

William M. K. Thornburn's Platform for Railroad Cars.

[20.]

2 Sheets--Sheet 1.

Fig. 1

No. 119,545.

Patented Oct. 3, 1871.

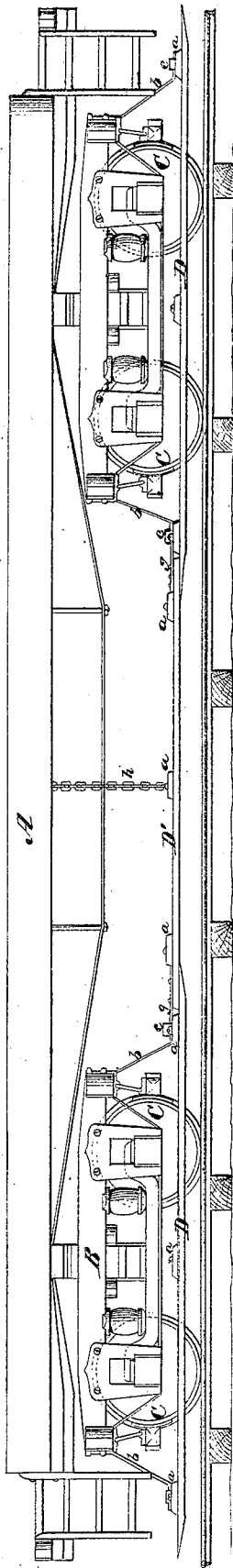
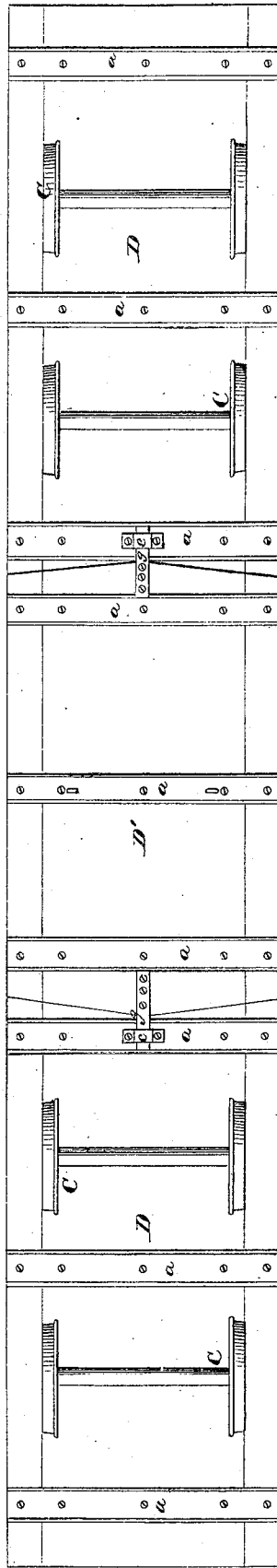
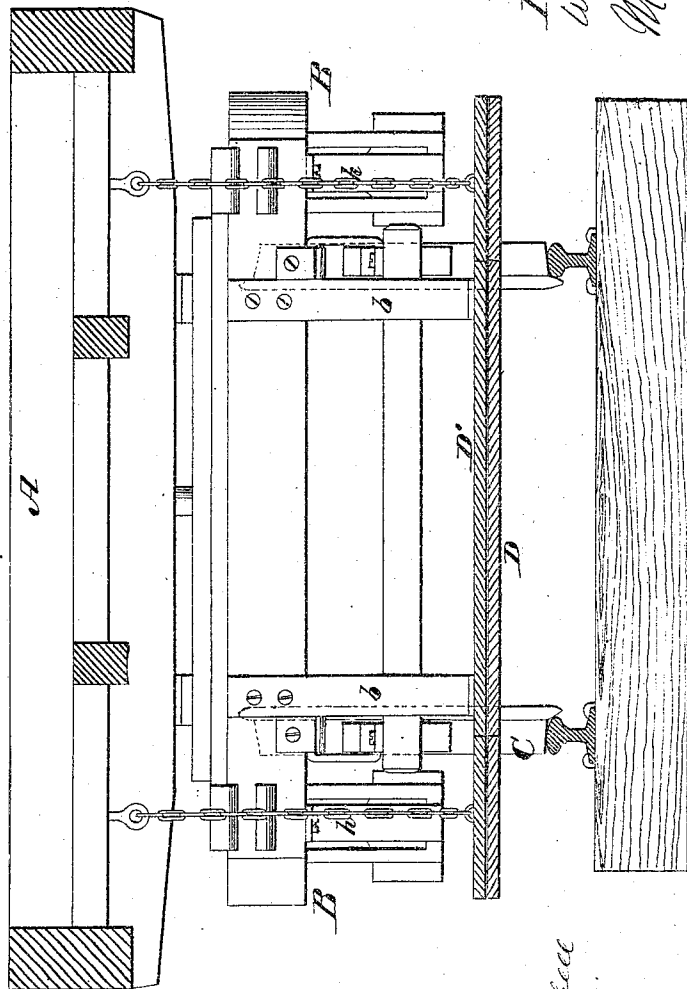


Fig. 2



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UNITED STATES PATENT OFFICE.

