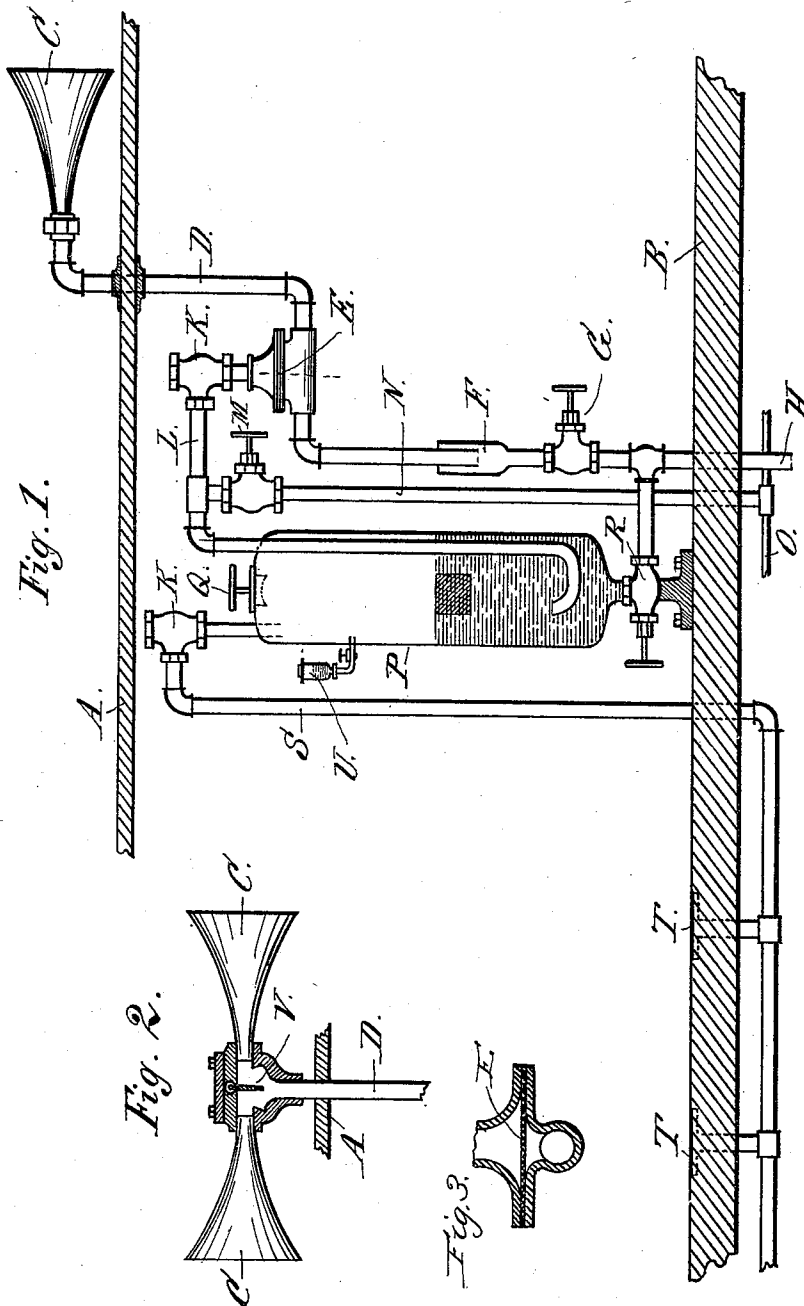


(No Model.)

S. W. EVANS.
CAR VENTILATOR.

No. 506,987.

Patented Oct. 17, 1893.



WITNESSES:

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SAMUEL W. EVANS, OF NEW ORLEANS, LOUISIANA.

CAR-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 506,987, dated October 17, 1893.

Application filed November 30, 1892. Serial No. 453,682. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL WILKINSON EVANS, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Car-Ventilators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in a ventilator for railway passenger cars, and its novelty will be fully understood from the following description and claim, when taken in connection with the annexed drawings.

The objects of my invention are to thoroughly ventilate a railway passenger car and to exclude therefrom dust, cinders and smoke, and at the same time reduce or increase the temperature in a car. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional side view. Fig. 2 is a sectional view illustrating a modified form of receiver, and Fig. 3 is a detail section illustrating the netting for straining the air.

Similar letters refer to similar parts throughout the several views.

In the drawings A designates the top of an ordinary passenger car; B, the bottom of same; C, a flaring or funnel shaped receiver attached by suitable means to a pipe D.

E designates a screen composed of wire netting and F a cinder receiver.

G is a valve, and H an outlet for discharging cinders or water.

K are check valves; L, a pipe leading into a water reservoir.

M is a valve, and N an air pipe connected to the air pipe O of an air brake.

P is a reservoir partially filled with water, and in which there may be placed ice or any other desired cooling substance.

Q is an opening of reservoir P; R, a valve which regulates the discharge outlet from reservoir P, and enables waste water or any residue in reservoir to be let out through outlet H.

S is an air pipe for purified air, and T are perforated openings in the bottom of car for admitting purified air.

U is a reservoir for perfumery, and by means of which the water in reservoir P may be saturated with perfumery.

V in Fig. 2, is a pivoted valve between the flaring or funnel shaped receivers C'. Thus for instance should air be driven in either end of car, or either end of receiver the force of the air drives the pivoted valve V against the small end of the opposite ventilator.

In practice my apparatus is attached in one end of the car. The reservoir P is partially filled with water. When the car is in motion the air enters C, descends through D, passes through wire netting E,—the netting preventing to a certain extent the flowing upward of the cinders and dust, the two latter descending into reservoir F. The air thus relieved of the dust and cinders passes up through pipe L, thence down through pipe L into the reservoir P, upward through water and out through pipe S. After having passed through the iced water, the temperature being lowered naturally causes a very low temperature when discharged in the car, and by this means I am enabled, when the car windows are down, to so reduce the temperature of a car, even in mid-summer, that it will be unnecessary to raise the car windows for fresh air, and making a car more comfortable than can be done by any other means heretofore known.

Should it be required that the water in reservoir P be discharged, by simply turning the valve R the water is let out through pipe H. Should it be necessary to get any additional air pressure by means of the pipe O leading from air cylinders of air brakes under the car, by turning valve M a pressure is thrown into pipe L.

A striking advantage of my invention is that I am enabled at a very slight cost to ventilate a car and exclude all the dust and cinders therefrom, and at the same time to reduce the temperature to a much lower degree inside of the car than can now be done by any known means. Where private cars are used, the air coming in through openings T may be charged with perfumery, or any other desired odor or form of perfumery.

Having described my invention and the manner in which the same is or may be carried into effect, I would say in conclusion that

I do not confine myself to the precise details shown in illustration, as the same may be varied to some extent; but

What I claim, and desire to secure by Letters Patent, is—

5 In a ventilating apparatus, the combination of the reservoir P, the receiving funnel or collector, the pipes D and L connecting the funnel and the reservoir, a trap arranged between
10 the pipes D, and L, having the screen E, the cinder receiver F connected to the trap, the

cinder receiver discharge pipe, the valved water pipe leading from the reservoir to the cinder discharge pipe, and means for carrying the air from the said reservoir into a car, 15 as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL W. EVANS.

Witnesses:

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