(No Model.)

J. H. REYNOLDS.

VENTILATOR.

No. 383,592. Patented May 29, 1888.

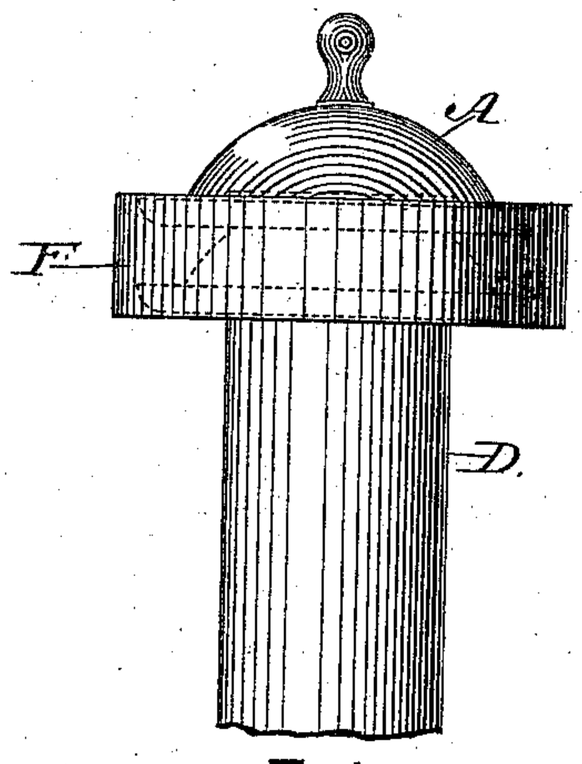

FIG. 1.

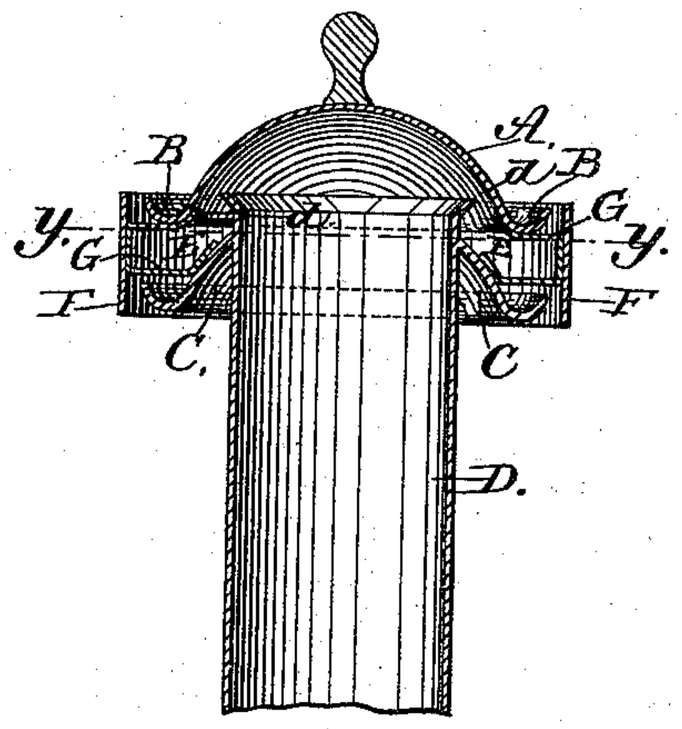

FIG. 2.

FIG. 3.

FIG. 4.

Witnesses:

S. B. Brewer,

W. W. Bladt.

Inventor:

JOHN H. REYNOLDS,

by William H. Low,

Attorney.

UNITED STATES PATENT OFFICE.

JOHN H. REYNOLDS, OF TROY, NEW YORK.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 383,592, dated May 29, 1888.

Application filed March 3, 1888. Serial No. 266,026. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. REYNOLDS, of Troy, in the county of Rensselaer and State of New York, have invented new and useful Improvements in Ventilators, of which the following is a specification.

This invention relates to improvements on the ventilator for which Letters Patent of the United States, No. 174,304, were granted to Andrew J. Robinson on the 29th day of February, 1876; and the object of my invention is to remedy certain defects in the operation of that construction, which is particularly noticeable when those ventilators are applied to use on railway-cars, it being found that when used for that purpose, and with the cars moving at a high rate of speed, dust and smoke are liable to pass through said ventilators and into the car, to the discomfort of persons in said car.

In the accompanying drawings, which are herein referred to and form part of this specification, Figure 1 is a side elevation of my ventilator. Fig. 2 is a vertical section of my ventilator at the line X X on Fig. 3. Fig. 3 is a plan view of Fig. 1, and Fig. 4 is a horizontal section at the line Y Y on Fig. 2.

As represented in the drawings, A designates the upper member of the cap of my ventilator, which is made in a dome-like form, with its lower edge turned, by a reversal of the curve, to form an annular gutter, B, whereby water and dust which fall upon the dome will be caught and retained from passing into the opening of the cap.

C is the lower member of the cap, which is made substantially in the same form as the upper member, but with the central part of the dome cut out for the reception of the pipe D, which projects through the upper face of said lower member to form a standing rim, *d*, which forms a barrier to obstruct the passage of dust into the pipe D and to deflect the dust away from said pipe. The upper member, A, is fixed directly above the lower member, C, so that the two will be substantially parallel with each other, and so that a circumferential opening, E, will be left between them.

F is a belt or band which is fixed concentrically around the cap of the ventilator and at such distance from the outer edges of said cap as will permit a free flow of air from the opening E. Said belt forms a shield around the opening E, to prevent the air-currents from entering said opening, and in order to produce the best effect said belt should have sufficient width to project a little above and below the outer edges of both the upper and lower members of the cap.

G designates the brackets, which are secured to the members A and C for the purpose of holding said members in position at the required distance apart. Said brackets protrude through the opening E, and to their protruding ends the belt F is secured in position opposite to the opening E, so as to form an annular opening between said belt and the outer edges of the upper and lower members of the cap, as shown in the drawings.

The pipe D is extended upward through the dome of the lower member, C, and preferably the upper end of said pipe is provided with a flaring flange or bell-mouth, *d*, whose upper end will extend above the level of the lower side of the gutter B of the upper member, A, and thereby I am enabled to exclude all dust, rain, snow, and smoke from passing into the pipe D, said bell-mouth serving as a deflector for throwing such particles downward toward the dome of the lower member, from which they will be removed by the transverse air-currents which pass through the opening E. When preferred, the bell-mouth *d* may be omitted, so that the upper end of the pipe D will form a cylindrical standing rim, whose upper end should be carried upward to the position above described for said bell-mouth.

I claim as my invention—

In a ventilator-cap, the combination of two dome-like members—having substantially the same form—fixed one above the other to produce a circumferential opening between them, and the convex faces of both members being fixed uppermost, a ventilator-pipe which passes centrally through the lower dome to form a cylindrical standing rim whose upper end is above the level of the under side of the gutter of the upper member, and a belt which concentrically surrounds said cap opposite to said circumferential opening, as and for the purpose herein specified.

JOHN H. REYNOLDS.

Witnesses:
WM. H. LOW,
S. B. BREWER.