

(No Model.)

C. H. L'AMOUREUX.
Chimney Cap.

No. 230,483.

Patented July 27, 1880.

Fig. 1.

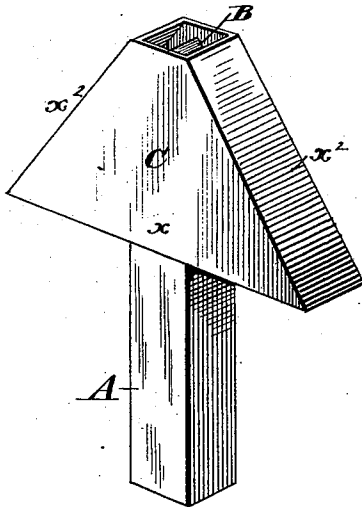


Fig. 2.

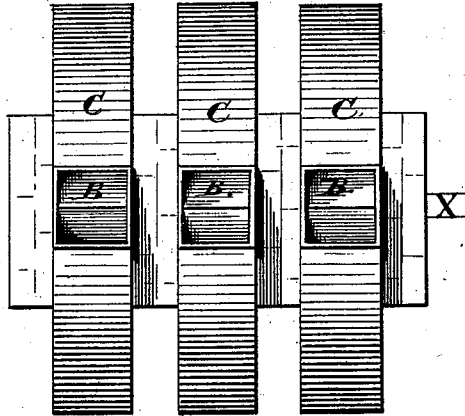


Fig. 3.

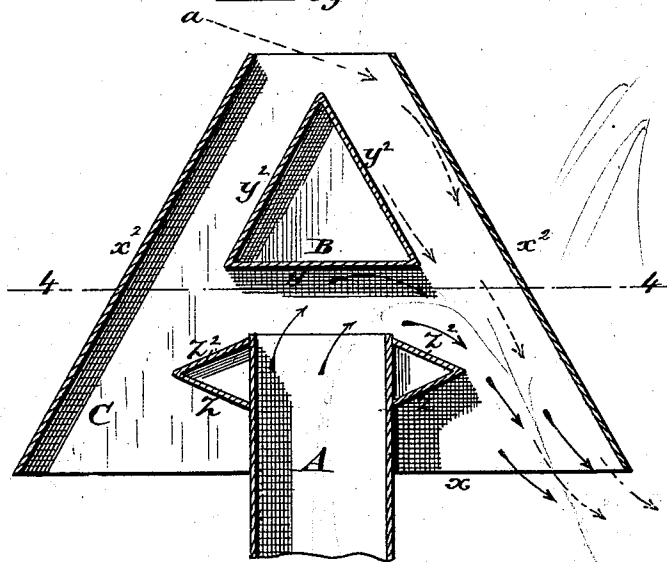
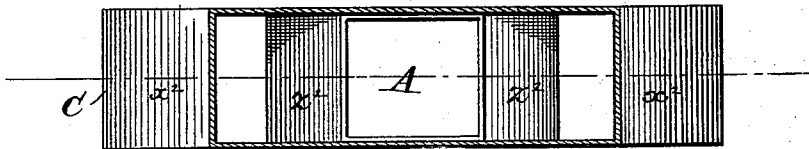


Fig. 4.

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UNITED STATES PATENT OFFICE.

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CHIMNEY-CAP.

SPECIFICATION forming part of Letters Patent No. 230,483, dated July 27, 1880.

Application filed April 19, 1880. (No model.)

To all whom it may concern:

Be it known that I, CHAUNCEY H. L'AMOUREUX, a citizen of the United States, residing at New York, in the State of New York, have
5 invented a new and useful Improvement in Chimney-Caps, of which the following is a specification.

This invention relates to devices for curing smoky chimneys; and its object is to provide
10 for said purpose an efficient non-rotary metallic cap of simple construction which can be furnished at a moderate price and will operate successfully, in sets of two or more, on chim-
neys containing several flues, as well as singly.

Figure 1 of the accompanying drawings is a perspective view of a chimney-cap illustrating my invention. Fig. 2 is a top view of a
15 chimney provided with three such caps. Fig. 3 is a vertical section of one of said caps in a plane parallel to one face thereof. Fig. 4
20 represents a horizontal section on the line 4 4, Fig. 3.

