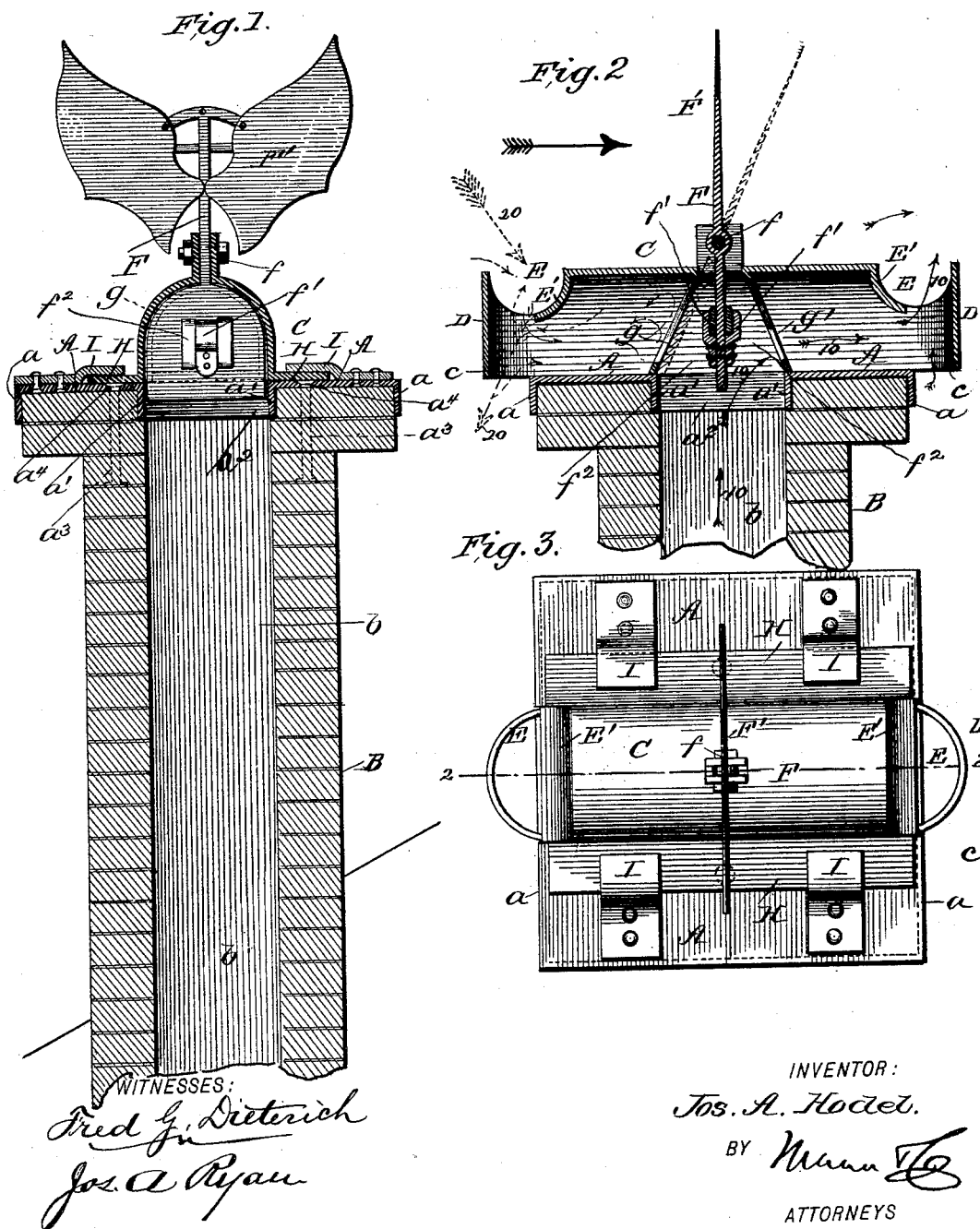


(No Model.)

J. A. HODEL.
CHIMNEY CAP.

No. 459,221.

Patented Sept. 8, 1891.



UNITED STATES PATENT OFFICE.

JOSEPH A. HODEL, OF CUMBERLAND, MARYLAND.

CHIMNEY-CAP.

SPECIFICATION forming part of Letters Patent No. 459,221, dated September 8, 1891.

Application filed July 13, 1891. Serial No. 399,420. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. HODEL, residing at Cumberland, in the county of Allegany and State of Maryland, have invented certain new and useful Improvements in Chimney-Caps, of which the following is a specification.

