A. B. CHILDS.

CAR-VENTILATOR AND DUST DEFLECTOR.

No. 180,844. Patented Aug. 8, 1876.

Fig. 1.

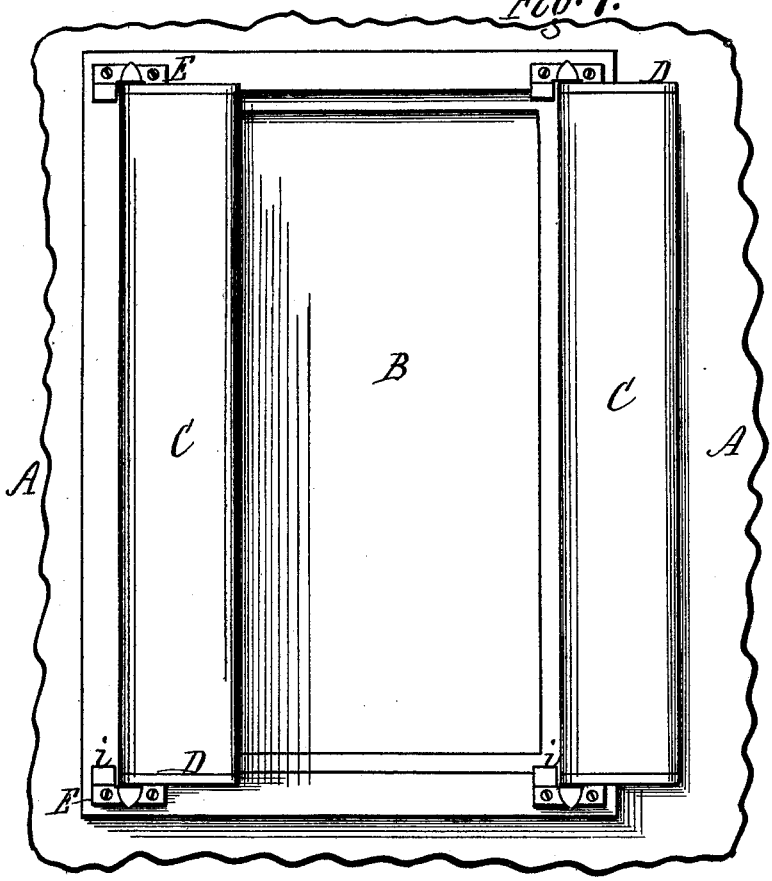


Fig. 2.

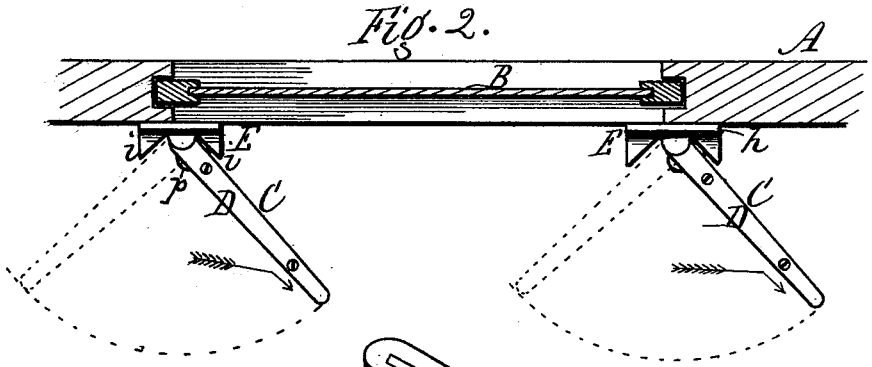
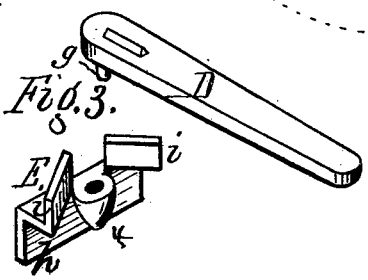


Fig. 3.



