and open at the end from the wind. In the bottom of the cap is an opening around which is a collar, A', which freely circumscribes the tube B, the latter 70 projecting into the cap through said opening. The end of the cap to the wind is closed by a conical deflector, K, which projects outwardly, and in the rim or plate *b* of said end are openings *c*. 75

The tube of which the cap is formed is broadened at bottom and narrowed at top, as seen in Fig. 1, the object whereof is as follows: When the wind strikes the deflector K, it is thereby forcibly directed into and through 80 the openings *c*, and similarly driven through the narrow top of the cap, whereby an increased draft is created in the chimney-flue, &c. The products of combustion, heated air, vapor, &c., rising in the chimney are caught 85 by the forcibly-impelled air, and as they are not checked or retarded, but permitted to expand in the wide base of the cap, it is evident that they are quickly expelled, and thus the cowl or ventilator operates with certainty 90 and rapidity. It will also be seen that the device is formed of few parts, and is thereby simple and inexpensive. Owing to the weight superimposed on the cross-bar E, the same is formed with a rib, E', for strengthening pur- 95 poses.

I am aware that cowls and ventilators have been constructed for the purpose of producing a vacuum in the rear end of the hood, so as to draw out the impure air and smoke, and 100 such I do not claim, broadly.

Having thus described my invention, what

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

1. A cowl or ventilator having a rotating cap wider at the bottom thereof than at the top, provided with a conical deflector having openings in its rim, substantially as and for the purpose set forth.

2. A cowl or ventilator having a rotary cap wider at the bottom thereof than at the

top, and provided with a conical deflector having openings in its rim, and a depending flange surrounding the stationary tube thereof, substantially as and for the purpose set forth.

W. G. HENIS.

Witnesses:

JOHN A. WIEDERSHEIM,
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