My invention relates to that class of chimney-caps in which a vibrating valve is employed which automatically adjusts itself to prevent the downward draft, and it has for its object to provide a cap of this character which will be simple and cheap in its construction and effective for its desired purpose; and it consists in the peculiar combination and novel arrangement of the several parts, all of which will hereinafter be fully described in the annexed specification and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical transverse section of my improved chimney-cap. Fig. 2 is a longitudinal section on the line 2 2, Fig. 1; and Fig. 3 is a top plan view of the same.

In the drawings, A indicates the base-plate, which is formed with downwardly-projecting flanges a a' , the inner ones a' of which are formed at the edges of a central opening a^2 , which corresponds to the flue-opening b in the chimney-wall B, said flanges a' lapping the edges of said opening, as shown, while the outer flanges project down over the outer edges of the chimney, whereby the said plate is firmly held on the top of the chimney-wall, being further secured thereto by the anchor-bars a^3 a^3 , which pass through apertures a^4 a^4 in the base-plate and are firmly held in the brick-work, as shown.

The cap portion proper consists of an inverted-U-shaped body portion C, which is firmly held to the base-plate by means of brackets or keepers I I on the base-plate, which engage the lateral flanges H H on the body C in a manner most clearly shown in Fig. 1 of the drawings.

By reference to Figs. 2 and 3 it will be seen that the ends of the cap C are curved out over the ends of the base-plate, whereby draft-openings c c and E E are formed, the upper ones E E of which open onto downwardly-

curved portions E' E', formed on the upper face of the cap C, for a purpose presently explained.

F indicates the vibrating valve, which is pivoted at f in the cap-plate, centrally over the flue-opening b , the lower end of such valve being shaped to fit the interior of said cap and extended down into the said flue b , while the upper or outer end is formed into a vane F', as shown.

g g' indicate flanges formed on the inner face of the cap C, against which the valve F abuts when shifted by the wind, such flanges serving as a means for preventing any draft of wind which might pass by the edges of the valve from entering the chimney-flue.

In operation, should the wind be blowing in the direction indicated by the arrow in Fig. 2 the valve will be shifted to the position shown in dotted lines, thereby effectually closing the forward or windward end of the cap, the pressure of the wind against the vane F' serving to hold the valve against the flange g . Now as the wind blows over the vane F' it causes a strong draft in the direction indicated by the arrows 10 and causes the smoke to pass out through the opening E in the outer end, which in turn creates an additional updraft through the opening c c below it. By closing the ends of the cap, as stated, it will be seen that a direct blast of wind is deflected and prevented from entering the cap, and by forming the depressions or curved portions E' E' in the top of the cap adjacent the openings E it will be observed that should the wind be blowing in a downward direction, as indicated by the arrows 20, it will strike such curved or depressed portions and be deflected through the openings E and c , as shown in Fig. 2.

To provide means for readily increasing or decreasing the weight of the vane F', I provide it on each side with bracket-pieces f'' , in which are detachably held weights f^3 , the ends of which are chamfered, as shown. Such weights in practice are made of light spring-steel and take up but little room.

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

1. In a chimney-cap, the combination of the

base-plate A, having a central flue-aperture a^2 , the cap portion C, secured to the base-plate and projected over the edges thereof, openings E, formed in the upper face of said portion near the outer ends, and a vibrating valve pivoted in said cap portion centrally over the flue-opening a^2 , all arranged as and for the purpose described.

2. A chimney-cap comprising a base-plate 10 A, having a central flue-aperture a^2 and adapted to be anchored on the chimney-top, an inverted- \cap -shaped cap C, having curved ends D secured to the base-plate and projected over the edges thereof and provided 15 with discharge-openings E E in the outer ends of the upper face thereof, and a vibrating valve pivoted in said cap C centrally over the aperture a^2 , and the flanges or stop-plates $g g'$, formed on the inner face of the cap-plate, 20 substantially as and for the purpose described.

3. In a chimney-cap, the combination, with the chimney, of the base-plate A, having flanges aa' fitting the chimney-flue and edges and formed with central flue-aperture a^2 , the 25 retaining brackets or plates I I, the inverted semicircular cap portion C, having lateral flanges H H, adapted to fit under the plates I I and curved ends D and formed with concaved depressions $E' E'$ in the upper face adjacent the end plates, openings E, formed in 30 said concaved portions and with stop-flanges $g g'$ on its inner face, a vibrating valve pivoted in said cap C centrally of said flanges $g g'$ and arranged, when vibrated, to swing 35 against said flanges, substantially as and for the purpose described.

JOSEPH A. HODEL.

Witnesses:

F. M. OFFUTT,
WM. GARDNER.