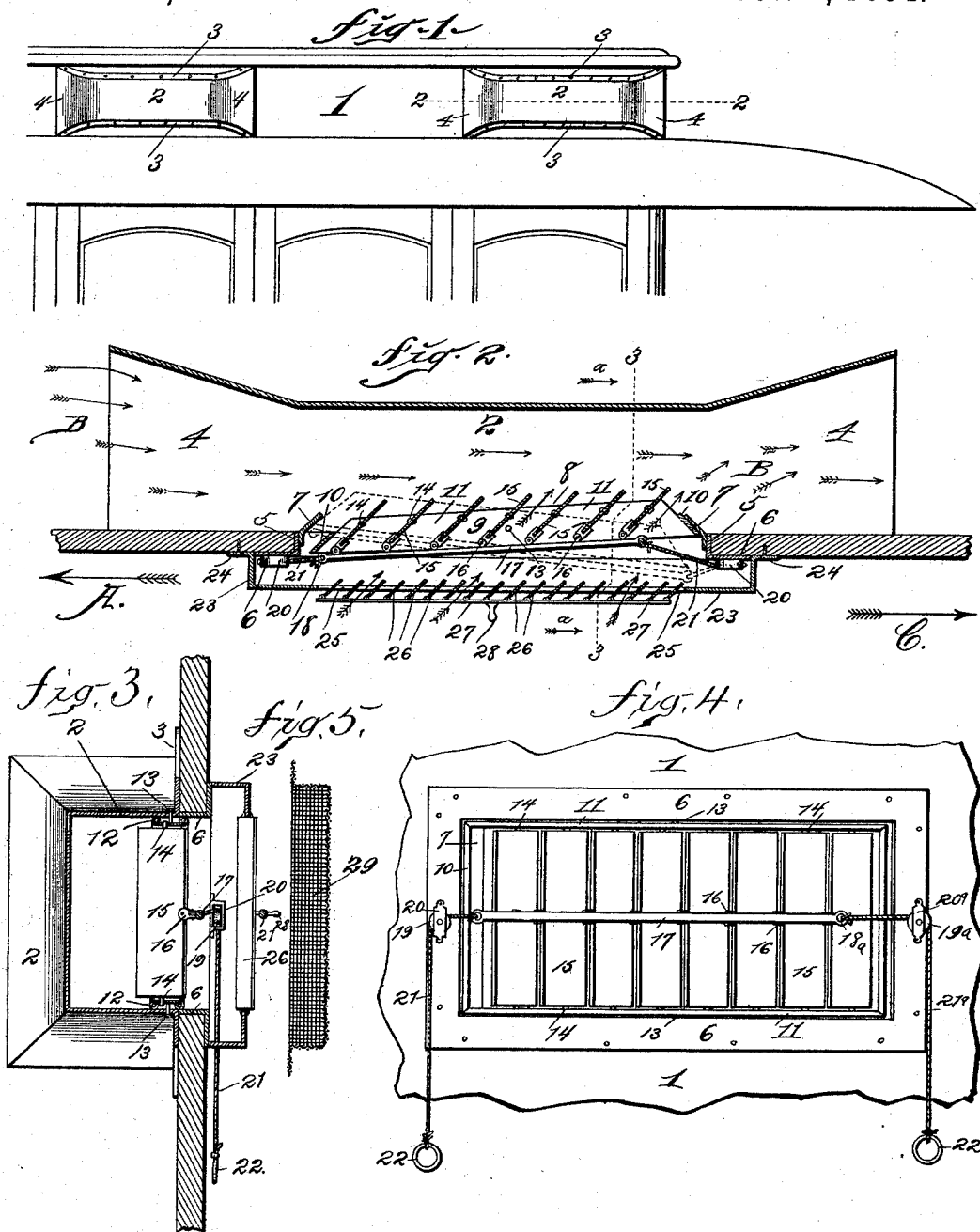


(No Model.)

O. H. GOLDBERG.  
CAR VENTILATOR.

No. 527,241.

Patented Oct. 9, 1894.



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# UNITED STATES PATENT OFFICE.

OTTILIE H. GOLDBERG, OF ST. LOUIS, MISSOURI.

## CAR-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 527,241, dated October 9, 1894.

Application filed March 12, 1894. Serial No. 503,265. (No model.)

*To all whom it may concern:*

Be it known that I, OTTILIE H. GOLDBERG, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Car-Ventilators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

The object of my invention is to produce a simple, compact, and efficient car ventilator, one that is inexpensive in construction and practically automatic in its workings.

To the above purposes my invention consists in certain new and novel features of construction that will be hereinafter described and claimed.

In order that my invention may be more fully understood, I will now proceed to describe it, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the top portion of a car, and showing the location of my ventilator as required for practical use. Fig. 2 is a longitudinal central sectional view taken on the line 2—2 of Fig. 1. Fig. 3 is a vertical cross-sectional view taken on the line 3—3 of Fig. 2, and looking in the direction of the arrows "A." Fig. 4 is a modified form of the interiorly located casing, of which I make use in carrying out my invention and Fig. 5 is an elevation of my ventilator, a portion of said ventilator being removed to more clearly illustrate the device.

Similar numerals refer to similar parts throughout the several views.

The numeral 1 designates the frame work of the upper portion of a car, and in which my ventilator is located.

