

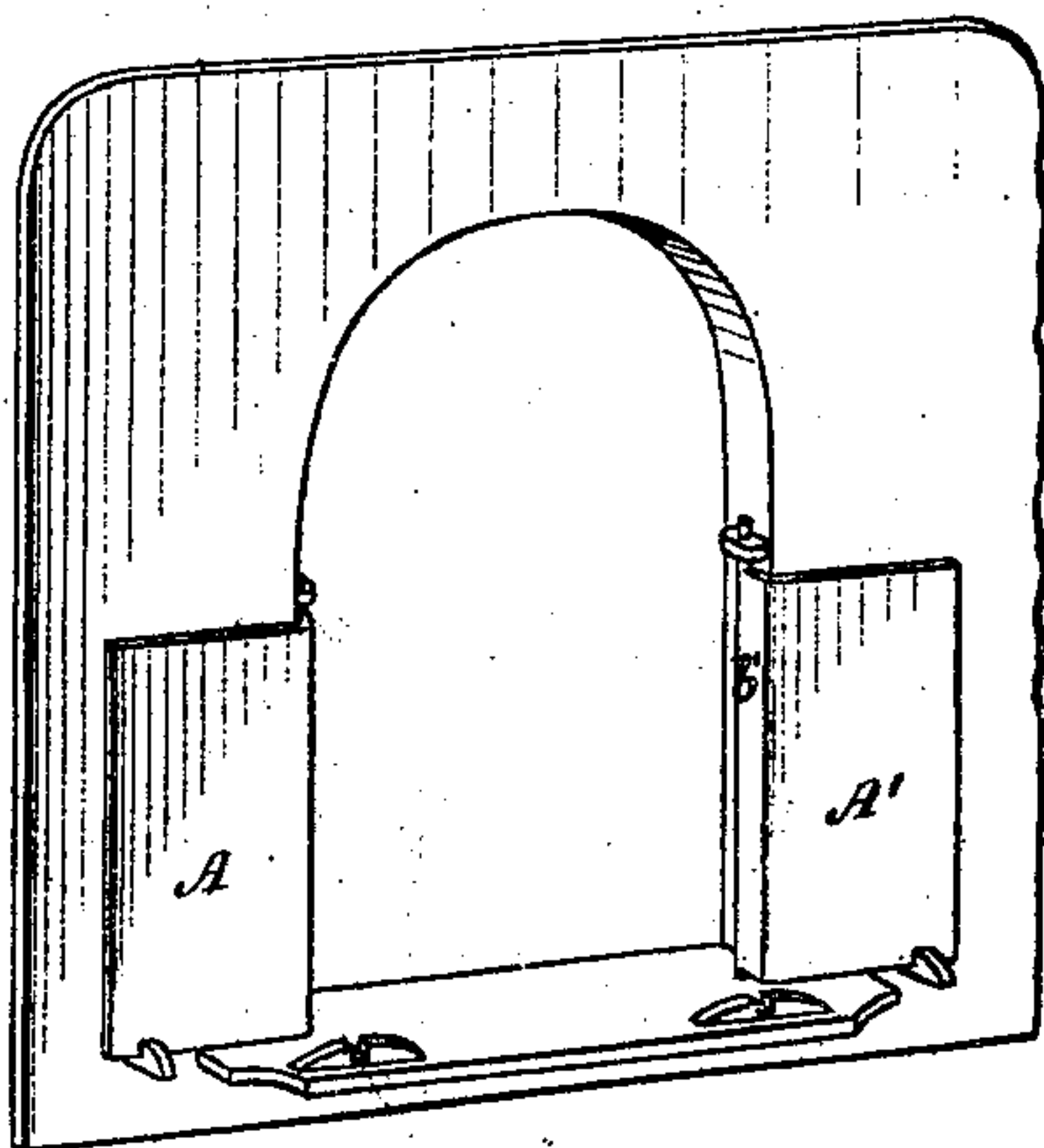
*C. P. Tillinghast,*

*Car Ventilator.*

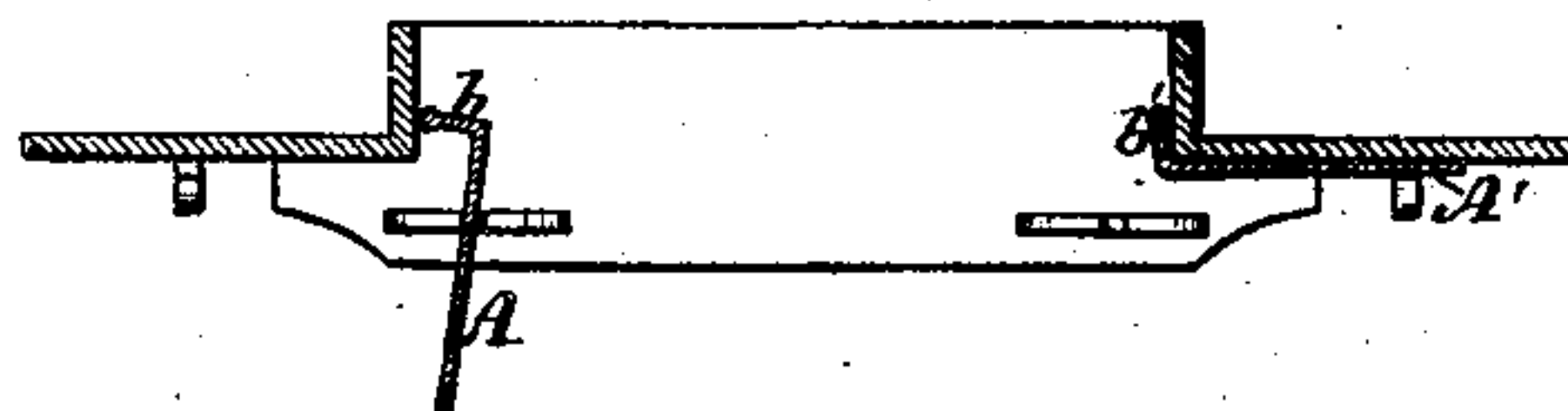
*No. 110,803.*

*Patented Jan. 3. 1871.*

