J. D. McLINDEN.

Ventilating Flue-Cap.

No. 212,248. Patented Feb. 11, 1879.

Fig: 1.

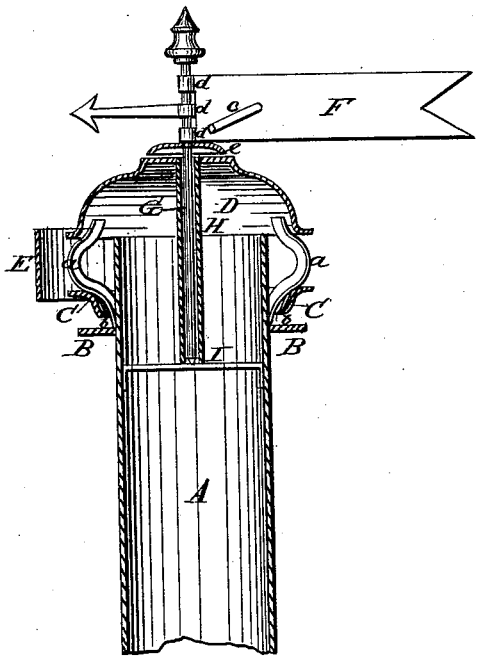
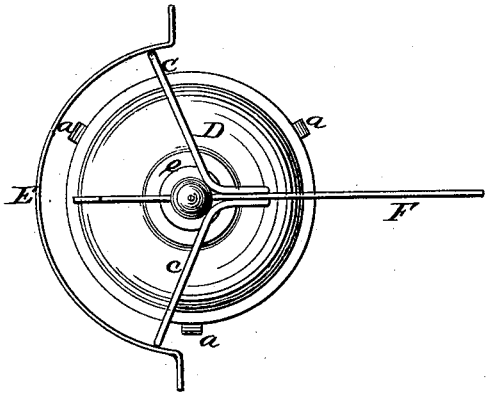


Fig: 2.



WITNESSES:

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JOHN D. McLINDEN, OF NEW YORK, N. Y.

IMPROVEMENT IN VENTILATING FLUE-CAPS.

Specification forming part of Letters Patent No. **212,248**, dated February 11, 1879; application filed January 7, 1879.

To all whom it may concern:

Be it known that I, JOHN D. McLINDEN, of the city, county, and State of New York, have invented a new and Improved Ventilating Flue-Cap, of which the following is a specification:

This invention relates to improvements on the invention for which Letters Patent No. 199,458 were issued to me on the 22d day of January, A. D. 1878.

The object of the invention is to remedy certain defects in the manner of hanging the rotary shield on the cap, whereby greater freedom of movement to suit the changing wind will be given it, and the liability to which it is subject of becoming choked by the accumulation of soot around the spindle and the supporting-washer will be entirely obviated.

The invention consists in placing the vane to which the shield is hung on a shaft incased in a tube extending from the dome to a plate in the pipe, and pivoting the end of said shaft on the plate, thus preventing the soot from reaching the shaft and its bearings, and supporting the weight of the vane and shield on the pivot, thereby decreasing the friction and other details of construction, hereinafter specifically referred to.

In the accompanying drawings, Figure 1 is a vertical section of the flue-cap and pipe, showing my improvements; and Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A is the pipe to be set on a chimney or flue. B is the ring-flange on said pipe. C is another ring-flange or deflector, supported on arms *a*, and with a space between its lower inner edge and the pipe, as shown at *b*. Arms *a* project above the pipe and support the crown or dome D. E is the rotary shield, (referred to in the Letters Patent as the "semi-tubular plate H,") which is attached to the arms *c*, extending from the vane F, so as to hang outside the dome D and deflector C, but covering the space between them.

The construction and operation of these several parts remain the same as described in the Letters Patent.

The vane F in the patent is fixed rigidly to its pivot, which is supported in the top of the dome. This arrangement has proved defective, however, on account of the soot and dust accumulating at the bearing, and also because the weight of the vane and shield causes too much friction. Both of these combined obstruct the free movement of the shield and vane, and thus interfere with the working of the cap. To remedy this I put the vane upon a shaft, G, by running it through the eyes *d* loosely like a pintle, thus allowing it a movement independent of the shaft. From the under side of the top of the dome a tube, H, extends down to a plate, I, fixed transversely in the pipe A.

The shaft G is socketed or incased in tube H, and its lower end is pivoted in the plate I, a plate or block of Babbitt metal being provided as a bearing for it.

Between the vane and the top of the dome a cup-shaped washer, *e*, is fixed to shaft G, its edges free of contact with the dome, but close to it. This washer sustains the vane, keeping it from contact with the dome, and also acts as a cover for the ends of the tube, thus preventing soot and dust from falling therein and interfering with its rotary motion. It also serves to steady the movement of the vane, preventing it from wabbling and the shaft from straining the tube and its bearing.

A set-nut should be placed on the shaft under the dome, near the under side thereof, so as to prevent the vane from being blown out by the wind.

By this arrangement it will be seen that the entire weight of the shield E and the vane is sustained by the pivot, and thus the friction is reduced to a minimum, and by incasing the shaft in the tube the soot is prevented from getting under the pivot and causing friction, and interfering with the movement of the shaft. Further, as the vane is loose on the shaft, it can move independently in case the shaft should stick. Thus there is no liability of the shield failing to move around to suit the changes of the wind.

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

1. As an improvement in ventilating flue-caps, the vane F, placed loosely on shaft G, and

sustained on the washer *e*, so as to move independently of the shaft, in combination with shield E, suspended from it, dome D, and deflecting-flange C on pipe A, substantially as described.

2. The shaft G, pivoted on plate I, and supporting the vane and shield, in combination with the incasing-tube H, plate I, and dome D, substantially as described.

3. The combination and arrangement of the vane F, hung loosely on shaft G, the shield E, shaft G, incasing-tube H, supporting-plate I, dome D, and washer *e*, substantially as described.

JOHN D. McLINDEN.

Witnesses:
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