

(No Model.)

G. T. ROGERS.
VENTILATOR FOR RAILWAY CARS.

No. 544,904.

Patented Aug. 20, 1895.

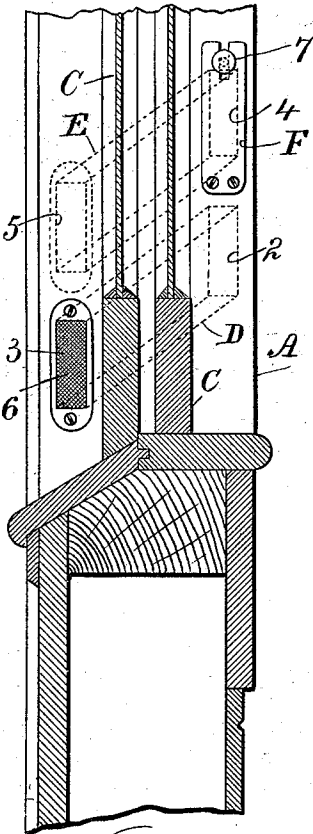


Fig. 3

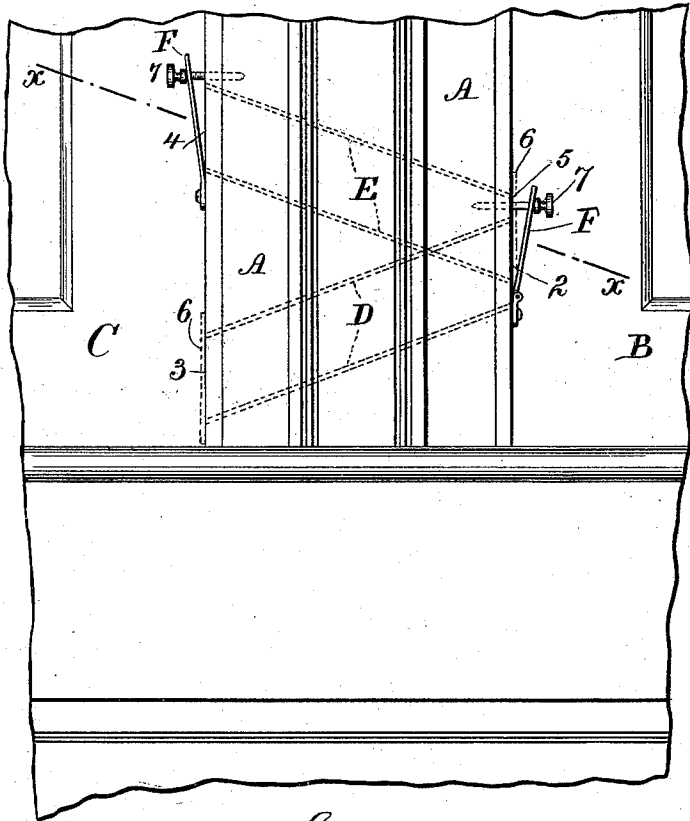


Fig. 2

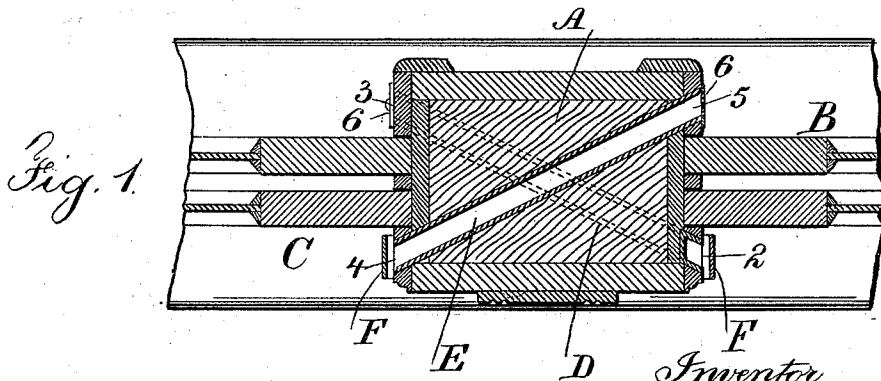


Fig. 1

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE T. ROGERS, OF NORTH PLAINFIELD, NEW JERSEY.

VENTILATOR FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 544,904, dated August 20, 1895.

Application filed June 17, 1895, Serial No. 553,003. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. ROGERS, a citizen of the United States, residing at North Plainfield, in the county of Somerset and State of New Jersey, have invented an Improvement in Ventilators for Railway-Cars, of which the following is a specification.

