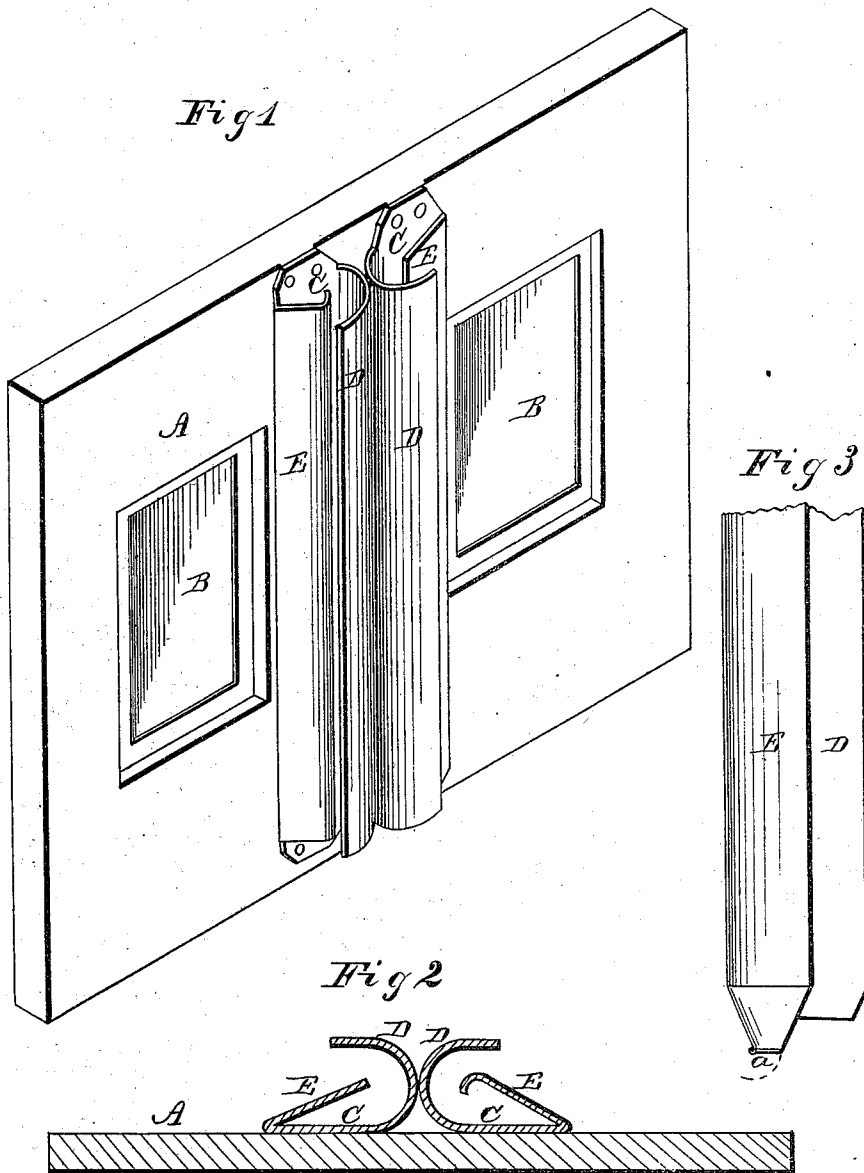


D. E. DUTROW.

Cinder-Fenders for Railroad-Cars.

No. 149,846.

Patented April 21, 1874.



Witnesses.
H. C. Fairfax
Wm. H. Fitzhugh

Inventor.
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UNITED STATES PATENT OFFICE.

DAVID E. DUTROW, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO HIMSELF AND HENRY F. A. NIEBUHR, OF SAME PLACE.

IMPROVEMENT IN CINDER-FENDERS FOR RAILROAD-CARS.

Specification forming part of Letters Patent No. **149,846**, dated April 21, 1874; application filed April 4, 1874.

To all whom it may concern:

Be it known that I, DAVID E. DUTROW, of Washington city, in the County of Washington and District of Columbia, have invented certain new and useful Improvements in Cinder-Fenders for Railroad-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The object of my invention is to provide a cheap and simple, yet effective, device, whereby the cinders from a locomotive may be prevented from passing into the cars through the windows when the same are raised or opened; and to this end the nature of my invention consists in a strip, constructed of metal or other suitable material, secured in a vertical position to the outside of a car, one side of said strip being bent in semicircular form to form a vertical gutter, and the other side bent in an inclined position and passing into said gutter, as will be hereinafter more fully set forth.

In the accompanying drawing, Figure 1 is a perspective view of a part of the side of a car, with my invention attached thereto. Fig. 2 is a horizontal section of the same; and Fig. 3 is a front view of my device, showing a modification thereof.

A represents the side of a railroad-car, and B B are the windows in the same.

My device for catching the cinders from the locomotive, and preventing them from entering the car when the windows B B are open, is constructed as follows: C is a vertical strip of metal fastened to the outside of the car, and which may extend the whole height thereof, if desired. One side of the strip C is bent outward and around in semicircular shape, forming, as it were, a vertical gutter D. The other side, E, of the strip is bent at an angle

and passes into the center of the gutter D. Two of these strips, bent as described, are fastened to the outside of the car A, between the windows B B, looking toward opposite ends of the car, in the manner shown in Figs. 1 and 2 of the drawing.

It will readily be seen that when the cars are in motion the cinders from the locomotive, which would otherwise enter the windows, are caught by the gutter, looking in the direction in which the car is moving, and, passing around the curve of the same, they get in between the parts C and E of the device, where there is no outlet for them except to drop down through at the bottom end.

The inner edge of the part E may be bent inward, or left straight, as described, both forms being shown in Fig. 2. The lower end of the device may be made funnel-shaped and provided with a valve, *a*, as shown in Fig. 3, but this I deem not material to my invention, the essence of which is the vertical gutter D and the shield E for the purposes described.

This device may be struck up of sheet metal, or cast in one piece, and it can be manufactured very cheap. It is simple in its construction, and durable, and effective in its operation.

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

The vertical plate C, provided with the gutters D and shield E, and arranged between the windows on the outside of a railroad-car, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 4th day of April, 1874.

DAVID E. DUTROW.

Witnesses:

WM. H. FITZHUGH,
JNO. S. DUTROW.