

L. A. KLING.
CAR VENTILATOR.
APPLICATION FILED FEB. 6, 1912.

1,046,309.

Patented Dec. 3, 1912.

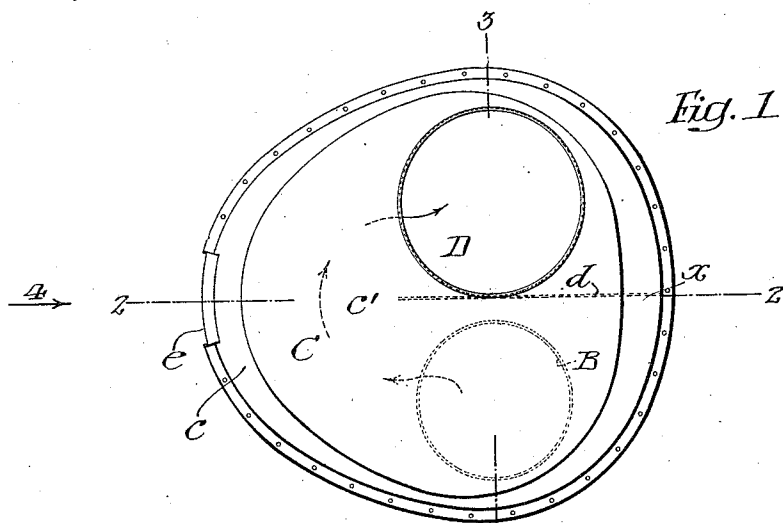


Fig. 1.

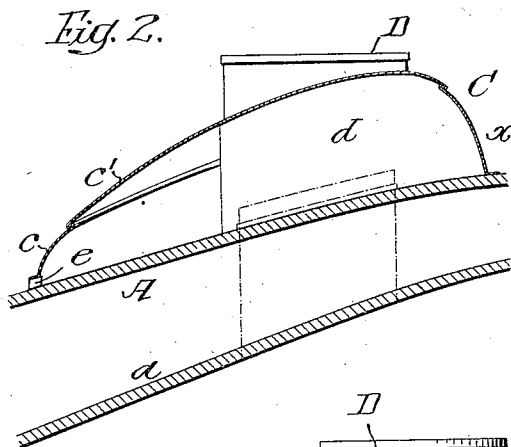


Fig. 2.

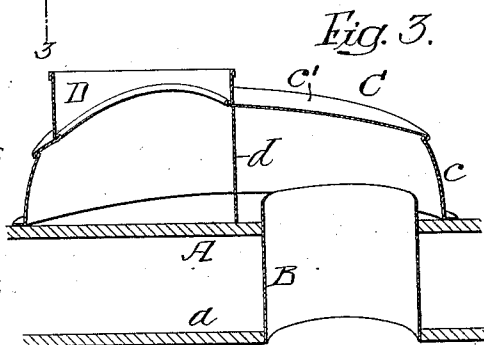


Fig. 3.

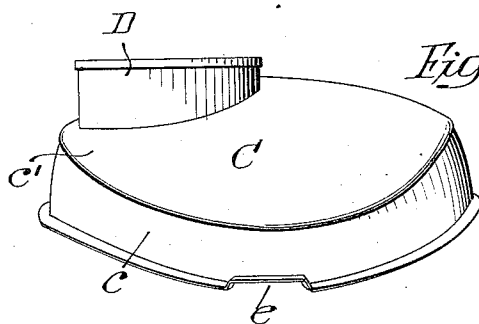


Fig. 4.

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UNITED STATES PATENT OFFICE.

LOUIS A. KLING, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO THE J. G. BRILL COMPANY,
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CAR-VENTILATOR.

1,046,309.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOUIS A. KLING, a citizen of the United States, residing in Elizabeth, county of Union, State of New Jersey, have invented certain Improvements in Car-Ventilators, of which the following is a specification.