WILLIAM M. K. THORNTON, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN DUST-SHIELDS FOR RAILWAY CARS.

Specification forming part of Letters Patent No. 119,545, dated October 3, 1871.

To all whom it may concern:

Be it known that I, WILLIAM M. K. THORNTON, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and Improved Sectional Dust-Shield for Railroad Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1, Plate 1, is a side elevation of two trucks, showing the platform applied thereto. Fig. 2, Plate 1, is a top view of the platform and truck-wheels. Fig. 3, Plate 2, is a section taken vertically and transversely through a car-bed and through my platform.

Similar letters of reference indicate corresponding parts in the several figures.

In the plans heretofore proposed for preventing dust from rising beneath railroad cars while in motion, a platform has been suggested, and flexible connections between one platform and another have also been suggested; but no provision has been made for motion in one portion of the platform independent of another portion of the same car. Further, the platforms and pieces forming channels or tunnels above referred to have been rigidly suspended from the car-body and truck-frames. Practical tests have demonstrated that a light board or frame as long as the car-body cannot be used any length of time beneath a car in motion before it will be wrenched from its suspenders, or it and the suspenders racked away from their points of attachment. Further, that shrinkage or warpage renders it necessary that the connections and suspenders should be flexible and adjustable or yielding.

The nature of my invention consists, first, in making each dust-preventing platform in sections and joining these sections together by means of pivotal connections, which allow the truck sections of the platform to swing and move in conformity with the motions of the trucks and car-body, while the intermediate section of the platform may remain stationary or make its own independent movements as necessity may require. My invention consists, second, in suspending from the car the intermediate section of the platform by chains or adjustable flexible suspenders, and the truck sections from the trucks themselves, and having the said intermediate section

and truck sections to overlap one another, and so connected that the sections have a pivotal motion upon one another; all as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will explain its construction and operation.

In the accompanying drawing, A represents the bed of a railroad car; B B, the trucks; and C, the wheels, all of which may be constructed in the usual well-known manner. D D' D are three horizontal sections, which constitute a platform or dust-guard, and which are arranged beneath the trucks B B as near as practicable to the rails. The two sections D D are secured in place by means of suspenders *b b*, and are slotted to receive through them the truck-wheels C. The intermediate section D' is suspended from the sills A by means of chains *h*, and connected at its ends to the ends of the two sections D D by means of bolts *g g* and staples *c c*, which prevent lateral displacement of said intermediate section. Other means than those above set forth may be adopted for sustaining the platform sections. Each one of the sections D is composed of three longitudinal sections, which are secured together by battens *a a*, or by means of dovetail tenons and slots, or in any other suitable manner, which will allow the narrow side strips to be detached from the intermediate wider section, when it is desired to remove a section, D, from or apply one to a car and to remove the wheels or axles for repair. The platform sections represented in the drawing are of wood, strengthened by means of battens *a*; but in carrying my invention into effect sheet metal or canvas stretched on frames may be adopted. I prefer to use a material which is not liable to warp or sag, as it is important to have the platform maintain a horizontal plane. The platform is preferably made at least as wide as the bottom of the car-bed, so as to extend beneath the journal-boxes and all other attachments to the trucks which would in any manner offer obstruction to the free passage of air beneath the platform. It is the trucks and their attachments which create strong currents of air when a car is in motion and cause the dust to rise, and my platform should be arranged beneath all of such obstructions to be effective. If desirable the sides of the platform sections may be turned up-

ward, and where their ends overlap the edges may be beveled, as shown in the drawing, Fig. 1, which will prevent these edges offering obstruction to the air, and thereby creating currents beneath the platform. At the ends of each platform I propose to have hinged aprons, which will overlap the ends of platforms of adjoining cars and close the spaces necessarily left between them, at the same time allowing freedom of motion and preserving a continuity of platform from one end of a train to the other. The sections can be made sufficiently strong at a comparatively small cost, so that in case of accident they will not increase the damage or danger; or that part of each platform section which is between and alongside the wheel can be made sufficiently substantial to prevent a truck when thrown from the rails from dropping upon the ties and thereby tearing up the track and doing other serious injury or damage; or in the event of the breaking of a wheel or an axle, the platform would strike the rails and slide thereupon, thus preventing the train from being stopped suddenly. The concussion of air created by the trucks and other obstructions under cars coming in contact with the ballast is the immediate and only cause of dust rising. With my platform the currents of air are prevented from striking the ground; con-

sequently no dust will rise. The platform will also be the means of saving many lives, for should a person fall between two cars, or slip while getting on or off of them, he will be prevented from coming in contact with the wheels, as the platform will arrest his fall and support him safely. In addition to the above-named advantages attending my platform I might mention that it will keep the journal-boxes and other wearing-parts, also the upholstering, furniture, and painting, comparatively free from dust.

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

1. A platform for one or each car of a railroad train, made in sections, which are connected or applied together so as to have independent pivotal movements, substantially as and for the purpose set forth.

2. The intermediate section D', suspended by flexible suspenders from the car-frame, in combination with the pivotal end or truck sections suspended from the trucks, substantially as and for the purpose described.

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Witnesses:

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