

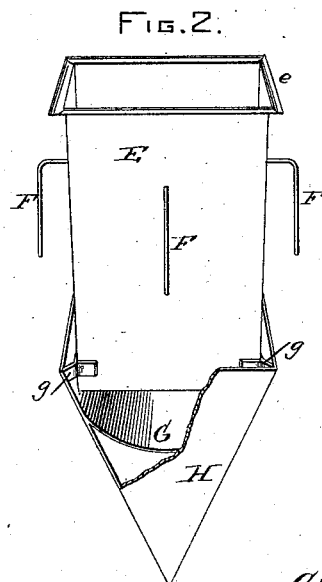
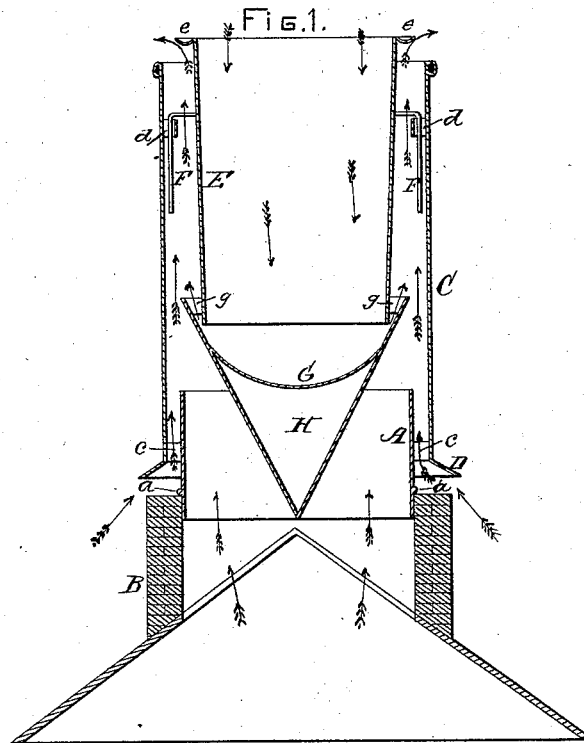
(No Model.)

C. B. LOVELESS.

CHIMNEY.

No. 301,904.

Patented July 15, 1884.



WITNESSES!

N. A. Clark.
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UNITED STATES PATENT OFFICE.

CHARLES B. LOVELESS, OF WORTHINGTON, MINNESOTA.

CHIMNEY.

SPECIFICATION forming part of Letters Patent No. 301,904, dated July 15, 1884.

Application filed March 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. LOVELESS, a citizen of the United States, residing at Worthington, in the county of Nobles and State of Minnesota, have invented certain new and useful Improvements in Chimneys; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention has relation to chimneys, and has for its object to provide devices for improving the draft of chimneys generally, and especially those located below adjacent elevations—such as higher houses, hills, &c.—as will hereinafter more fully appear.

The invention consists, essentially, in the peculiar construction of the inner or wind flue, and in the combination thereof with the outer shell or flue and the chimney, and in other improvements, as will be described and claimed.

In the drawings, Figure 1 is a vertical section of a chimney and my attachment thereto, and Fig. 2 is a detail perspective view of the wind-flue, the conical air-chamber or heater being broken away in section.

The chimney tube or extension A is provided with a rib or flange, *a*, which rests on the chimney B, and is thereby supported. The outer shell or flue, C, is made larger than the tube A, and is secured at its lower end to said tube by means of plates *c*, extended between the two tubes, and so arranged as to hold the bottom of tube C above the chimney, and provide an opening to admit the wind deflected upward by the roof. I provide this flue at its lower end with a lateral flange, D, inclined downwardly, so as to catch the wind as it rises from the roof. Eyes or loops *d* are secured on the inner side of the outer flue, near its upper end, to receive the hooks on the wind-flue E. This wind-flue E is open at its upper end, which is projected slightly above the outer flue, and it has on such end a laterally-projected convex flange, *e*, or curved upward and outward, so as to deflect the smoke rising in the outer flue outward, so that it will not be drawn into the wind-flue. This flange also serves to

prevent the descending wind from entering the outer flue, and directs it into the wind-flue. This wind-flue is provided with hooks F, adapted to be projected through eyes *d* and support the wind-flue in place, so that it may be readily removed to remove the accumulated soot, or for any other purpose desired. A dish-shaped or concave bottom, G, is secured on the lower end of the wind-flue by corner-plates *g*, so as to provide a space on all sides through which the air may pass below the end of the wind-flue. The edges of this bottom extend up on opposite sides of and slightly above the lower end of the wind-flue, as shown in Fig. 1. This bottom, being concave, directs the wind to its sides or edges, and thence into the outer or smoke flue, when it is carried up and out the upper end thereof, as indicated. I prefer to form this concave bottom with a depending conical air-chamber, H, having its lower end or apex extended into the chimney. This chamber becoming heated serves to produce a suction and draw up the smoke, as will be readily understood. The conical form of this heater serves to condense the smoke as it rises, and thereby increases the intensity of the draft.

The operation is simple, and will be readily understood. The wind blowing on the roof is blown into the outer flue or casing, under the flange D thereof, and the wind coming from above, instead of entering the chimney and causing it to smoke, blows down into the wind-flue, and striking the concave bottom is directed out on opposite sides into the outer flue, and passes upward with a strong force, producing a powerful draft. The concave bottom prevents the wind from being stopped in its downward passage, and directs it easily and quickly out at the side as desired.

By my invention the necessity of building high chimneys is obviated, resulting in a great saving, as the improvement may be made of any suitable sheet metal at a small cost, as will be readily understood.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein-described wind-flue having its upper end open, and the concave bottom

held to its lower end, and provided with a depending conical air-chamber, said flue being provided with means, substantially as described, whereby it may be removably supported in place, as and for the purposes specified.

2. The combination of the outer flue or casing having at its lower end a lateral inclined flange, and provided on its inner side, near its upper end, with eyes or loops, the wind-flue open at its upper end and provided with hooks engaging the loops in the outer flue,

and the concave bottom secured on the lower end of the wind-flue, and provided with a depending conical air-chamber extended down into the chimney, substantially as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES B. LOVELESS.

Witnesses:

L. M. LANGE,
GEO. W. WILSON.