

J. TOMLINSON.
Chimney-Cowl.

No. 159,719.

Patented Feb. 9, 1875.

Fig: 1.

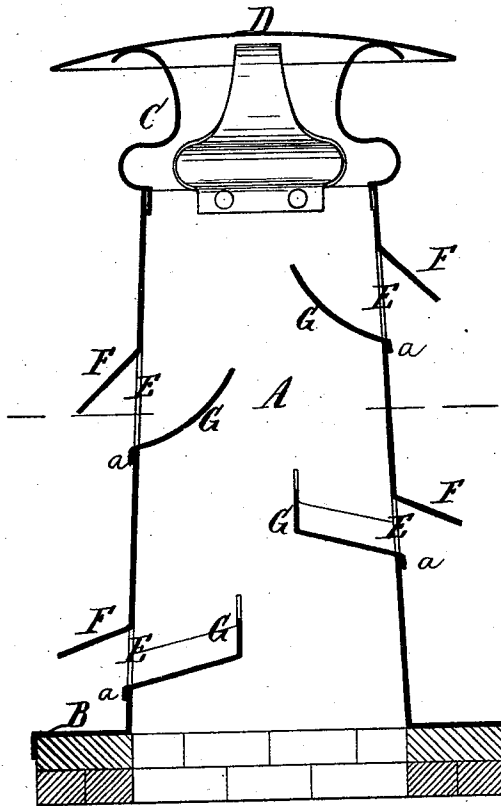


Fig: 3.

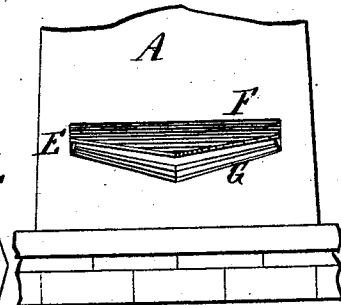
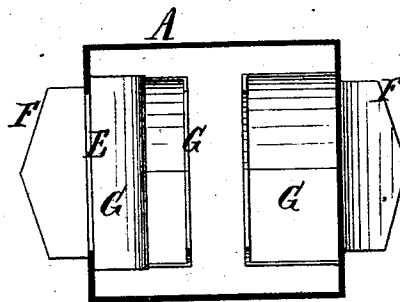


Fig: 2.



Witnesses:
Ernst Reuber.
Henry Gentner &

Inventor:
Joseph Tomlinson
per
Van Santwood & Hauff
Attys

UNITED STATES PATENT OFFICE.

JOSEPH TOMLINSON, OF MOUNT VERNON, NEW YORK.

IMPROVEMENT IN CHIMNEY-COWLS.

Specification forming part of Letters Patent No. **159,719**, dated February 9, 1875; application filed January 2, 1875.

To all whom it may concern:

Be it known that I, JOSEPH TOMLINSON, of Mount Vernon, in the county of Westchester and State of New York, have invented a certain new and useful Improvement in Chimney-Cowls, of which the following is a specification:

This invention is illustrated in the accompanying drawing, in which Figure 1 represents a vertical central section. Fig. 2 is a horizontal section. Fig. 3 represents a side view of a portion of the cowl.

Similar letters indicate corresponding parts.

Prior to this invention sheet-metal chimney-caps have been constructed with deflectors on the outside and inside, the same being formed by making a transverse slit in the cap, so as to form two members, one of which is bent outwardly and the other inwardly, the result being that the length of each deflector is equal, so that no provision is made for imparting an upward impetus to the incoming currents of air, and, as such important features have not been provided for, the currents of air are as liable to descend the chimney-cap in stormy weather as they are to ascend; and, further, such currents are as liable to enter the cap beneath the outside deflector transversely, traverse the cap part, ascend and descend, while portions escape through the openings contained in the cap at the side opposite.

To overcome such defects is the object of my invention, which consists in a chimney-cowl constructed of a flue, which is provided with a suitable cap and with a series of air-openings, from which project exterior shields and interior deflectors, by which latter a current of air striking the cowl sidewise is deflected upward and made accessory to the eduction of smoke or other products of combustion, while a current striking the cowl from above is deflected sidewise and outward. The deflectors are of a length less than the diameter of the flue, so as to create a space alongside the ends of the deflectors, as well as between their inner edges, by which the passage of smoke through the flue is materially facilitated. The deflectors are bent upward on three sides (the fourth side being secured to the flue) for

the purpose of still further facilitating the passage of the smoke, as hereinafter described.

In the drawing, the letter A designates a flue or casing, having a bottom flange, B, by which it can be secured to the top of a chimney or other place, and having top arms or branches C, which serve to support a cap or hood, D, of any suitable construction. In the sides of this flue are a series of air-openings, E, from the top edge of which, and exterior of the flue, project the shields F, which have a downward inclination, and are adapted to shed water or wind, if the latter should come in a downward direction. From the lower edge of the air-openings E project inwardly and upwardly the deflectors G, the length of which, as well as of the opening E, is less than the diameter of the flue, (see Figs. 2 and 3,) and by this means a space is created alongside the ends of the deflectors, as well as between their inner edges, through which the smoke or other products of combustion can pass with the greatest facility and escape at the top of the flue. To further facilitate this passage of the smoke I bend the deflectors upward in three directions, or on three of their sides, the fourth side being secured to the flue, so that the least possible obstruction is presented to the smoke. The deflectors represented in the lower portion of Fig. 1 and in the remaining figures are bent in the manner last described, while those represented in the upper part of Fig. 1 are simply bent in one or an inner direction. I can use one or the other of these forms, or both together, if desired, as circumstances or location may dictate.

I can form the air-openings E with the deflectors on two opposite sides of the flue A, as in the present example, or on all of its sides, if seen fit.

If a current of air strikes the cowl on either of these sides the current will enter through the openings E and be turned upward by the deflectors. A suction is thus created within the flue, and the eduction of smoke or other products of combustion from the chimney on which the cowl is placed is materially accelerated. If the current comes in a downward direction and contrives to get into the flue

from above, it will come in contact with the deflectors, and thereby be turned sidewise and outward.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, in a chimney cap or cowl having the external deflectors, F, of a width equal to the width of the air-openings, of the inwardly-projecting deflectors G, constructed to connect with the edge of the air-openings

alternately with each other, as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of December, 1874.

JOSEPH TOMLINSON.

Witnesses:

JOHN H. SNYDER,

ANDREW BRIDGEMAN.