The present improvement is especially available for ventilating the berths in sleeping-cars. The speed with which a train usually travels is sufficient to insure ventilation in the compartment of a sleeping-car or to the individuals in an ordinary car, provided the ventilating openings are sufficiently numerous, and they may be of comparatively small size.

In carrying out the present invention I provide tubular openings through the side of the car between one window and the next, such tubular openings inclining upwardly and inwardly from the outer surfaces of the window-frames, and the inner ends of these ventilating-tubes open into the car in opposite directions and at each side of the frame between the windows, so that when the car is traveling in one direction the air passes into the outer end of one of the tubes and travels upwardly and inwardly, so as to supply fresh air into the car, and the ventilating-tube which opens to the rear becomes an exhaust or suction tube to draw out from the car the deteriorated atmosphere, thus producing a circulation into and out of the car between the adjoining windows, and I provide a movable cover adapted to regulating the quantity of inflowing air or the quantity of air that is drawn out. This ventilating device is preferably located about half-way up the sash.

In the drawings, Figure 1 is a sectional plan view, at the line *xx* of Fig. 2, of a portion of the side of the car between two of the windows. Fig. 2 is an elevation of the same parts from within the car; and Fig. 3 is a section through the window-sash, showing one end of each of the ventilating-tubes, such tubes being indicated by dotted lines.

The portion A of the car between the two windows B and C is to be of any desired character, and in some cars there are two sashes and in others there are single sashes and sliding blinds.

The ventilating-tube D is formed by an

opening, preferably rectangular and comparatively narrow, such opening passing through the window-frame at 2 at one side of the portion A of the car and extending downwardly and outwardly and terminating at 3 on the outside of the next window, and the ventilating-pipe E is inclined in the opposite direction from the inner opening at 4 that is inside the window C and passes downwardly and outwardly to the opening at 5 outside the window B; and it is to be understood that these two ventilating-openings D and E are to be one higher than the other, so as not to intersect each other where they cross within the portion A of the car; and it is advantageous to apply at the lower and outer end of each ventilating-opening a piece of wire-gauze at 6 to exclude dust, and usually the ventilating-openings will be lined with closely-fitting tubes of metal or other similar material; and it will be observed that the ventilating-openings, as they pass upwardly and inwardly from the outer side of the car, will not allow moisture to run or be driven by the wind into the car.

The wire-gauze or perforated metal at 6 may be fastened in any desired manner. I have represented the same as secured in place by a frame of metal surrounding the lower end of the tube and screwed upon the car.

At the inner end of each ventilating-tube it is advantageous to provide an adjustable stopper, so as to exclude the entrance of air whenever desired. This stopper may be of any desired character, but I have represented a plate of spring or sheet metal F as hinged or fastened permanently at its lower end to the window-frame inside the car, and having its upper end inclined away from the window-frame, and the screw 7 may be employed to press this stopper-plate F toward the end of the ventilating-tube or to allow such stopper-plate to spring back and open the inner end of the ventilating-tube.

By constructing the ventilating device in the aforesaid manner the ventilating operation is similar when the car is going in either direction—that is to say, the fresh air is supplied from the outside into the advancing end of one of the tubes and air is drawn away at the outer and lower end of the other tube, as the same opens toward the rear, and when

the direction of movement of the car is reversed the previous inlet-tube becomes the discharge-tube. In all instances the occupant of the berth or the party in the car can use the full capacity of the ventilator or shut the same off more or less by moving the stopper without inconvenience to those in other parts of the car.

I claim as my invention—

1. The combination in a car ventilator, of two ventilating tubes passing through the side of the car between two of the windows, such tubes leading from the outside upwardly and inwardly in opposite directions and opening through the respective window frames inside and outside the car, substantially as set forth.

2. The combination in a car ventilator, of two ventilating tubes passing through the side of the car between two of the windows, such tubes leading from the outside upwardly and inwardly in opposite directions and opening through the respective window frames in-

side and outside the car, and movable stoppers applied to the ventilating device for regulating the volume of air passing through the same, substantially as set forth.

3. The combination in a car ventilator, of two ventilating tubes passing through the side of the car between two of the windows, such tubes leading from the outside upwardly and inwardly in opposite directions and opening through the respective window frames inside and outside the car, and stoppers formed of spring or sheet metal plates each connected at one end to the window frame the other end movable away from such window frame and a screw for adjusting the proximity of the moving end to the window frame, substantially as set forth.

Signed by me this 14th day of June, 1895.

GEORGE T. ROGERS.

Witnesses:

GEO. T. PINCKNEY,
S. T. HAVILAND.