

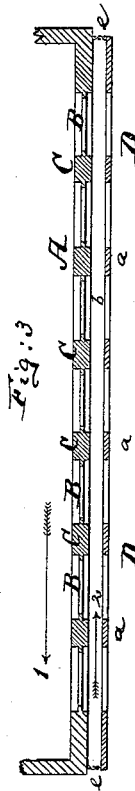
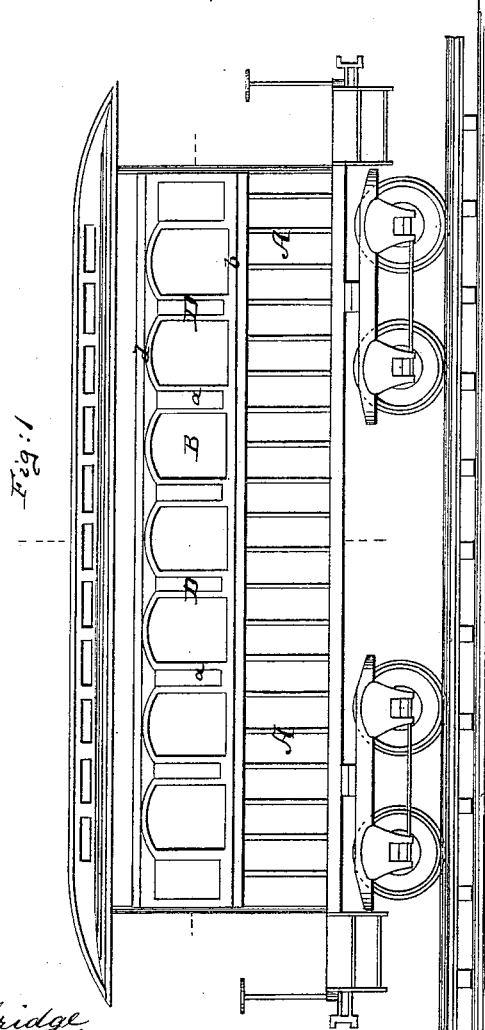
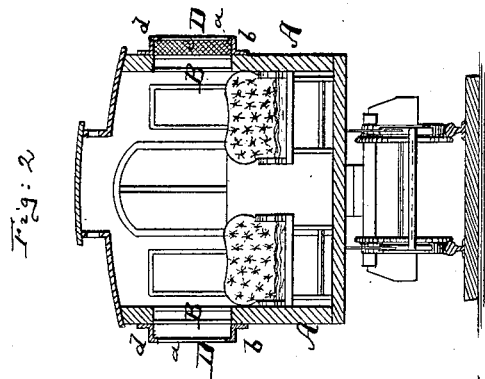
(No Model.)

W. A. BOYDEN.

DUST PROTECTOR FOR RAILWAY CARS.

No. 262,274.

Patented Aug. 8, 1882.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM A. BOYDEN, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO THE
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DUST-PROTECTOR FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 262,274, dated August 8, 1882.

Application filed November 30, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. BOYDEN, of Jersey City, in the county of Hudson and State of New Jersey, have invented an Improved Dust-Protector for Railway-Cars, of which the following is a specification.

Figure 1 is a side view of a railway-car having my improved dust-protector. Fig. 2 is a cross-section thereof, taken through the line of the windows of the car; and Fig. 3, a horizontal section thereof, taken also through the line of the windows.

Railway-cars are liable to admit large quantities of dust and smoke to the interior thereof, much to the annoyance of the occupants. Inventors have endeavored to obviate this difficulty, and dust-protectors of various kinds have been devised. Projecting shields or hoods that extended from the outer face of the car have thus far been usually resorted to.

The object of this invention is to devise a more effective means of excluding dust and smoke than that obtainable from the use of laterally-projecting shields or hoods. No provision is made where such shields or hoods are used for giving direction to the currents of dust and smoke other than that which they do have on approaching the side of a car. My invention gives direction to such currents of dust or smoke and prevents them from entering at the windows.

My invention consists in supplying the car with an outer wall, which has openings in line with the windows, thereby producing an air-channel open at both ends along each side of the car. In this air-channel a powerful current will be created in direction opposite to that in which the car is moved, said current serving to carry with it, if not to refract or repel, dust and smoke that may approach it. The said outer wall is perforated in line with the windows, so as not to interfere with the admission of light to the car or with the observation of the surrounding country by the occupants of the car.

In the accompanying drawings, A represents a car of suitable construction. B B are its windows; C, the posts or panels between the windows.

D, is my improved outer wall, placed parallel

with each side of the car on the outer side thereof. It is composed of posts or panels *a*, which are at a distance, say, of two or three inches (more or less) from the panels C on the outer side thereof, and which, at their upper and lower ends, are in suitable manner connected with the body of the car. Preferably these posts or panels *a* are at their lower and upper ends united by angle-irons or boards *b* and *d*, which join them to the body of the car.

As an ordinary railway-car moves through the air its tendency is to throw the outer air off its sides; but by my invention the air-currents are held parallel with the direction in which the car moves, as indicated by the arrows 1 and 2 in Fig. 3, the arrow 1 showing the direction of the car and the arrow 2 the direction of the air that passes by the car. In other words, the panels or posts *a*, being placed at a distance from the sides of the car, parallel therewith, or substantially parallel therewith, deflect the air and prevent it from leaving the sides of the car, holding it parallel therewith, and causing thereby a powerful current of air to pass alongside of the car, which current of air in ordinary cases is of sufficient power to prevent any dust or smoke from entering through the windows.

The panels or posts *a* are shown to be rigidly attached; but they may be pivoted so as to be swung on their vertical pivots to produce more or less flaring tunnels, into which the above-mentioned currents of air are received, and from each of which they are discharged into that next behind.

The front panel of the car may be united with a traversing sieve, *e*, which will prevent any dust or cinders from accompanying the air-current that travels in the channels which are produced by said posts or panels *a*.

I claim—

1. In a railway-car, the combination of the car-body having posts or panels C between the windows with the posts or panels *a*, held by connecting-pieces *b* and *d* at a distance from the posts or panels C to form a channel on the outer side of the car for a current of air traveling in a direction opposite to that in which the car is moved, substantially as specified.

2. The combination of the railway-car with the outer posts or panels, *a*, and traversing sieve *e*, substantially as described.

3. A railway-car constructed, substantially
5 as described, with an outer double wall along that part of the car which has the windows B, said double wall furnishing end openings for the admission and escape of counter currents

of air, and side openings that are aligned with the car-windows B, substantially as specified. 10

This specification of my invention signed by me this 26th day of November, 1881.

WILLIAM A. BOYDEN.

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