

(No Model.)

M. LUDWIG, JAMES S. & JOHN S. BARBER.

CHIMNEY COWL.

No. 308,317.

Patented Nov. 18, 1884.

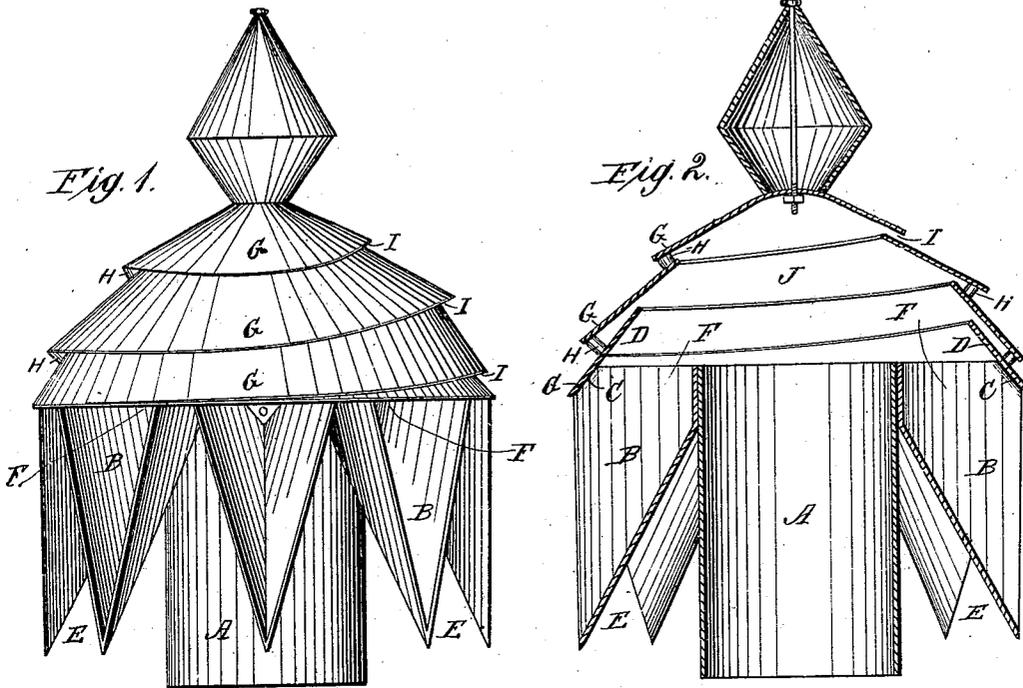
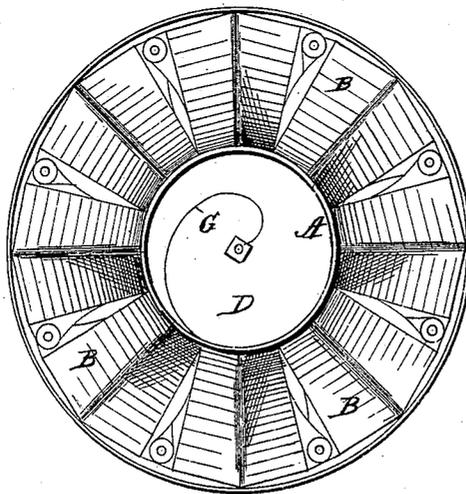


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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CHIMNEY-COWL.

SPECIFICATION forming part of Letters Patent No. 308,317, dated November 18, 1884.

Application filed December 8, 1883. (No model.)

To all whom it may concern:

Be it known that we, MARTIN LUDWIG, JAMES S. BARBER, and JOHN S. BARBER, of Beloit, in the county of Mitchell and State of Kansas, have invented a new and useful Improvement in Chimney-Cowls, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, forming part of this specification.

10 This invention consists of the novel construction, hereinafter described and claimed, whereby a stationary chimney-cowl is adapted to prevent downward currents of air in the chimney when the wind is blowing from any
15 direction whatever.

In the drawings, Figure 1 is a side elevation of our improved chimney-cowl. Fig. 2 is a vertical section of the same, and Fig. 3 is a bottom view.

20 A indicates the flue or cylinder of the cowl by which the device is to be attached to a chimney or pipe.

Attached to the upper edge of and arranged around the cylinder A is a zigzag flange, B, or series of bent plates forming such a flange, and to the shoulders C of this flange is secured a cap, D. The lower ends or points, E, of the flange project downward and outward from the cylinder A, forming passages F, leading up
30 under the cap and across the upper end of the cylinder. The cap is preferably formed of a spirally-bent plate the folds or laps G of which are connected together by supports H, consisting of blocks placed between them, to form
35 a spiral opening, I, leading nearly horizontally outward around the cap, to admit a free escape of air-current, and are so arranged as to turn water. With this construction the center of the cap is raised above the upper end of the
40 cylinder, forming a chamber, J, through which the air passes as the current is deflected up-

ward by the flange B and spiral folds G. This upward deflection of air-currents causes an upward draft in the chimney, which carries off the smoke, no matter from what direction the wind blows or upon what part of the cowl it strikes. 45

We are aware that a zigzag flange for deflecting air-currents upward has been used in chimney-cowls in connection with a close cap, or one having no openings above its base, and that a conical cap formed of a spirally-arranged plate has been used in connection with an inner close cap or hollow cone having no opening above its base. These constructions we disclaim. In our invention the cap forms a chamber, J, with the cylinder or chimney, which chamber communicates directly with the chimney-flue and with the spiral opening I in the cap, and the opening I is so formed
55 that the current of air and smoke may escape from the cap in a nearly horizontal direction, preventing any danger of the smoke being deflected down the chimney. 60

What we claim is—

65 The combination of the cylinder or chimney A, the flanges B, secured around the top of said cylinder to guide currents of air upward, and the open spiral cap D, forming an open chamber, J, communicating with the
70 flue and with the spiral opening I in the cap, said cap having blocks H arranged between its folds to form said opening, and said opening extending nearly horizontally outward through the cap, substantially as shown and
75 described.

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Witnesses:

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