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

25 In constructing a chimney-cap according to my invention I employ a tube, A, which is fitted at its lower end to the flue of the chimney. Ordinarily this tube will be square, as in the illustration, and it will be referred to
30 herein as of this shape. At its upper end a pair of lateral projections are formed on the tube A by inclined deflector-plates $z z^2$, and an upper deflector, B, is constructed with a flat bottom, y , adapted to project laterally be-
35 yond the sides of the tube, but not beyond said projections, and with inclined sides $y^2 y^2$.

A fixed casing or cowl, C, having parallel flat sides $x x$, incloses the deflectors above described, and forms, in connection therewith,
40 ample and direct smoke and wind passages, as shown in Fig. 3, being further constructed with its top and bottom parallel and open, and with inclined lateral edges $x^2 x^2$, which are parallel, or nearly parallel, to the inclined
45 sides y^2 of the deflector B.

The casing or cowl C extends above the deflector B, so as to form a single opening at top, which tends to preclude any division of the troublesome downward currents, and to
50 insure the discharge of the whole volume of smoke in a single direction, in the manner

hereinafter set forth, said deflector being readily located at the most effective point relatively to said top opening and the top of the tube A in assembling the parts.

Said flat sides x of the casing or cowl C are
55 parallel to each other, and require no openings therein, but unite with the inclosed part with superior facility, and allow caps of this construction to be used in sets of two or more on
60 chimneys X which contain several flues, as illustrated by Fig. 2, without interfering with the operation of the respective caps.

This operation is as follows: When there is no wind the smoke rising within the tube A, 65 being protected from the direct downward pressure of the atmosphere by the inclined sides $x^2 y^2$ of the casing C and deflector B, discharges itself at the apex of the former, or, if the air be very heavy, at its bottom, and air 70 is freely admitted behind the smoke in either direction. If wind strike either inclined edge of the casing horizontally, a sufficient quantity will be deflected upward to materially aid the draft, and the cap should be set with said edges 75 in the direction of the strongest winds. If wind strike the open bottom of the casing, it will be deflected away from the bottom of the deflector B by the inclines z , and the smoke will escape freely around said deflector and 80 out of the top of the casing. If the wind strike downward, that which enters the cap will be deflected by the sides y^2 of the deflector B, or one of them, and will carry the smoke out therewith at the bottom of the casing C, 85 as illustrated in Fig. 3, in which dotted arrows indicate the currents of air and black arrows those of smoke when the wind is blowing strongly in the direction indicated by the arrow a . Ordinarily, as in this example illus- 90 trated by Fig. 3, the tendency of any wind is to carry all the smoke out at one side of the casing C at bottom or top.

The flat bottom of the deflector B affords a free escape for the whole volume of smoke 95 from the tube A laterally in either direction.

My chimney-cap is intended to be manufactured of galvanized iron or any other suitable sheet metal by ordinary methods. I also propose making it of cast-iron, in two or more 100 parts united by bolts.

I am aware that an arrangement of air and

smoke passages somewhat similar to the arrangement shown in my drawings has been formed by a combination of tubes. Said arrangement of passages, broadly considered, I do not claim.

Having thus described my invention, I claim as new and desire to protect by Letters Patent—

1. The combination, with a vertical flue-tube, A, of a fixed casing or cowl, C, constructed with parallel flat sides, converging inclined sides, and openings at bottom and top, said casing being provided with an inclosed deflector, B, having converging inclined sides and a flat bottom, the latter projecting in the direction of said inclined sides beyond the sides of said tube, and supported above the top of said tube, substantially as herein specified, for the purpose of guarding the flue against downward currents and discharging

the whole volume of smoke from the flue downwardly in either of two directions, as herein set forth.

2. The combination, with the flue-tube A, having inclined lateral deflectors $z z$, of the fixed casing or cowl C, constructed with parallel flat sides, converging inclined sides, and openings at bottom and top, and provided with an inclosed deflector, B, having converging inclined sides and a flat bottom, the latter projecting in the direction of said inclined sides beyond the sides of said tube, and supported above the top of said tube, while said deflectors z project in the same direction beyond said flat bottom of the deflector B, as herein specified, for the purposes set forth.

CHAUNCEY H. L'AMOUREUX.

Witnesses:

E. WAINRIGHT,
T. WOOLLEY.