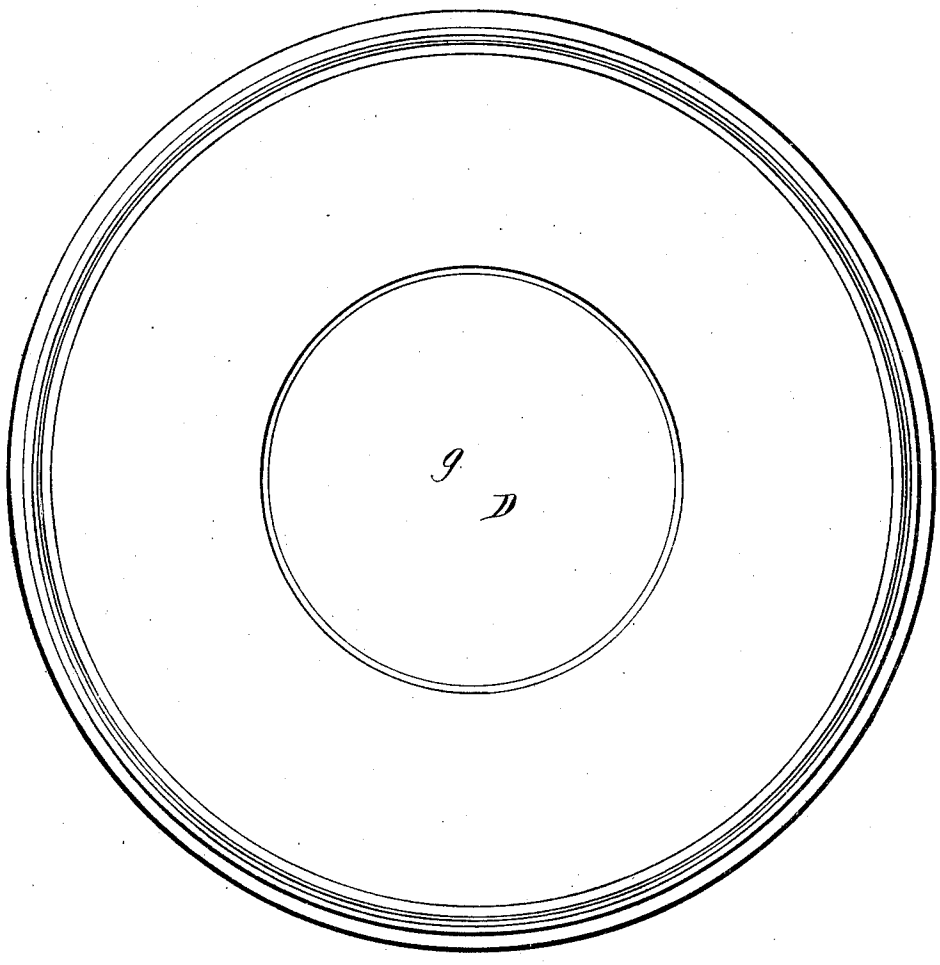
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F. Mihan,

Chimney Cowl.

No. 16,246. Patented Dec. 16. 1856.

Fig. 1.



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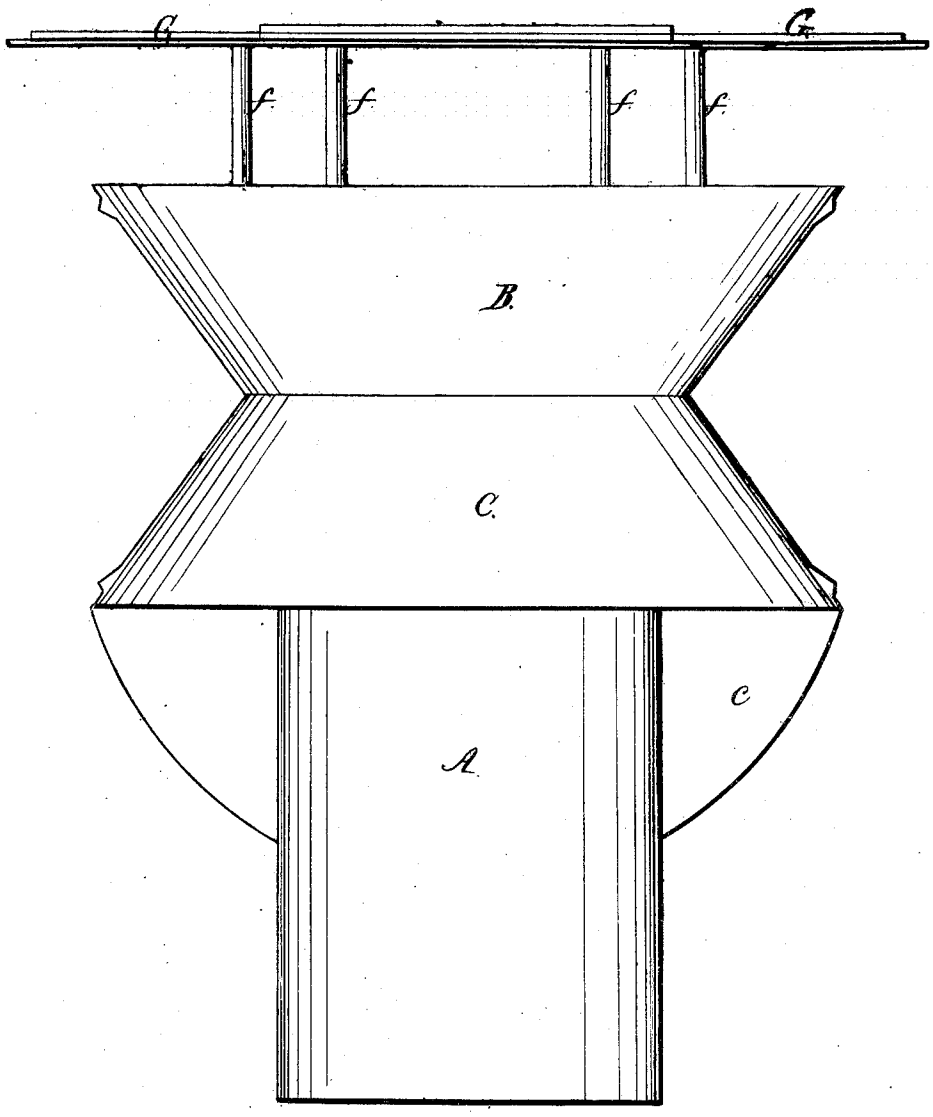
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Fig. 2.



