

Chimney Top.

No. 62,578.

Patented March 5, 1867.



Witnesses:

W. F. Hall
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Inventor:

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United States Patent Office.

FRIEDRICH VILLARD, OF MOUNT EATON, OHIO.

Letters Patent No. 62,578, dated March 5, 1867.

REVOLVING CHIMNEY TOP.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, FRIEDRICH VILLARD, of Mount Eaton, in the county of Wayne, and State of Ohio, have invented new and useful improvements in Revolving Chimney Tops; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawing, making part of this specification, in which—

Figure 1 is a vertical section of a chimney and my improved top, the plane of the section through the chimney being represented by the red broken and dotted diagonal of fig. 2.

Figure 2 is a top view of the chimney with the revolving top removed, and showing the cap-plate and other parts to be described.

A is a metal cap-plate, resting on the top of the chimney, and is provided with a flange projecting downward from each of its four edges in order to prevent lateral displacement. It is still more securely held in position by the rods B B, which at their lower ends are firmly attached to anchors C C, built in the masonry of the chimney, across the angles of the flue, and from which they rise along the angles of the flue and pass through holes in the plate A, which is held down by nuts *a a*, on their upper ends, which are threaded for the purpose. Additional strength is thus given to the masonry and all danger of injury by the force exerted by the wind against the revolving top precluded. In fig. 2 the outline of the masonry is shown in full red lines, and the positions of the anchors C C in red dotted lines. A circular opening in the centre of the plate A is bounded by the rim or flange D, slightly conical, projecting up from the surface of the plate. From this flange converge the arms *b b*, supporting the socket E and spindle-step F, which receives and sustains the spindle G of the revolving top. The plate A, with the flange D, arms *b b*, and socket E, are all cast in one piece. The spindle-step F is a tube, having its lower end closed, and it passes down through the socket E, which it fits tightly, and upon which it rests by a shoulder, as seen in fig. 1. The diameter of the bore of the spindle-step is such as to permit the spindle G to turn freely within it, and near its upper end increases by a conical spread to a greater diameter. The spindle G is cylindrical for nearly its whole length, and has a conical enlargement, *c*, to correspond with the form of the bore of the step F. The cone *c* also forms a partial bearing for the spindle, and the space *d* above it, and between the surface of the spindle and the inside of the larger part of the step, forms a reservoir for lubricators. The spindle G is secured by a screw and nut, *e*, to the socket *f*, connected by arms *g g* to the circular collar H, (see fig. 1.) This collar is somewhat greater in diameter than the flange D, over and around which it passes like a sleeve, and it has a horizontal flange, *h*, projecting outward from its lower edge. From its upper edge rises the sheet-metal top, composed externally of two cylinders, I and K, meeting each other at right angles. The horizontal cylinder K is slightly increased in diameter at one end, and has attached to its upper side, at the enlarged end, a vane, L, of thin sheet metal. Within the cylinder K is a cylinder, M, of smaller diameter, connected with the cylinder K at that end which is most nearly over the spindle G, by the conical frustum N, thus making a funnel through which the air may pass into the cylinder M and out through the cylinder K, the funnel end of the cylinders K and M being always kept to the wind by the vane L on the opposite end of K. The spindle G is so adjusted in the socket *f* that it shall rest upon its bearings in the step F, while the collar H shall not be in contact with the plate A. On each of the rods B B are buttons *i i*, which project over without touching the flange on the bottom of the collar H, and serve to prevent the light metal top from being lifted out of its position. The buttons *i i*, moreover, serve as washers between the plate A and the nuts *a*.

Having thus fully described my improvements, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The arrangement and combination of the plate A, constructed substantially as described, with the rods B and anchors C, when used on the masonry of a flue or chimney for the purpose of giving stability to the same, as set forth.

2. The combination of the spindle G and collar H, with the step F and socket E, constructed, arranged, and operating substantially as and for the purpose set forth.

FRIEDRICH VILLARD.

Witnesses:

JAMES HUSTON.

EMANUEL NICOLET.