(No Model.)

F. A. GIRA & F. J. ASTERLIN.

CHIMNEY COWL.

No. 441,236. Patented Nov. 25, 1890.

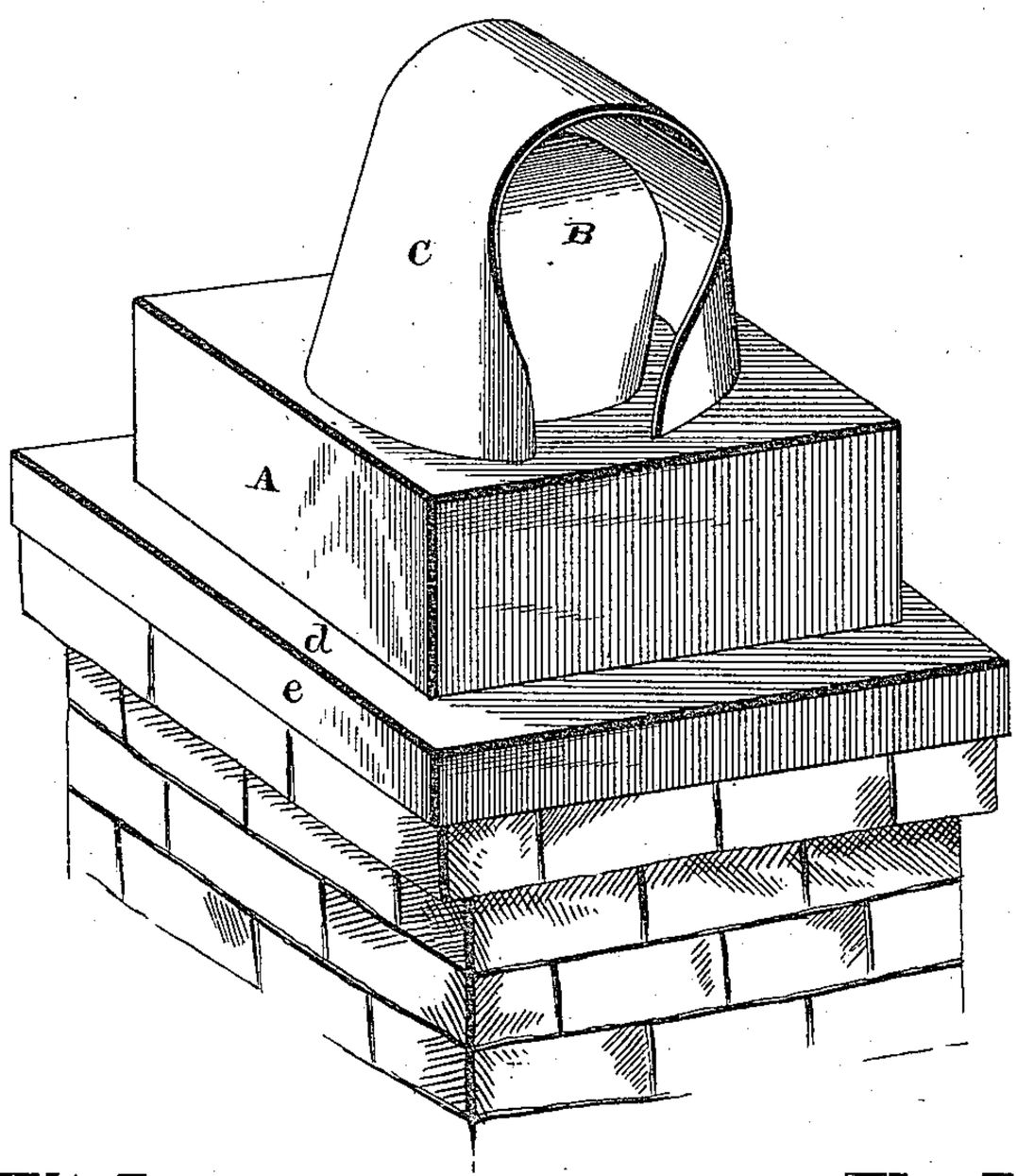


Fig. 1.

Fig. 2.

