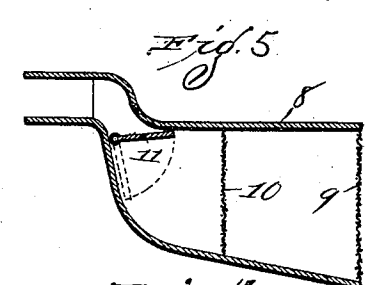
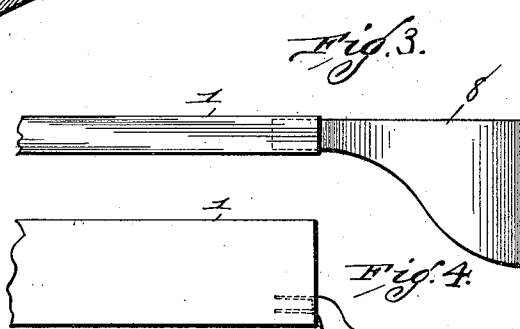
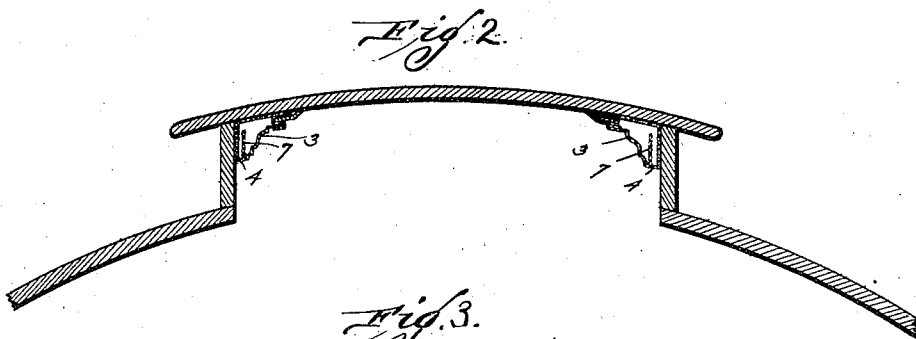
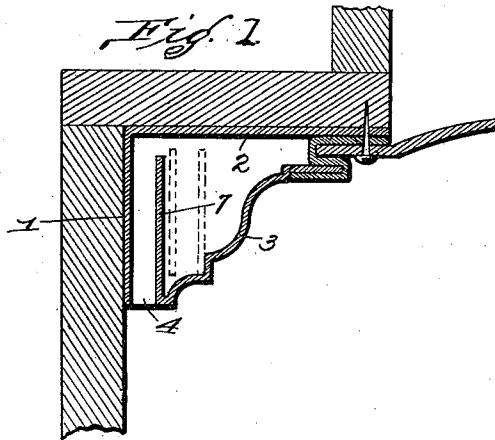


(No Model.)

D. J. LANE & J. P. HAHN.
VENTILATOR.

No. 577,367.

Patented Feb. 16, 1897.



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UNITED STATES PATENT OFFICE.

DAVID J. LANE AND JOHN P. HAHN, OF ST. LOUIS, MISSOURI, ASSIGNORS
OF ONE-THIRD TO JOHN J. O'BRIEN, OF SAME PLACE.

VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 577,367, dated February 16, 1897.

Application filed June 1, 1896. Serial No. 593,809. (No model.)

To all whom it may concern:

Be it known that we, DAVID J. LANE and JOHN P. HAHN, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Ventilators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to a ventilator; and it consists in the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a vertical sectional view showing the application of our improved ventilator to a car. Fig. 2 is a vertical sectional view showing the application of our ventilator to a car-roof different in form from the car-roof shown in Fig. 1. Fig. 3 is a side elevation of one of the ends of the ventilator. Fig. 4 is a top plan view of the part shown in Fig. 3, and Fig. 5 is a horizontal sectional view of the part shown in Figs. 3 and 4.

Our improved ventilator is preferably made of sheet metal, and may be made ornamental as well as useful.