2 designates a rectangular open ended casing, preferably formed of sheet metal, being provided on its inner edges with the flanges 3, by means of which it is attached to the car frame work 1. The ends of this casing 2 are flared outwardly and upwardly, said flared portion being designated by the numeral 4. Adjacent this casing 2, and in the frame work 1 of the car, is formed a rectangular opening 5, the inner edges of this opening 5 being cased with the rectangular sheet metal strip 6. Rigidly secured to the inner ends of this sheet metal strip 6 are the inwardly ex-

tending retaining plates 7. Within this rectangular sheet metal cased opening 5 is located the movable ventilator 8, now to be described. This ventilator 8 is composed of a rectangular frame work 9, which is in turn composed of the end-plates 10 and side-plates 11, said end-plates 10 being rigidly secured to the side-plates 11, and at the same angle as are the plates 7 previously mentioned. The side-plates 11 of the rectangular frame 9 are somewhat wider than the end-plates 10, and have their edges wired to form the beads 12 which lie immediately against the casing 6, and the top and bottom walls of the rectangular casing 2. This rectangular frame 9 is pivoted to the top and bottom walls of the casing 2 by means of pins 13 passing through said top and bottom walls. By this means of pivoting, said frame 9 is capable of a slight longitudinal oscillating movement, said movement being retarded by the contact of the end-plates 10 against the plates 7.

Pivoted within the longitudinally extending side-plates 11, by means of the pins 14, is a series of ordinary ventilator slats 15. Extending along the forward portions of these slats 15, and pivoted to their forward edges, by means of the clips 16, is a rod 17 provided on both ends with the eyes 18.

On the interior of the rectangular casing 6, and adjacent the ends of the opening 5, are grooved wheels 19 held in position by the retaining plates 20. Over these grooved wheels 19 and attached to the eyes 18 on the ends of the rod 17, are cords or chains 21 which depend from the grooved-wheels 19, and have their lower ends provided with rings 22.

Located immediately in front of the rectangular opening 5 is the rectangular casing 23, which is provided with the outwardly extending flange 24, by means of which said casing 23 is secured to the interior of the frame work 1 of the car. This rectangular casing 23 is provided with a rectangular opening 25 immediately in front of the oscillating ventilator 8. Within this rectangular opening 25 is located a series of vertical ventilator slats 26, to the inner edges of which is pivoted the longitudinally extending rod 27, provided with the centrally located head 28. Thus it will be seen said ventilator slats 26 are held

together and made to move in unison by said rod 27. In some instances this rectangular casing 23 is dispensed with, and the reticulated casing 29, which is preferably formed of wire netting and without the rectangular opening 25, is placed immediately over the rectangular opening 5.

The operation of my improved ventilator is as follows: Presuming that the car is moving in the direction indicated by the arrow "A," the ventilator 8 must necessarily be in the position as shown in Fig. 2. As the car moves forward air will enter the casing 2, as indicated by the arrows "B," and passing onward through said casing causes a draft of air through the ventilators and from the interior of the car, thus drawing the foul air from the interior of the car and discharging same through the rear of the casing 4. Such discharge of air or draft from the interior of the car can be easily regulated by manipulating the double series of ventilator slats, or if desired such draft can be entirely cut off. Should the car be moving in the direction indicated by the arrow "C," the conductor, or person in charge of the car, pulls downwardly upon the string 21<sup>a</sup>, which, passing over the grooved wheel 19<sup>a</sup> and secured to the eye 18<sup>a</sup> of the rod 17, oscillates the ventilator 8 and causes the same to assume the position as indicated by dotted lines in Fig. 2. It will also be seen that the position of the ventilator slats 15 will be reversed.

Thus it will be seen that the ventilator is operative should the car be moving in either direction.

In the use of the rectangular reticulated casing 29, the passage of air or draft from the interior of the car cannot be entirely cut off.

By having the two ventilators and ventilator slats, rain, snow, dust, &c., are entirely precluded.

Thus it will be seen how I have provided a simple, durable, inexpensive and efficient car ventilator.

What I claim is—

1. In a car ventilator, a rectangular casing having flaring open ends located adjacent an opening in the upper portion of a car, an oscillating rectangular ventilator located within said opening, and a ventilator located within a rectangular casing upon the inte-

rior of a car, substantially as shown and described.

2. A car ventilator, comprising a rectangular sheet metal casing located upon the outside of the car and provided with flaring open ends, an oscillating ventilator located within said rectangular casing and within the wall of the car, a rectangular casing located upon the interior of the car and having a ventilator located therein and immediately in front of the oscillating ventilator, and means for operating said oscillating ventilator, substantially as specified.

3. In a car ventilator, an oscillating ventilator comprising a rectangular frame, a series of ventilator slats partially rotating within said rectangular frame, a longitudinally extending rod secured to the edges of said ventilator slats, a rectangular casing located within an opening in the side wall of the car, and to which is centrally pivoted the before mentioned oscillating ventilator, and means for operating said oscillating ventilator, substantially as specified.

4. In a car ventilator, a rectangular casing having flaring and open ends located adjacent an opening in the side wall of a car, an oscillating ventilator centrally pivoted to the frame work within said opening, and a reticulated casing located upon the interior of the car and over said oscillating ventilator, substantially as specified.

5. In a car ventilator, the combination of the following elements, to-wit: a rectangular casing 2 having the flaring open ends 4, an oscillating ventilator 8 comprising the rectangular frame work 9, partially rotatable slats 15, a longitudinally extending rod 17 connecting said ventilator slats 15, a cord or chain 21 passing over a grooved wheel 19, and a rectangular frame work 23 provided with the ventilator slats 25 held together by the longitudinally extending rod 27 provided with the head 28, all to operate in the manner set forth and for the purposes specified.

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

OTILIE H. GOLDBERG.

Witnesses:

M. G. IRION,

JNO. C. HIGDON.