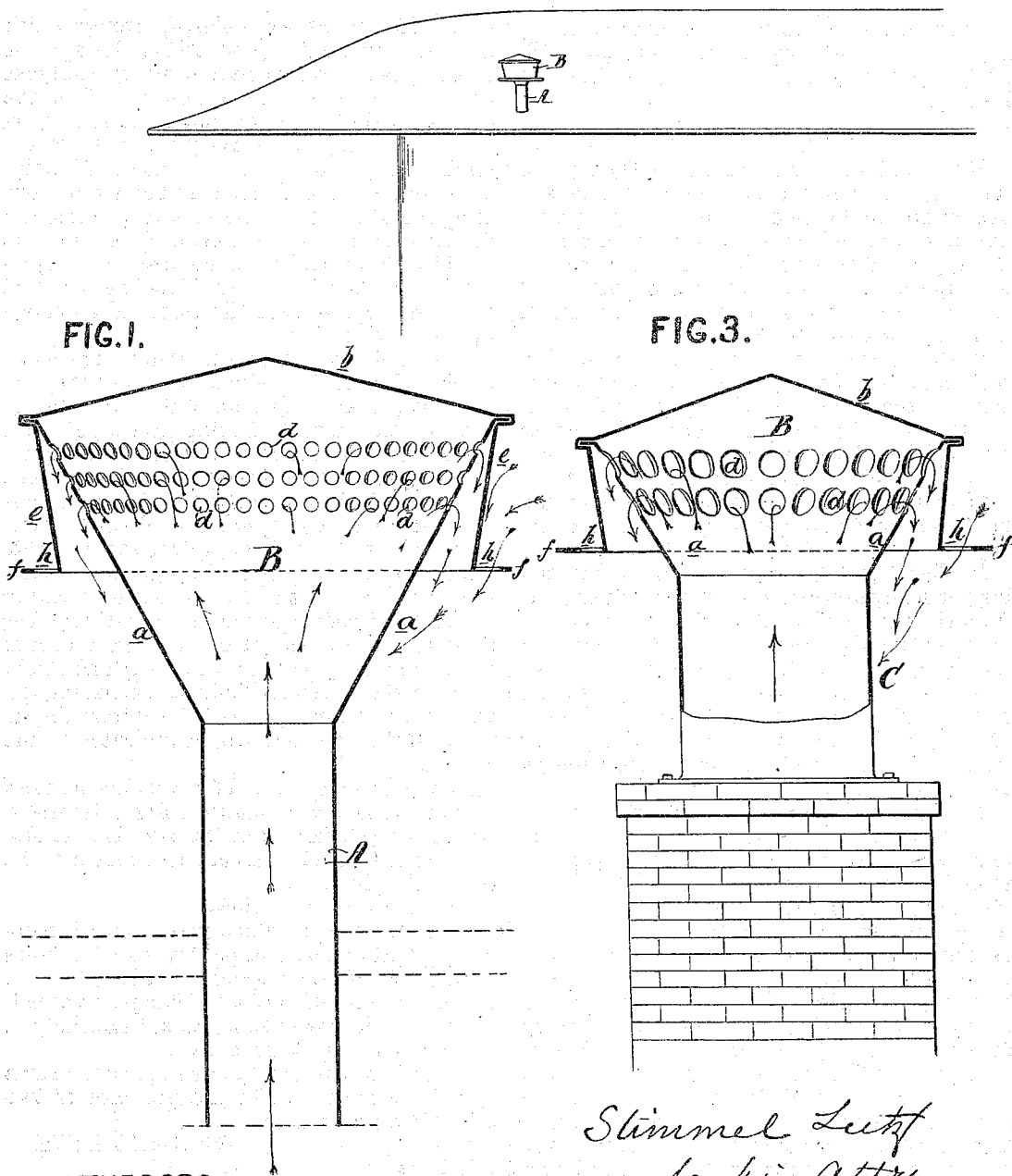


Cowl for Chimneys and Railroad Cars.