In the construction of a ventilator in accordance with the principles of our invention the walls 1 and 2 are joined together at right angles, and they are designed to fit in a corner formed by the junction of the wall and the ceiling or roof of the car. The wall 3 may be beaded in imitation of molding, or any suitable design may be employed, and the upper outer edge of said wall 3 may be joined to the outer edge of the wall 2 in any suitable way. The lower edge of the wall 3 is bent upwardly, forming the wall 7 in parallel position with the wall 1. Bridges may be inserted between the lower edge of the wall 1 and the lower edge of the wall 7.

At each end of the ventilator and at the forward and rear end of the car and outside of the roof a rectangular funnel 8 (shown in Figs. 3, 4, and 5 and in dotted lines in Fig. 1) is positioned in such a way that it communicates with the space within the walls 2, 3, and 7.

In the practical operation of this form of ventilator the motion of the car will cause a current of air to pass in at one funnel and through the space within the walls 2, 3, and

7 and out at the other funnel, and this passage of air will cause a suction which will draw in the heated and foul air of the car from the inside of the car through the openings 4, between the lower edge of the walls 1 and 7, up through the space between said walls, and over the upper edge of the wall 7 into the space within the walls 2, 3, and 7, and thence outwardly with said current.

By extending the ventilator all the way around the inside of the room or car the foul air will be drawn from all parts of the car or room at the same time.

The wall 7 is intended to prevent the cinders and dust which may be drawn into the funnel from entering or being deposited in the car.

A screen 9 is placed over the mouth of the funnel 8 and a second screen 10 is placed transversely of the funnel behind the screen 9, and a damper 11 is placed in the neck of the funnel, as shown in Fig. 5. The screens are to prevent the entrance of cinders and dirt and the damper is to regulate the ventilation. It is obvious that the form of funnel used may be varied to suit the circumstances without departing from the spirit of our invention, and that the form of pipe or air-passage may also be varied. It is only essential that an air-passage be provided through the upper part of the car or room and that there be openings through the wall containing said passage and outlets from said passage to the open air.

A ventilator of our improved construction is cheap, ornamental, and very efficient and possesses many advantages over anything of the kind heretofore in use.

We claim—

1. In a ventilator for a car, the combination with a wall extending longitudinally through the car, of a wall joined to one edge thereof and extending at an angle thereto, a wall joined to the free edge of one of these walls and extending toward, but not entirely to, the free edge of the other wall, a wall joined to the free edge of the third-mentioned wall positioned parallel to the first-mentioned wall and extending toward but not entirely to the second-mentioned wall, thereby providing a passage between the space inclosed

by the second, third, and fourth mentioned walls and the space inclosed by the first, second and fourth mentioned walls, and openings in each end of the car to admit air to the space inclosed by the second, third and fourth mentioned walls.

2. In a ventilator for a car, the combination with a wall extending longitudinally through the car, of a wall joined to one edge thereof and extending at an angle thereto, a wall joined to the free edge of one of these walls and extending toward, but not entirely to, the free edge of the other wall, a wall joined to the free edge of the third-mentioned wall positioned parallel to the first-mentioned wall and extending toward but not entirely to the second-mentioned wall, thereby providing a passage between the space inclosed by the second, third and fourth mentioned walls and the space inclosed by the first, second and fourth mentioned walls, and funnels mounted upon the outside of the car and communicating with the space inclosed by the second, third and fourth mentioned walls, substantially as specified.

3. In a ventilator for a car, the combination with a wall extending longitudinally

through the car, of a wall joined to one edge thereof and extending at an angle thereto, a wall joined to the free edge of one of these walls and extending toward, but not entirely to, the free edge of the other wall, a wall joined to the free edge of the third-mentioned wall positioned parallel to the first-mentioned wall and extending toward but not entirely to the second-mentioned wall, thereby providing a passage between the space inclosed by the second, third and fourth mentioned walls and the space inclosed by the first, second and fourth mentioned walls, funnels mounted upon the outside of the car and communicating with the space inclosed by the second, third and fourth mentioned walls, screens in the mouths of said funnels, and dampers in the necks of said funnels, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

DAVID J. LANE.
JOHN P. HAHN.

Witnesses:
EDWARD E. LONGAN,
S. G. WELLS.