Witnesses.
E. B. Scott.
Jacob Spahr

Inventor.
Augustus B. Childs.
per R. F. Osgood,
Atty.

UNITED STATES PATENT OFFICE.

AUGUSTUS B. CHILDS, OF LONDON, ENGLAND, ASSIGNOR TO EDUARDO E. BLYTH, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN CAR-VENTILATORS AND DUST-DEFLECTORS.

Specification forming part of Letters Patent No. **180,844**, dated August 8, 1876; application filed May 16, 1876.

To all whom it may concern:

Be it known that I, AUGUSTUS B. CHILDS, of 16 Mark Lane, London, England, have invented a certain new and useful Improvement in Car-Ventilators and Dust-Deflectors; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of a car-window with my improvement applied thereto. Fig. 2 is a horizontal section of the same. Fig. 3 is a perspective view of the fixture detached.

My improvement relates to deflectors attached to the car on each side of the windows or doors, for the purpose of deflecting the current of air produced by the motion of the car, thereby preventing the dust and cinders from entering the car.

The invention consists in the construction and arrangement of parts, as hereinafter more fully described.

A represents the side of a car, and B is one of the windows. C C are the deflectors, arranged on opposite sides of the window, and extending a little above and below the same. They are usually made about six inches wide, and are hung on pivots, so as to change their position automatically under the action of the wind. Under motion they stand backward at an angle of about forty-five degrees, more or less, so that all dust, cinders, &c., which strike them at the backward angle will be thrown off away from the windows or door, as indicated by the arrows in Fig. 2, and will not enter the car.

When the motion of the car is reversed, the deflectors shift automatically upon their pivots to the opposite position by the pressure of the wind, so that in running in either direction the deflectors will exclude the dust.

The deflectors may be made of wood or any other suitable material, or a frame may be used provided with glass, canvas, or wire-gauze, and they may be attached on each side of the doors or windows, or both.

To make these deflectors convenient in use, also to gage the angle to which they adjust themselves, and, furthermore, to easily apply them to cars now in use, some convenient fixtures must be used for pivoting the same, so that they will turn easily. I prefer the following: D D are metallic edge-plates or shoes, attached fast by screws to the top and bottom edges of the deflectors. They are preferably made concave in cross-section, so as to embrace the said edges, and thereby increase the strength. At the inner ends they have pivots *g g*, which form the axes upon which the deflectors turn. E E are the bearings, which support the pivots *g g*. These bearings are constructed with a flat leaf, *h*, which is screwed to the wood-work, and also with beveled wings *i i*, which stand in opposite directions at an angle of about forty-five degrees, more or less. In the center is the box *k*, in which the pivot rests. The edge-plate D rests between the wings *i i*, and in the backward and forward motion of the deflector, in changing position, the plate D strikes the wings *i i*, thereby gaging the position of the deflector.

The sides of the plates D D have, preferably, rubber packings *p p*, which strike the wings and prevent shock.

The devices above described are in convenient and simple form for attaching the deflectors to the cars. The bearings E have simply to be screwed in place, and furnish their own stops to the deflector without allowing the latter to strike the wood, which it would soon mar and wear away. The edge-plates D D obviate the same wear upon the deflector, and, furthermore, give strength to the latter by incasing their edges in iron.

I am aware that ventilating or deflecting wings have been used in car-windows; such I do not claim

What I claim as new is—

1. The swinging self-adjusting deflectors C C, constructed with the metallic edge-plates D D, in combination with the bearings E E, provided with the angular wings or stops *i i*, as shown and described, and for the purpose specified.

2. The bearings E, constructed with the angular wings or stops *i i*, for gaging the

throw of the deflectors in opposite directions, and with the boxes *k*, for receiving the pivots of the deflectors, as herein shown and described.

3. The metallic edge-plates D D, made concave, to receive and hold the ends of the deflectors, and provided with the solid pivots *g g*, as shown and described, and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

AUGUSTUS BRYANT CHILDS.

Witnesses:
GEO. MILLER,
JOHN GIRTON.

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