The object of my invention is to construct a simple and effective ventilator, particularly adapted for use on railway cars and other vehicles.

In the accompanying drawing:—Figure 1, is a plan view of my improved ventilator; Fig. 2, is a sectional view on the line 2—2, Fig. 1; Fig. 3, is a sectional view on the line 3—3, Fig. 1; and Fig. 4, is an edge view looking in the direction of the arrow 4, Fig. 1.

A is the roof of the car and *a* is the ceiling panel under the roof. Usually there is a clear space between the two, but this may vary according to the type of car to which the ventilator is applied.

B is a flue extending through both the ceiling panel and the roof, as shown in Fig. 3, and projects a distance above the roof, as shown in said figure, so as to prevent any water, which might gain access to the space inclosing the upper end of the flue, from passing into the body of the car. The lower end of the flue may be entirely open, as shown, or may have an ornamental grating secured thereto, if desired.

C is the casing of the ventilator, made in two parts *c* and *c'* in the present instance, and shaped as clearly shown in the drawings. The part *c* of the body C forms the wall of the ventilator. The part *c'* forms the cover or top of the ventilator and the roof A forms the base. The two parts *c*—*c'* are preferably secured together by beading, although the joint may be so formed that the top *c'* can be detached in order to gain access to the entire interior surface of the ventilator.

d is a partition extending from the point *x*, Fig. 1, to a point past the flue B, as clearly shown in Figs. 1 and 2. The flue B extends up into the space on one side of the partition, as shown in Fig. 3, and the outlet pipe D extends from the cover *c'* of the ventilator body C on the opposite side. When a suction is created the air is drawn from the

body of the car through the flue B around the partition *d* and out through the pipe D.

It will be noticed upon referring to Fig. 2, that the roof A of the car which forms the base of the ventilator is inclined and at the lower end of the ventilator casing is a drip opening *e* to allow any water, which may gain access to the interior of the ventilator, to pass out through the said opening. The partition *d* will prevent the rain, which would pass through the pipe D, from entering the flue B and when the water accumulates on the car roof within the ventilator it travels down the inclined roof to the drip opening *e*.

This type of ventilator is simple in construction; can be readily applied; being low is not liable to be injured; and is within the maximum limit of the car.

I find, by experiments, that a ventilator constructed in this manner will draw the foul air from the interior of the car when the car is moving in either direction, or at rest, and, as the ventilator has no adjustable parts, it will operate under all conditions without attention. Furthermore, the design of the ventilator is such that it is entirely open at all times and is so constructed that rain or snow cannot interfere with its proper working.

It will be noticed that the body of the ventilator is rounded and curved, as clearly shown in Figs. 1 and 2, so that water will not accumulate on the body portion and, the construction being low, does not detract from the appearance of the car.

I claim:—

1. The combination in a car ventilator, of an inclined roof for a car forming a base; a low body inclosing a portion of the inclined roof and having a vertical partition in the upper portion of the inclosure and terminating at a point about the middle of the inclosure; the top of the body portion having an outlet opening communicating with the inclosure on one side of the partition; the roof having an opening communicating with the interior of the car and also communicating with the inclosure on the other side of the partition.

2. The combination in a car ventilator having a low body portion arranged on the

inclined roof of a car; said roof forming
the base of the ventilator; a centrally ar-
ranged vertical partition extending from
the upper end of the ventilator to a point
5 past the center thereof; a flue communicat-
ing with the inclosure on one side of the
partition and also communicating with the
interior of the car; said flue extending above
the base and on the opposite side of the
10 partition and at the top of the ventilator;
the parts being so arranged that the foul

air as it exhausts must pass around the par-
tition; said casing being provided with a
drip opening at its lower end.

In testimony whereof, I have signed my 15
name to this specification, in the presence of
two subscribing witnesses.

LOUIS A. KLING.

Witnesses:

WM. E. SHUPE,

WM. A. BARR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
