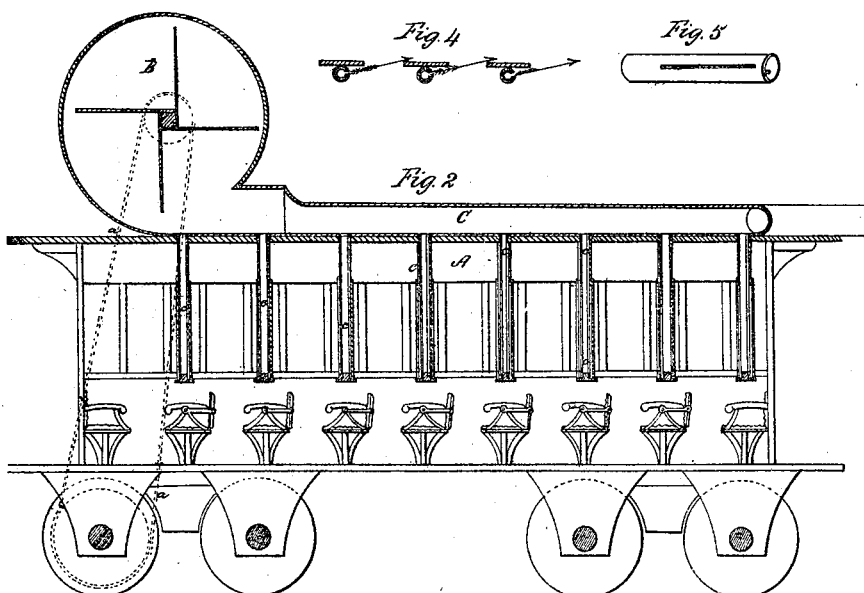
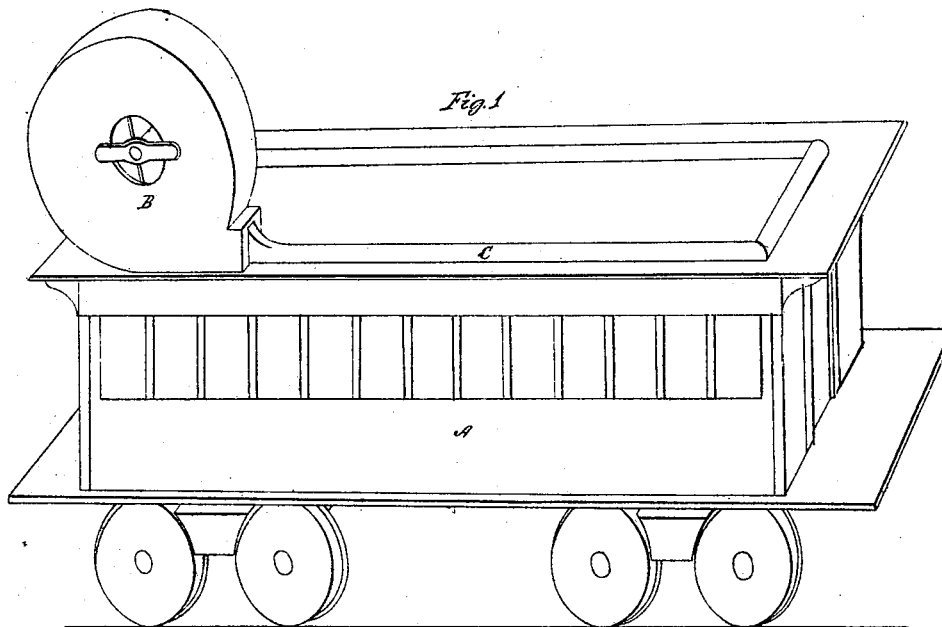


J. Cunningham,

Car Ventilator,

N^o 7,158.

Patented Mar. 12, 1850.



UNITED STATES PATENT OFFICE.

JAMES CUNNINGHAM, OF READING, PENNSYLVANIA.

VENTILATING RAILROAD-CARS.

Specification of Letters Patent No. 7,158, dated March 12, 1850.

To all whom it may concern:

Be it known that I, JAMES CUNNINGHAM, of Reading, in the county of Berks and State of Pennsylvania, have invented a new and useful Device for Preventing the Dust Arising on Railroad-Tracks from Inconveniencing the Passengers in the Cars; and I do hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawing, which forms part of this specification and in which—

Figure 1 represents a perspective view of a car with my improvements attached thereto; Fig. 2 is a vertical longitudinal section of the same; Fig. 3 is a perspective view of one of the ajutages; and Fig. 4 is a horizontal section through a portion of the car, showing the arrangement of the ajutages and the direction of the blast.

My invention consists in attaching to one of the cars of a train a centrifugal fan, which is driven from one of the axletrees of the car, the blast thus generated being conveyed through the car by pipes, whence it is discharged by adjustable ajutages of peculiar form in the direction required to prevent the dust from entering the car.

In the drawing A is the body of a passenger car to the top of which in this instance the fan B is attached the latter is driven by a belt *a* from a pulley on one of the axletrees of the car. The blast generated is carried along the top of the car through a trunk C and thence downward through the ajutages *c* whence it is discharged. These ajutages are of peculiar construction and consist of two pipes (see Fig. 4) concentric with each other, the inner being stationary and the outer movable

upon it. The side of the inner cylinder nearer the windows of the car is pierced with two vertical slots, which occupy such positions with respect to the windows of the car that the blast issuing from them will drive the dust rising from the track away from the windows, either in that direction in which the cars are moving or in the opposite direction.

The outer pipe is pierced with a single vertical slot which, by turning this pipe, may be made to correspond with either one of the slots in the inner pipe, while the other is closed by the solid part of the outer pipe; or this pipe may be so turned that both the slots may be closed to stop the discharge of air.

In ordinary cases one fan will be sufficient for several cars, the blast being conveyed from the air trunks on the top of one to those of the adjoining one by flexible pipes, and the fan may be attached either to the locomotive tender or to any one of the cars.

The utility of my invention is not limited to railroad cars, but it may be applied to pleasure carriages or vehicles of any description; and the blast may be produced by any form and arrangement of blowing apparatus driven by the running gear of the vehicle.

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

The employment of jets of air produced substantially in the manner herein set forth for preventing the entrance of dust into railroad cars or carriages of any description.

JAMES CUNNINGHAM,

Witnesses:

A. C. HOFF,
DAVID MEDARY,