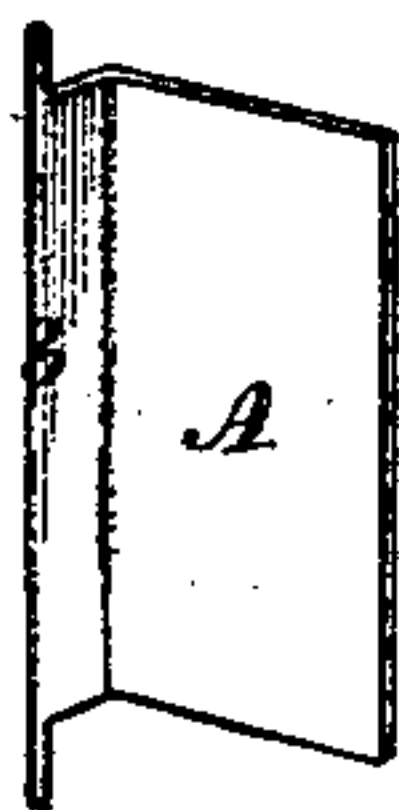
*Fig. 1.*



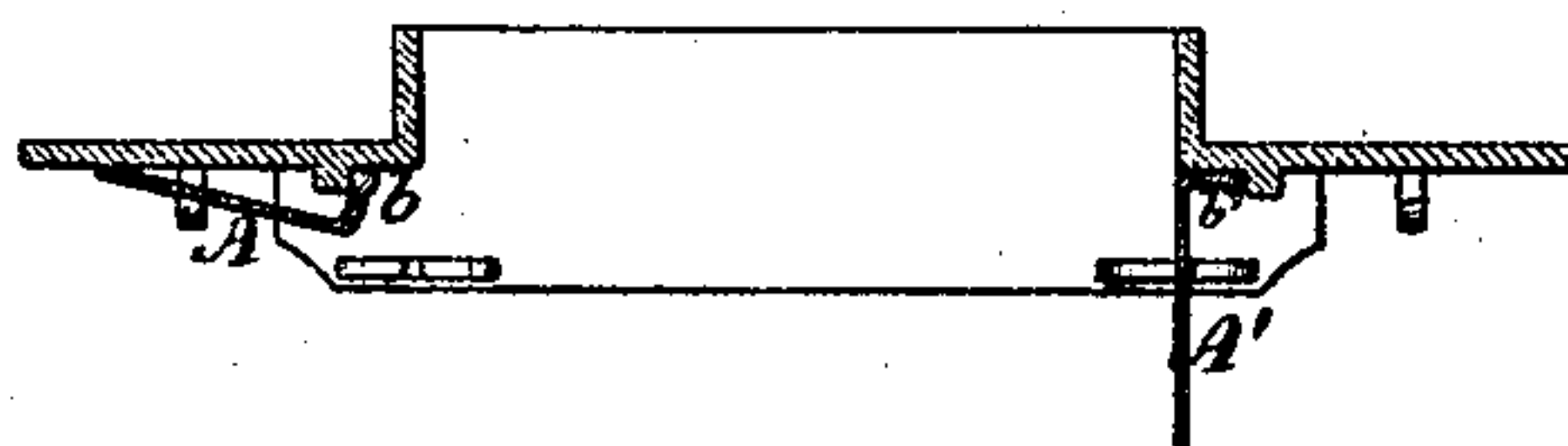
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Witnesses.*

