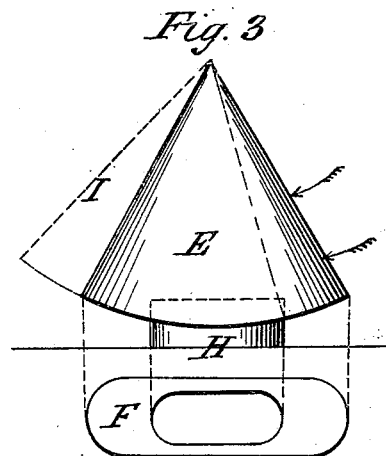
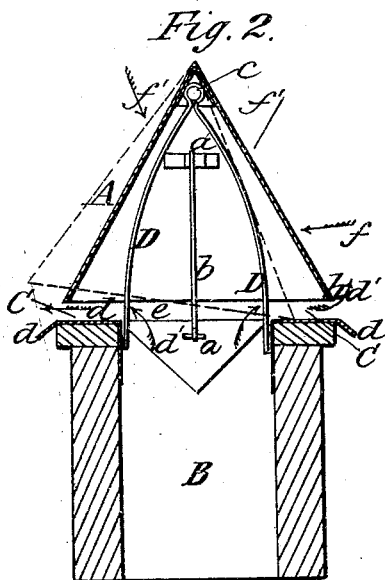
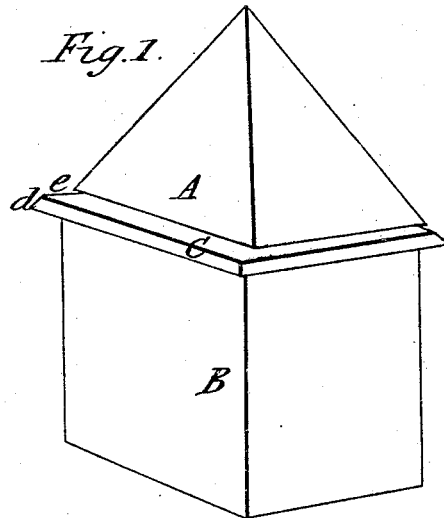


HINKLEY & CROWELL.

Chimney Cap.

No. 50,086.

Patented Sept. 19, 1865.



Inventor:

*E. Hinkley
G. M. Crowell.*

UNITED STATES PATENT OFFICE.

E. HINKLEY AND G. W. CROWELL, OF CLEVELAND, OHIO.

IMPROVEMENT IN CHIMNEY-CAPS.

Specification forming part of Letters Patent No. 50,086, dated September 19, 1865.

To all whom it may concern:

Be it known that we, E. HINKLEY and G. W. CROWELL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in a Chimney Cap and Ventilator Combined; and we do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the cap arranged on a chimney-top, of which Fig. 2 is a vertical section. Fig. 3 will be referred to in the description.

Like letters of reference indicate like parts.

Our improvement relates to a cap that will cause a chimney to draw in any position, and the draft will not be affected by the direction or changes of the wind, and the cap answers an equally desirable purpose for a ventilator.

Figs. 1 and 2 represent the cap in connection with the chimney, A being the cap, and B the chimney.

C is a metallic plate on the upper edge or cap of the chimney, that projects over and is inclined downward in the form of a flange, as at *d*. The cap is of a pyramid form, pointed at the top and inclining outward to the sides of the chimney. The flange *d* of the plate C may be inclined in the same plane. The cap is hung on a bracket or standard, D, (seen in Fig. 2,) that consists of rods or their equivalent extending up from the corners of the chimney, curved together and formed into a head, *e*, at the top for the cap to rest on.

b is a link or hook attached to one side of the chamber and cap at *a a'*, to prevent the cap from being blown or knocked off.

The standard D is of such a height as to elevate the cap, so as to leave a space, *e*, between it and the plate C of the chimney, as represented. The draft is through this space underneath the cap, as indicated by the arrows *d'*, and the smoke can pass out on all sides when the cap is vertical or at an equilibrium, as is the case when there is no wind; but when the wind is blowing in any one direction—as, for instance, in the direction of

the arrow *f*—the wind inclines or tips the cap up, as indicated by the dotted lines in Fig. 2, the lower edge, *h*, of one side resting on the plate C, and the opposite side is elevated in the same proportion, making an equal amount of space for the smoke to pass out at in the course of the wind. The cap is adjusted in this way in any direction according to the point that the wind may strike it.

It is well known that where chimneys are massed together, sometimes near high walls, the wind in currents and eddies produces downward or diving currents into the chimneys, obstructing the draft; but by means of this cap the wind, coming down in the direction of the arrows *f'*, inclines the cap more or less to either side, shielding the opening in the chimney; and if the currents come down directly on the top the cap prevents them from entering the chimney, and the surface of the cap, together with the plate C and flange *d*, deflects the currents and changes their direction.

Thus by means of this cap the imperfect draft of chimneys arising from their position or the change of the wind is removed and they are made to draw equally well under all circumstances.

The plate C is cut diagonally from one inside corner of the chimney to the other in both directions, and each of the four points thus formed bent or folded down upon the inside of the chimney, as shown in Fig. 2, or so much thereof as may be necessary to form a firm support to the plate C; or the plate C may be secured to the top of the chimney by other equivalent means.

What we claim as our improvement, and desire to secure by Letters Patent, is—

The cap A, the standards D, and link *b*, in combination with the plate C, the several parts being constructed and arranged as and for the purpose herein set forth.

E. HINKLEY.
G. W. CROWELL.

Witnesses:

W. H. BURRIDGE,
A. W. McCLELLAND.