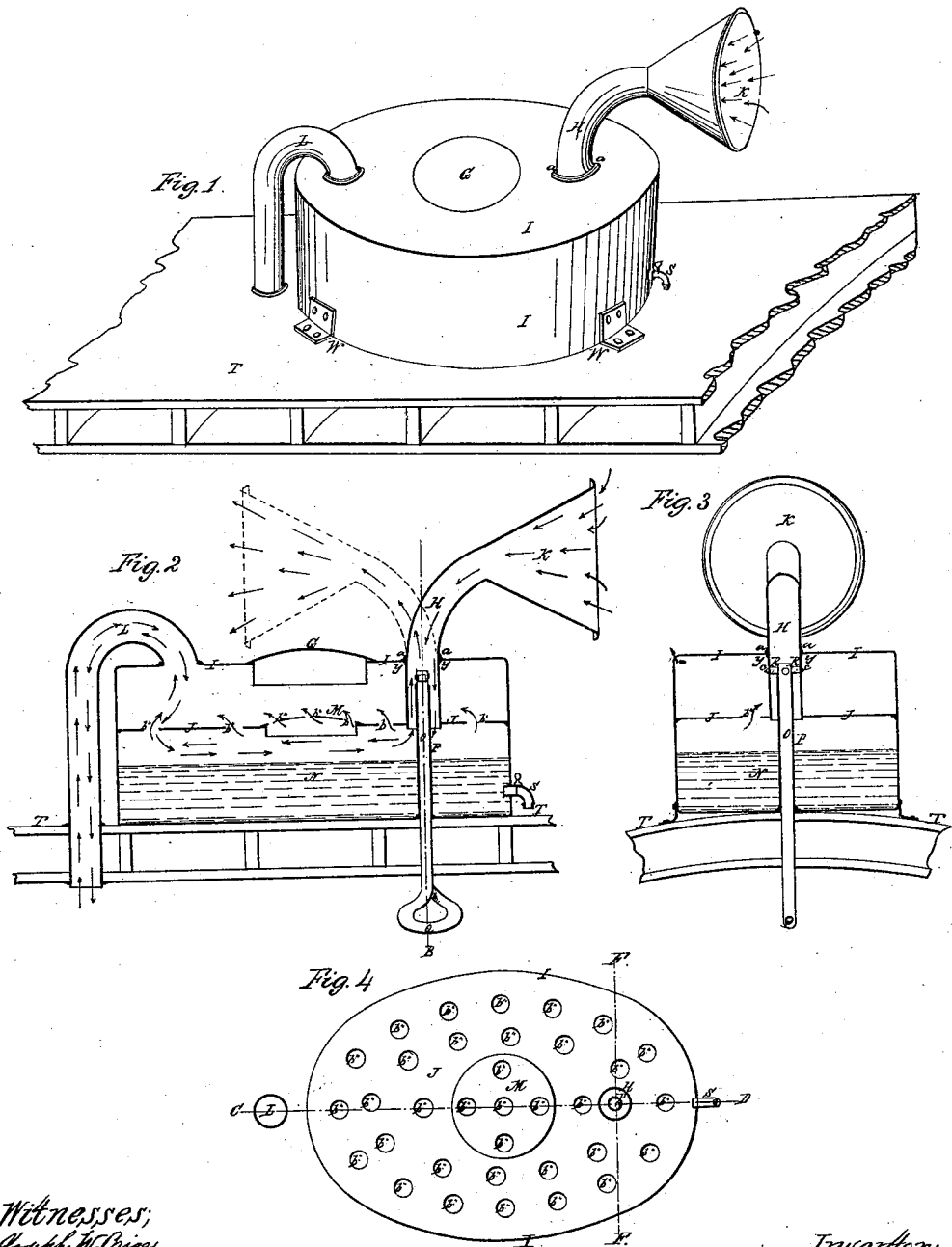


*L. C. Beardsley,
Car Ventilator,*

No 33,565.

Patented Oct. 29, 1861.



*Witnesses;
Joseph W. Briggs
James H. Bennett*

*Inventor;
Lester C. Beardsley*

UNITED STATES PATENT OFFICE.