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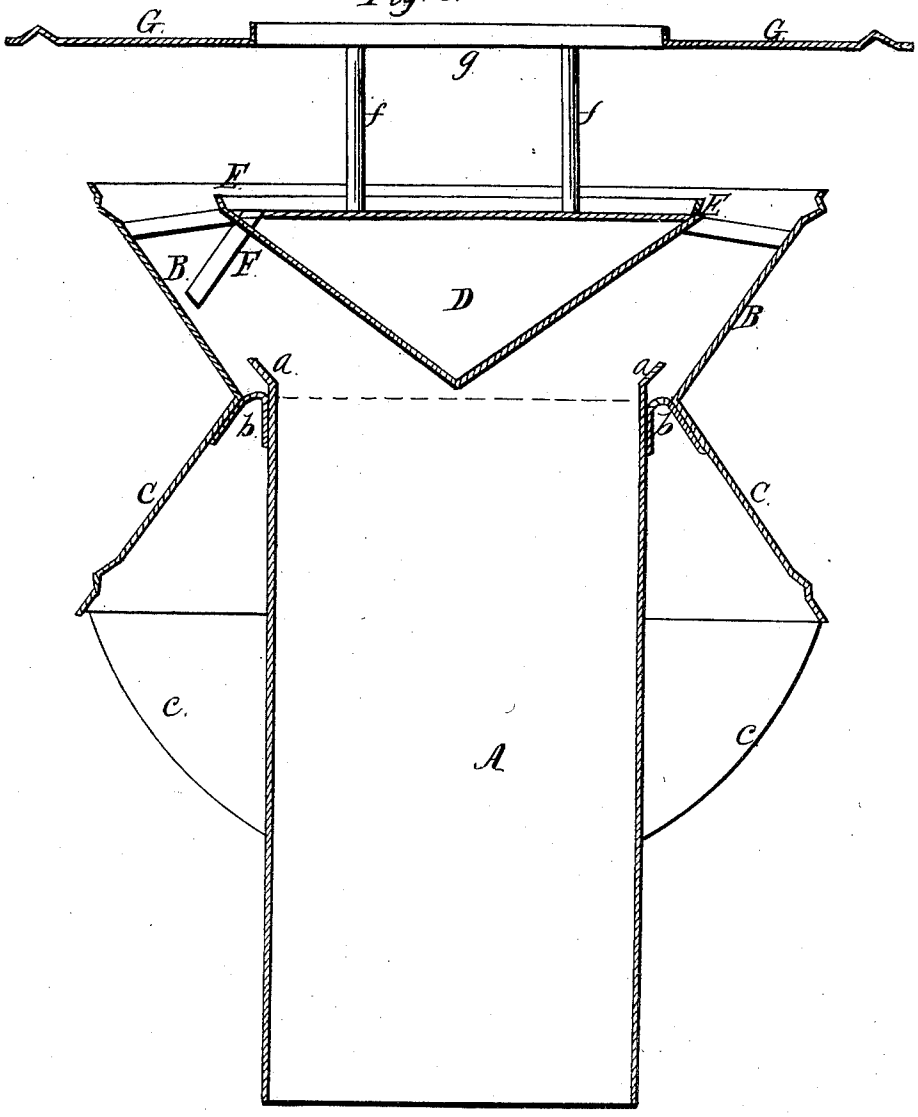
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Fig: 3.