*Phil. A. Larned*  
*Frank A. Jackson*

*Inventor.*

*Clark P. Tillinghast.*  
*By Wm. C. Moor*  
*Attorney.*

# UNITED STATES PATENT OFFICE.

CLARK P. TILLINGHAST, OF PROVIDENCE, RHODE ISLAND.

## IMPROVEMENT IN RAILROAD-CAR VENTILATORS.

Specification forming part of Letters Patent No. **110,803**, dated January 3, 1871.

*To all whom it may concern:*

Be it known that I, CLARK P. TILLINGHAST, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Improvement in Car-Ventilators and Dust-Guards.

My improvement relates to that general class of ventilators which are applied to the car-windows; and consists in providing the deflectors with right-angled edges, to which hinges are applied; and I do hereby declare the following specification, taken in connection with the drawing furnished and forming a part of the same, to be a clear, true, and exact description thereof.

Reference being had to the drawing, Figure 1 represents a car-window with both of the ventilators or dust-guards A and A' flat against the sides of the car. They will be in this position when the car-windows are not open and no such means of ventilation are requisite, and also when there is but little dust on the road. Fig. 2 represents, in top view, the window-sill and ventilator in cross-section. Fig. 3 represents, in perspective, the ventilator detached from the car, and exhibiting its peculiar form. Fig. 4 represents the same as in Fig. 2, with the exception that the leaves are attached to the outside of the car.

It will be observed that the hinged edge *b b'* of each ventilator or dust-guard is turned nearly to a right angle to the face of the guard, and it is in this peculiar form that my invention lies.

It has been proposed for many years to have ventilators consisting of the plain flat leaf hinged to the outside of the car adjacent to the windows. Experiments have been made therewith, but, owing to the difficulty of having a joint which, while it would allow the leaf to come in contact flatwise with the side of the car, would also, when at right angles thereto, present a closed joint, the common and usual method of hinging has been applied.

During the heated portion of the year it is not only desirable to ventilate a car, but to have an open window, and at the same time as little dust as possible. Should there be even the slightest opening between the inner edge of the leaf and the outside of the car, an

inward current of air laden with dust is driven directly into the eyes of the passenger, even though a partial outward current be also effected.

My improved leaf, having its inner or hinged edge bent at nearly right angles to the face, is so set within the joint of the windows that when not in use the leaf will be in close contact with the side of the car. When extended for use the curved edge breaks joints with the edge of the window-frame, and the current of air passes by the joint, and, striking against the leaf, whirls outward from the side of the car, producing the desired effect.

It is evident that a close round hinge attached to the right-angled edges would in a measure serve a similar purpose, and yet be within the scope of my invention, which consists not in the leaf alone, but in providing the same with such a means of close connection with the side of the car as will direct the current of air past the point of junction with the car when the leaf is extended outward and in use.

As represented in Fig. 4, the leaves may be hinged to the outside of the car, adjacent to a vertical strip for "breaking joints." When thus mounted, however, it is not practicable to have them lie against the sides of the car as closely as if mounted in the manner before described.

Any of the ordinary forms of shutter-latches will serve to keep the leaves in either of two desired positions.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The improvement in car-ventilators or dust-guards which consists in providing the leaves A and A' with the right-angled edges *b b'*, hinged to the car, substantially as described, by means of which the current of air is directed past the joint with the window-jamb or side of the car, as and for the purposes specified.

CLARK P. TILLINGHAST.

Witnesses:

HENRY MARTIN,  
JOHN C. PURKIS.