LESTER C. BEARDSLEY, OF CLEVELAND, OHIO.

IMPROVEMENT IN VENTILATORS FOR RAILROAD-CARS.

Specification forming part of Letters Patent No. 33,565, dated October 29, 1861.

To all whom it may concern:

Be it known that I, LESTER C. BEARDSLEY, of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and Improved Ventilator to be Used for the Purpose of Ventilating Passenger-Cars on Railroads; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, like letters referring to like parts.

The nature of my invention consists in the construction of a ventilator by the use of which the foul and impure air may be expelled from the inside of the car, and pure fresh air may by the same ventilator be injected into the car at the will of the passengers, or of those having charge or control of the train, a ventilator so constructed that it might be used for the double purpose of ejecting the foul or injecting pure fresh air into the car, and to be operated in either way without any regard as to which direction the car is moving or which end of the car is foremost, and to be readily and easily applied to the car with little expense.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my ventilator substantially as represented in the perspective view, Figure 1, of galvanized iron.

I, Fig. 1, is the reservoir.

G, Fig. 1, is a cover to an opening of the reservoir.

K, Figs. 1, 2, and 3, is a reversible funnel-shaped air injector or ejector.

H, Figs. 1, 2, and 3, is a tube through which the air passes as it is injected or ejected from the reservoir.

L, Figs. 1 and 2, is a tube through which the air passes as it escapes from the reservoir to the car, or from the car to the outside into the open air.

S, Figs. 1 and 2, is a faucet, which is used to draw the water, as represented at N N, Figs. 1 and 2, from the reservoir.

a a, Fig. 1, represents a shoulder formed on tube H. This tube passes through the cover or top of the reservoir and down into the perforated plate J, Fig. 4, through holes b b b b, as represented at J, Fig. 2. The perforated plate

J is secured to the inside of the reservoir in the position as represented in Figs. 2 and 3 by being soldered. Tube H is secured to the reservoir by means of a small washer that is secured to the tube H at Y Y, Figs. 2 and 3.

On the inside of the reservoir a tube P, Figs. 2, 3, and 4, is secured, and into tube P rod O is inserted. This rod is secured to tube H, as represented at R R, Figs. 2 and 3, by a bolt and screws c c, Fig. 3. On the lower end of rod O a loop Q is formed and is used as a handle by which the rod is worked. T represents the top of the car, as shown in the different views at Figs. 1, 2, and 3.

The ventilator is secured to the top of the car by means of metal straps, made of iron, brass, tin, or galvanized iron, as fancy may dictate, and by being riveted to the reservoir and screwed to the top of the car, as represented at W W, Fig. 1.

I intend to place four of these ventilators on the top of each car, with the tubes H and L made about eight inches in diameter and placed an equal distance apart. In order to enable the reservoir to be thoroughly cleaned, an opening may be made in the perforated plate and secured with a cover, as represented in Figs. 2 and 4 at M.

When this ventilator is applied to use, water is applied to it, and the ventilator is filled with water to correspond about with that shown and represented at N N, Figs. 2 and 3, and when fresh air is to be admitted into the car the funnel will stand in the position as represented in Fig. 1. The air as it passes down into the reservoir will be freed from any and all particles of dust by its coming in contact with the water contained in the reservoir, and the natural jarring motion of the cars keeps the water in a continual state of agitation, which prevents any dust from passing through the ventilator into the cars. The current of air when passing into the cars is shown by the position of the darts in Figs. 1 and 2, and when it is desirable to eject foul air from the car the funnel is reversed by taking hold of the loop Q of rod O and turning it into the position as represented by dotted lines in Fig. 2, when the air will pass from the car, as indicated by the darts also in Fig. 2; and the air in passing to or from the car must pass through the holes b b b b in the

perforated plate, Figs. 2 and 4, as the tube L only passes through the reservoir, while tube H passes below the perforated plate, as represented in Fig. 2. Funnel K should be turned to correspond with the way the cars are going.

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

The reservoir I, perforated plate J, tubes

L and H, and reversible funnel K, when combined, constructed, and operating substantially as described.

LESTER C. BEARDSLEY.

Witnesses:

JOSEPH W. BRIGGS,

JAMES H. SMITH.