(No Model.)

J. KREHBIEL.

VENTILATOR FOR RAILWAY PASSENGER CARS.

No. 523,167. Patented July 17, 1894.

Fig. 1.

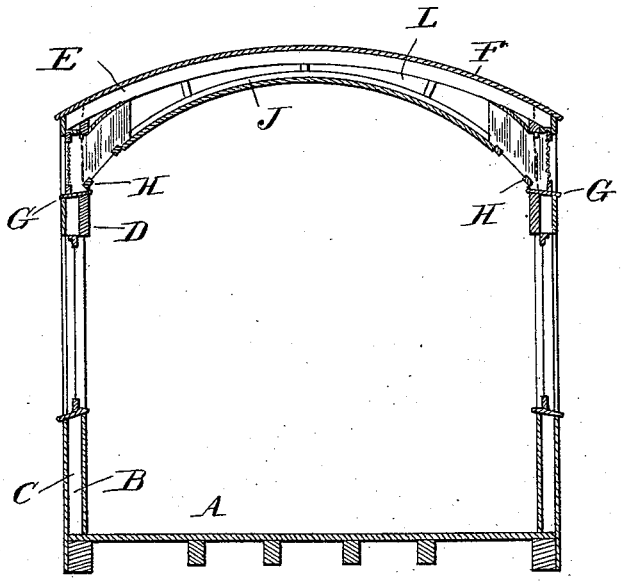
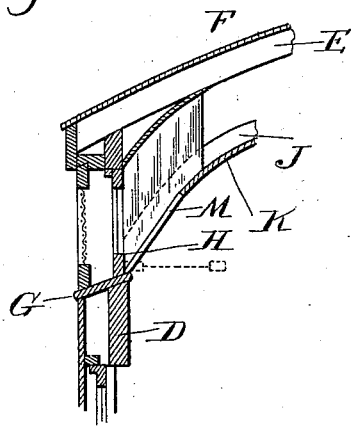


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN KREHBIEL, OF CLEVELAND, OHIO.

VENTILATOR FOR RAILWAY PASSENGER-CARS.

SPECIFICATION forming part of Letters Patent No. 523,167, dated July 17, 1894.

Application filed January 12, 1893. Renewed June 2, 1894. Serial No. 513,319. (No model.)

To all whom it may concern:

Be it known that I, JOHN KREHBIEL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Ventilators for Railway Passenger-Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the peculiar construction of the roof, the same comprising the carlings, with a suitable roof sheathing extending from the plate on one side to the plate on the other, with false carlings arranged a short distance below the carlings ceiled to form a ventilating chamber across the entire roof, with ventilators at the side adapted to be opened to communicate only with this ventilating chamber, or to open directly into the car, all as more fully hereinafter described.

In the drawings, Figure 1 is a vertical cross section through a railway car embodying my invention. Fig. 2 is a similar section of one side of the car, enlarged to illustrate the details of construction.

A is the car floor, B the posts, C the siding, D the plates at the top of the posts, E the carlings curved and extending from one post to the other, omitting the ordinary clear story or upper deck. The carlings are preferably covered with a suitable roof sheathing F and finished in any desired manner.

The posts B at suitable intervals are connected near the top by a suitable sill G, leaving a space between that sill and the roof, which is closed by the ventilating window H hinged at the lower edge and adapted to open inwardly.

Within the car and beneath the roof, preferably having a curve corresponding to the curve of the carlings E is a series of false carlings J, secured at their ends, preferably to the post B, and covered with suitable ceiling or furring K. The result of this structure is to leave a clear passage way or chamber L across the car from one side to the other beneath the roof. The ceiling is cut away opposite the ventilating windows H, so that those windows may be either turned, as shown in Fig. 2, to communicate directly with the chamber L, or be turned to a horizontal position, whereby they open directly into the body of the car, as shown in dotted lines in Fig. 2. In this way, supposing one or more of the ventilating windows at the forward end of the car are opened into the chamber L, and the remaining ventilating windows are closed, the motion of the train will force the air into the chamber J and longitudinally through that chamber, distributing it into the car through the apertures M in the furring, as plainly shown in Fig. 1, or where desired all the windows may be opened directly into the car.

If all the ventilators are opened to their first position it is evident that a circulation would be maintained through the roof, and in hot weather the intense heat of the sun would not penetrate to the car as is now the case.

What I claim as my invention is—

1. In a railway car, the combination with the roof extending unbroken entirely across the car of a furring below and extending across the roof parallel therewith or substantially so and forming a chamber between, and a ventilator at the sides adapted to communicate with said chamber, substantially as described.

2. In a railway car, the combination with the continuous roof extending from side to side of the car, of a furring extending beneath the roof a short distance from and parallel therewith to form a chamber across the top of the car beneath the roof, ventilating windows in the side of the car, adapted to be turned to communicate with this ventilating chamber, or with the body of the car, substantially as described.

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

JOHN KREHBIEL.

Witnesses:
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N. L. LINDOP.