No. 122,619.

Patented Jan. 9, 1872.

FIG.2.



WITNESSES.

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Stimmel Lutz
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UNITED STATES PATENT OFFICE.

STIMMEL LUTZ, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN COWLS FOR CHIMNEYS AND RAILROAD CARS.

Specification forming part of Letters Patent No. 122,619, dated January 9, 1872.

Specification describing an Improved Chimney-Cap, invented by STIMMEL LUTZ, of Philadelphia, county of Philadelphia and State of Pennsylvania.

Improved Chimney-Cap.

My invention consists of a chimney-cap, too fully explained hereafter to need preliminary description, and applicable to chimneys generally, but designed especially for attachment to the upper end of the smoke-conductor or chimney-pipe of a street-car lamp above the roof of the car, for the purpose of increasing and of maintaining a steady draught.

In the accompanying drawing, Figure 1 is a sectional view of my improved draught-cap secured to the upper end of the chimney-pipe of a car-lamp; Fig. 2, an exterior view drawn to a reduced scale, showing the position of the chimney-pipe and cap above the roof of the car; and Fig. 3, a sectional view, representing my invention as applied to an ordinary chimney.

In Figs. 1 and 2, A represents a pipe extending vertically upward through the roof of a car from the box in which is contained the coal-oil or other lamp by which the car or a portion of the same is lighted, the object of the said pipe being to carry of the heated air or gases and smoke from the box and lamp, so that the latter may be constantly supplied with fresh air from below, and the brilliancy of the flame be thereby increased.

As this conductor or chimney-pipe has in many cases to be several feet in length, the maintenance of a steady upward current through the same has been a matter of extreme difficulty, the draught being frequently checked, owing to the imperfect nature of the caps employed, especially during the prevalence of high winds. To overcome this difficulty, and to produce a steady upward and accelerated draught, has been the especial object of my invention, which consists of a cap, B, constructed for attachment to the upper end of the chimney-pipe, as shown.

The body *a* of this cap is of the shape of an inverted frustum of a cone, flaring outward from its point of junction with the pipe to the point where it joins the top *b*, the latter being also slightly cone-shaped, although it may be upwardly-rounding or flat. The body is perfo-

rated with a number of holes, *d*, through which all of the smoke and gases rising through the chimney can escape freely, and all of these holes are covered and concealed from view from the outside of the cap by an annular shield, *e*, secured to the top of the body *a* of the cap, extending downward over the latter to a point considerably beneath the said holes *d* and terminating at its lower end in a deep horizontal flange, *f*, perforated at a point close up to the shield with a number of holes or slits, *h*. I prefer that the shield should be inclined inward to a slight degree toward its lower end, as shown in the drawing.

The shield, with its perforated flange, when combined with the inclined body *a* of the cap, not only prevents currents of air from entering the holes *d*, and thus choking the draught, but accelerates the latter and causes a strong upward current to be maintained through the chimney. This is owing to the fact that currents striking the said shield are directed downward into the angle between the same and its flange, whence they pass through the perforations or slits *h* in the latter, and, on striking the inclined body *a* of the cap, are still further deflected downward. This produces a partial vacuum in the space between the cap and shield beneath the latter, and induces a constant outward current through the holes *d* from the interior of the pipe and cap, as indicated by the arrows.

The cap, when adapted for attachment to an ordinary chimney, as shown in Fig. 3, is formed with a neck, C, flanged at its lower end, or otherwise constructed for secure attachment to the top of the chimney.

I claim as my invention—

A chimney-cap in which are combined an upwardly-flaring body, *a*, perforated with holes *d*, and a shield, *e*, covering the said holes, and having an external perforated flange, *f*, extending around its lower edge, all substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

STIMMEL LUTZ.

Witnesses:

WM. A. STEEL,
JOHN K. RUPERTUS.

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