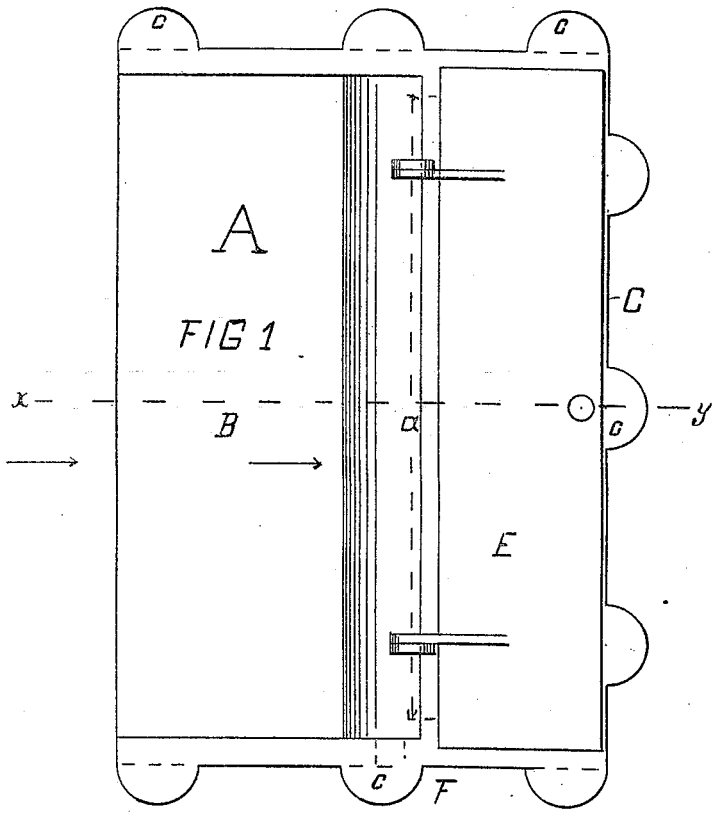
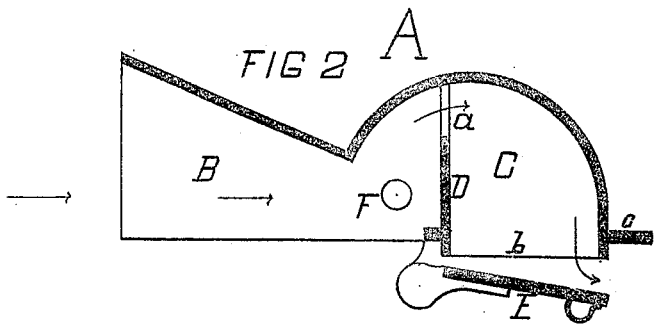
P. T. KESTER.

CAR-VENTILATOR.

No. 191,349. Patented May 29, 1877.





WITNESSES:

Alex. J. Diamond

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UNITED STATES PATENT OFFICE.

PERRY T. KESTER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CAR-VENTILATORS.

Specification forming part of Letters Patent No. **191,349**, dated May 29, 1877; application filed April 30, 1877.

To all whom it may concern:

Be it known that I, PERRY T. KESTER, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Ventilator for Railway-Cars, which improvement is fully set forth in the following specification and accompanying drawing, in which—

Figure 1 is a side elevation; and Fig. 2, a transverse section through the line *x y*, Fig. 1.

The invention is more particularly intended for admitting fresh air and removing the vitiated atmosphere of freight-cars employed in the transportation of perishable freight, like fresh fruits and meats.

The ventilator A consists of an open-mouth funnel, B, which connects with a drum, C, by means of an air-passage, *a*, formed vertically in the rear part of the diaphragm D. The opening *b*, or valve-seat for the passage of the air from the drum to the interior of the car, is provided with a valve, E, which can be opened or closed to any desired extent. The attachment of the ventilator to the outside of the car is made by the bolt-lugs *c*, the car being cut away between the roof and the belt-waist for letting in the projection-flange *b*, which forms the seat of the valve E, opening inwardly.

Two ventilators should be placed on each side of a car, their open mouths extended oppositely to the ends of it, so as to form a current of air whether it be running backward or forward.

The air, as indicated by the arrows, passes in the open-mouth funnel B, impinges the diaphragm D, is deflected through its opening *a* into the drum C, and admitted by the valve-seat *b* into the car. After being diffused it is drawn off and passed out the ventilators at the opposite or rear end. The quantity of air which passes through the forward ventilator of each side depends upon the speed at which the car is moving and the extent of the valve-opening. The diaphragm D serves for a fender in stopping the passage of rain. The opening *a* can be protected by a wire-gauze from the ingress of sparks, and thus guard against the risk of accident by fire. An opening, F, in the bottom of the ventilator drops any rain-water, dust, or cinder stopped by the deflector D from entering the chamber C.

I claim as my invention—

The ventilator A, composed of the funnel B, drum C, diaphragm D, and the valve E, as shown and described.

In testimony whereof I hereunto sign my name in presence of two subscribing witnesses.

PERRY T. KESTER.

Witnesses:

FRANCIS D. PASTORIUS,

W. W. DOUGHERTY.