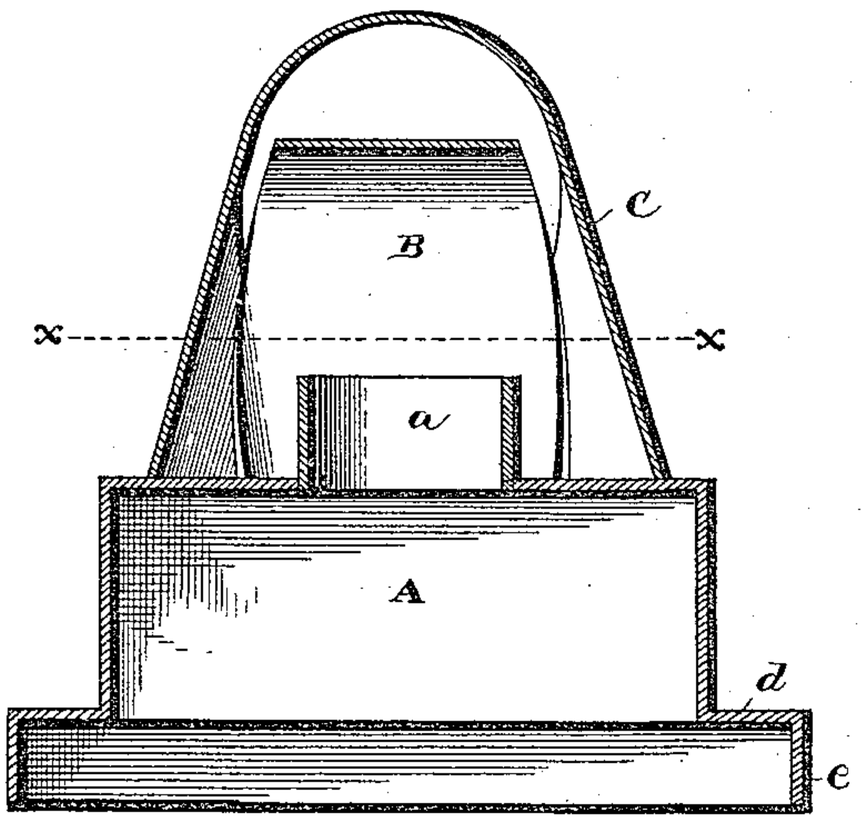
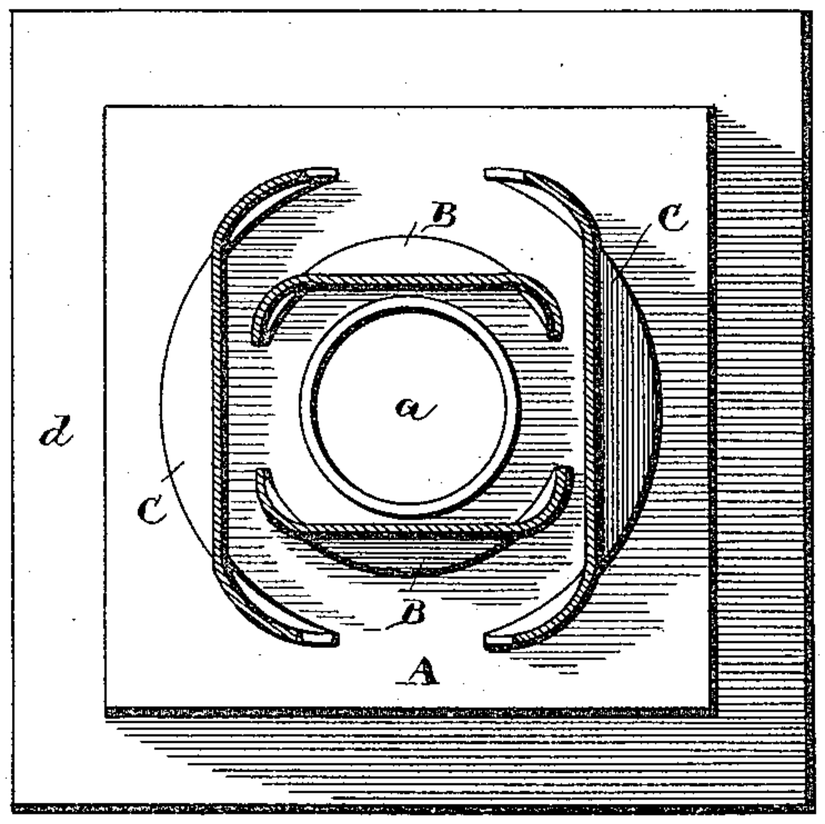


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK A. GIRA AND FRANK J. ASTERLIN, OF BELLEVUE, OHIO.

CHIMNEY-COWL.

SPECIFICATION forming part of Letters Patent No. 441,236, dated November 25, 1890.

