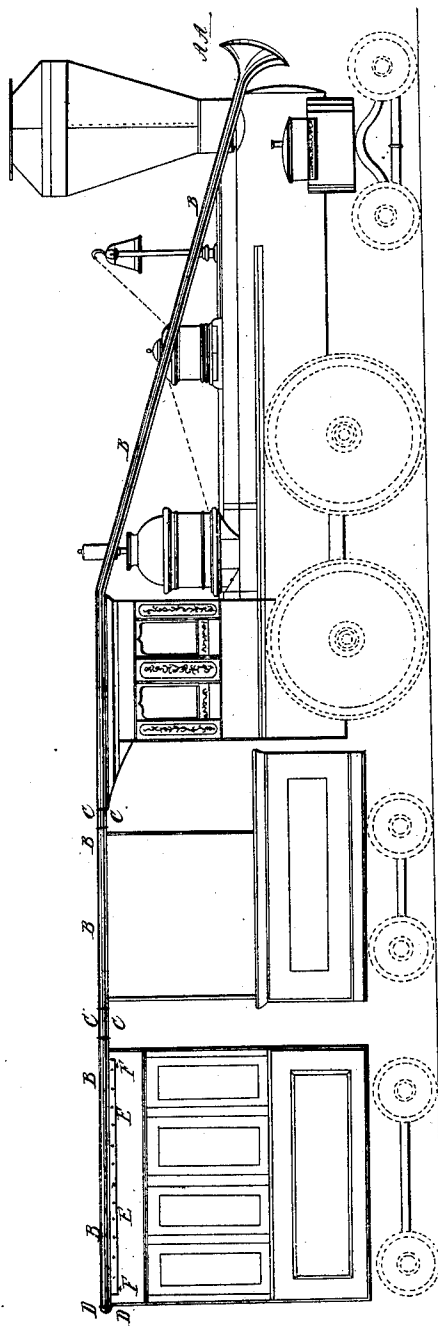


C. NEWCOMB.
LOCOMOTIVE RAILWAY CAR VENTILATOR.

No. 30,340.

Patented Oct. 9, 1860.



Witnesses,
W. L. Fairbank
James B. Hicks.

Inventor,
Chas. Newcomb by
A. B. Black & Co.

UNITED STATES PATENT OFFICE.

CHARLES NEWCOMB, OF NEW YORK, N. Y.

APPARATUS FOR THE VENTILATION OF RAILROAD-CARS.

Specification of Letters Patent No. 30,340, dated October 9, 1860.

To all whom it may concern:

Be it known that I, CHARLES NEWCOMB, of the city of New York, county and State of New York, have invented a new and improved method of ventilating railway-cars in trains of any number, and that each car will be separately ventilated with pure air, free from the dust of the road, and the cinders from the smoke-stack, as well as the sparks and smoke from the funnel; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon.

The nature of my invention, consists of two or more rose formed air vents, in front of the smoke stack, one on each side, marked A, A. Sufficiently low down as not to obstruct the view of the engineer along the track of the rail road, to those are attached the main sheet iron or other suitable pipes of sufficient diameter for admission of the air, marked B, B. These pipes are carried from the smoke stack, over the roof of the engineer's house, where it is attached to similar pipes that are permanently fixed to the tender, by india rubber or other kind of hose; one end being screwed on, while the other end is permitted to slip into the corresponding main connection air pipe, resting on the roof of each car. Similar arrangements are adopted with each successive car for the whole length of the train. The connection hose are marked C, C, in the drawing.

At the end of the line of cars which constitutes the train there is screwed on the end of the main pipes two stops formed of india rubber or other substance marked D D which prevents the passage of the air at the extreme end for the main supply pipe, and causes the inflation of the pipe from end to end, with the pressure of the air passed through the rose formed air vents in pro-

portion to the speed at which the engines run. This great pressure forces the pure air down through openings permitted through the roof of the car into the ventilating pipes which run along the ceiling on the opposite side of the ceiling marked E E in the drawing with openings along their sides to permit the air on either side to meet in the center, and flow equally over the entire space of the inside of the car.

At the connection of the main pipe and the ventilating marked "E E," and which passes through the roof, a damper is adjusted for shutting out too great a current of air, marked "F F," in the drawing; each car has a separate pair of dampers for this purpose, that all cars may arrange the ventilation at pleasure and independent of each. The escape of the impure air passes off at the ornamental panels with open work attached to each door, so that the air being pressed down from the ventilating pipes marked "E E" is forced through the rear door panel as the car may be, as both doors are provided the same with ornamental panels and shutters to close front door when the cars are running on the road.

I claim—

The combination with the main pipes running along the train of cars as described, of perforated pipes within the body of the cars and below the ceiling, together with their dampers,—the whole being arranged to be operated as described so that each car may be supplied with the requisite quantity of fresh air, free from dust, smoke or cinders and without such ventilation of one car interfering with that of the others.

CHAS. NEWCOMB.

In presence of—

THOS. S. REVETT,
SAMUEL NOWLAM.