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UNITED STATES PATENT OFFICE.

PATRICK MIHAN, OF BOSTON, MASSACHUSETTS.

CHIMNEY-COWL.

Specification of Letters Patent No. 16,246, dated December 16, 1856.

To all whom it may concern:

Be it known that I, PATRICK MIHAN, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Chimney-Cap; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1, is a top view of my said chimney cap. Fig. 2, a side elevation of it. Fig. 3, a vertical and transverse section of it.

In these drawings, A, represents a smoke discharge flue or pipe to be affixed in the top of a chimney, the upper end of said pipe being made slightly flaring as seen at *a*, *a'* in Fig. 3. Surrounding said pipe and arranged with respect to one another and the upper ends of the pipe as seen in the drawings are two hollow conical pistons, B, and, C, they being disposed with their inferior bases in contact with one another and with their line of contact arranged concentrically with respect to the tube, A, and a short distance below its upper end or flare and so as to form around the tube, A, an air passage, *b*, *b*, as seen in Fig. 3. These conical frusta may be supported in position by wings or projections, *c*, *c*, extending between the lower one, (viz, C) and the pipe, A, and fastend to the frustum and the pipe. Arranged concentrically around and within the upper frustum, B, and over the top of the tube and so as to extend down within the tube as shown in Fig. 3, is a conical deflector D, supported in position by arms extending from it to the inner surface of the frustum, B. The base or upper edge of the said conical deflector is provided with an inclined guard or rim, F, which extends above it and is arranged entirely around the said base, such deflector being shown in Fig. 3. Besides such guard, the deflector D is provided with a tube or spout, F, which extends from it as shown in Fig. 3, and opens through the top of it and so as not only to receive any water that may fall or be gathered on the said top, but to cause it to be discharged upon the inner surface of the frustum, B, so that it may run down the same and escape outside of the pipe, A, instead of into the interior of the same. Over the frustum, B, and the deflector, D, is a circular cap plate, G, which is arranged with respect to said devices as seen in Fig. 3, it being supported by posts or rods *f*, *f*, extending upward from the deflector.

Directly over the conical deflector D, the cap plate is provided with a circular opening, the same being to allow a downward current of air to pass through the cap plate and strike against the top surface of the deflector and by it be deflected outward, between the cap plate and the upper edge of the frustum B, such current in its course being made to impinge against the guard rim E, and be again depleted by it in such manner as to facilitate or improve the draft up the chimney or flue.

When the chimney cap as constructed in the above described improved manner is fixed on the top of the chimney so that the smoke thereof can flow upward through the pipe, A, such smoke in its passage out of the said pipe will impinge against the conical surface of the deflector, D, and be spread by the deflector and into a current or currents of air, which striking against the external surface of the tube, A, will pass upward underneath the frustum, C, and thence through the passage *b*, *b*, and upward and through the frustum, C, and finally out of the space between the cap and the upper frustum, the draft of the chimney being improved and the smoke carried off thereby. So when a current of air strikes against the external surface of the two frusta, B, C, part of it will be deflected upward so as to improve the draft.

By my arrangement of the principal parts of my chimney cap, it will be extremely difficult, if not impossible to produce a downward draft in the pipe, A, so as to drive smoke down the same—the wind, whatever may be its direction serving rather to improve than injure the draft of the chimney.

I do not claim surrounding the main flue of a chimney, with an air flue whereby air may be thrown upward between the two and over or above the discharging or upper end of the smoke flue in order to promote the draft. Nor do I claim arranging an inverted cone in or above the discharging end of a smoke flue, but

What I do claim is—

1. My arrangement of hollow frusta, B, C, with respect to each other, a smoke flue, A, and an inverted cone deflector, D, placed at and in the upper end of said smoke flue, A, as set forth.

2. I also claim arranging on the flat top surface of the deflector, D, in manner as described, an inclosing deflecting guard E, and

a discharge spout, F, the same being disposed so as not only to gather the water which may fall on the top of the cone and discharge it in one stream upon the inner surface of the upper external frustum B, but so that the guard may serve to deflect (as described) a current of air which may strike on the top of the cone, D.

3. I do not claim providing a ventilator or chimney cap with a cap plate elevated on columns or rods extending above the rest of the cap or ventilator; but what I do claim is providing the cap plate, G, when it is directly over the conical deflector with an opening, *g*, while the remainder of the cap plate may extend over the opening between the cone, D, and the outer cone, B, as described, the same being to allow air to pass through the cap plate and impinge on the top surface of the cone D, in manner and for the purpose as described.

In testimony whereof I have hereunto set my signature this fourteenth day of May A. D. 1856.

PATRICK MIHAN.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.