Application filed June 10, 1890. Serial No. 354,864. (No model.)

To all whom it may concern:

Be it known that we, FRANK A. GIRA and FRANK J. ASTERLIN, citizens of the United States, residing at Bellevue, in the county of Huron and State of Ohio, have invented certain new and useful Improvements in Chimney-Cowls; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to chimney-cowls.

The purpose of the invention is to prevent back-draft in chimneys or flues and obviate the inconvenience experienced by smoke and gas being blown into the room or apartment.

A further object of the invention is to increase the draft in chimneys or flues and to guard against the counter-currents, which are the chief source of back-draft in chimneys and flues.

A still further object of the invention is to exclude rain and snow from the chimney and protect the pipe therein (provided said chimney or flue is used for heating by hot air) from water, which causes the said pipe to rust out in a short time.

The improvement consists in a cap which is fitted on the top of the chimney or flue, and which is closed in at its sides and top, save a central opening at the top of the cap, from which extends a short tube. A hood extends over this tube, tapering from the bottom to the top, and having its base portion flaring and curving in opposite directions. A second hood, larger and similarly constructed to the first-mentioned hood, is placed over the aforesaid hood and is arranged relatively at right angles thereto.

The improvement also consists of the peculiar construction and combination of the parts, which will be hereinafter more fully described and claimed, and which are shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a chimney-cowl constructed in accordance with our invention. Fig. 2 is a vertical central section at right angles to Fig. 1. Fig. 3 is a horizontal section, just above the cap, on the line $x\,x$ of Fig. 2.

The cowl is composed of the cap A, having the short tube a, and the two hoods B and C, which are placed over the short tube a and are disposed at right angles relative to each other. The cap has an exterior flange d at its lower edge and a vertical rim e depending from the outer edge of the said flange d. The flange d is intended to rest on the top of the chimney or flue, and the rim e is designed to embrace the sides of the said chimney near the top thereof and hold the cap from lateral displacement and preserve a close joint between it and the chimney. That portion of the cap above the flange d forms a prolongation of the chimney. The closed end of the cap is centrally apertured, and from this aperture projects vertically the tube a.

The hoods B and C are similarly constructed, but different as to size, the hood B being smaller than the hood C, and the smaller being arranged within the larger. These hoods taper from the base to their upper ends and curve in opposite directions at their lower ends, as shown most clearly in Fig. 3. The hood B is placed over the tube a and is sufficiently large to permit a free circulation between it and the upper end of the said tube. The hood C, considerably larger than the hood B, is placed over the hood B in such a manner that the closed sides thereof come directly opposite the open sides of the hood B. Obviously the closed sides of the hood B come opposite the open sides of the hood C. It will be observed that the hoods flare at their lower ends, which ends are secured to the top of the cap.

The operation of the invention is as follows: The cowl is secured to the chimney in the manner aforesaid, and is secured thereto in any suitable and well-known manner. In the event of the wind blowing at right angles to the hood C a vacuum will be created in the same and cause a suction in the chimney, thereby increasing the draft. Upon the other hand, should the wind be blowing parallel with the open sides of the hood C, it will pass at right angles to the open sides of the hood B and create a vacuum in said hood, which will cause an increased draft in the

chimney. Should the wind blow from any point and at any angle between the points aforesaid, it will strike the inner side of the hood C and will be deflected at right angles across the open sides of the hood B, with the result aforesaid of increasing the draft in the chimney. Hence it will be seen that it matters not from which point of the compass the wind is blowing, as the effect will be the same to increase the draft in the chimney.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A chimney-cowl comprising a cap apertured as described and two oppositely-disposed hoods, one hood placed within the other, with rounded tops and a space entirely surrounding the inner one, said hoods being contracted at their upper ends and flaring at their lower ends, which ends are wider than the top of the hoods and curve in opposite directions, substantially as specified.

2. The hereinbefore-specified chimney-cowl, comprising the cap A, having the exterior flange *d* at its lower edge and the rim *e* depending from the outer edge of the flange and having a short tube *a* projecting from an aperture in its top, and the two hoods B and C, placed over the tube at right angles to each other and having their upper ends contracted and their lower ends expanded and flaring and curved in opposite directions, the hood B being the smaller and arranged within the hood C, substantially as described, and for the purpose specified.

In testimony whereof we affix our signatures in presence of two witnesses.

FRANK A. GIRA.
FRANK J. ASTERLIN.

Witnesses:
JOHN J. LYNCH,
JAMES M. LYNCH.