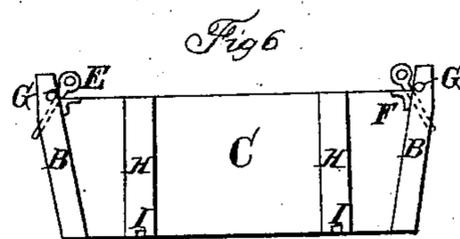
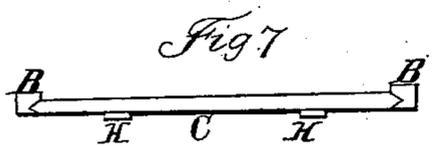
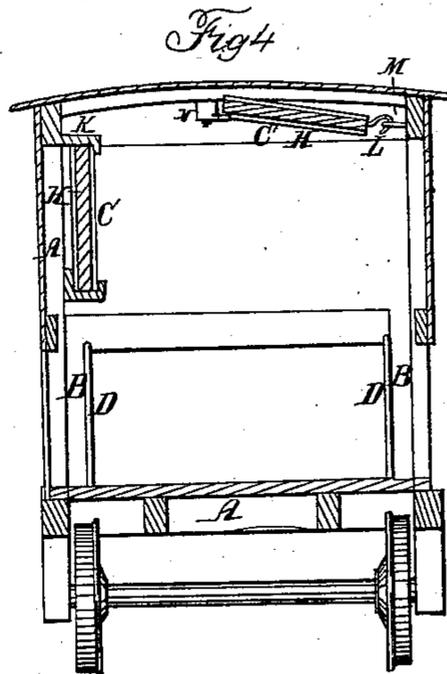
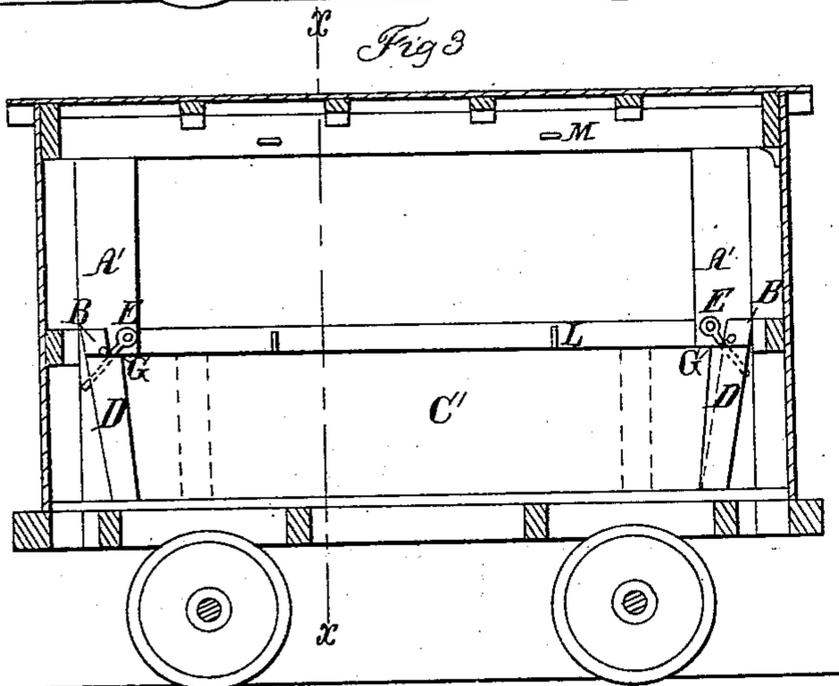
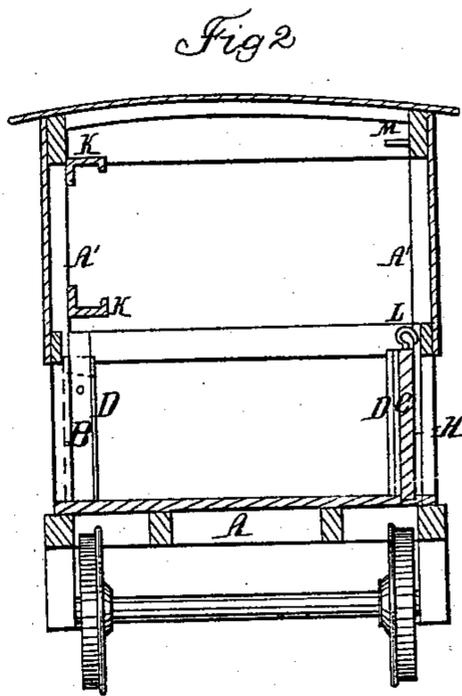
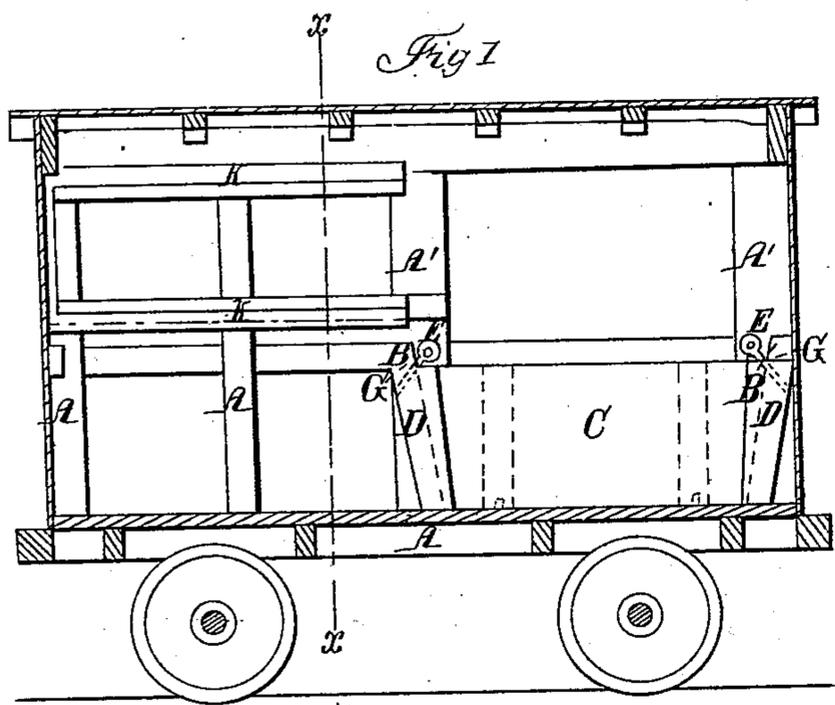


B. MARTIN.

Car Door.

No. 64,236.

Patented Apr. 30, 1867.



Witnesses.

Alex A B Klauke
Chas A Pettit

Inventor.

B Martin
By Munnely
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United States Patent Office.

B. MARTIN, OF PRAIRIE DU CHIEN, WISCONSIN.

Letters Patent No. 64,236, dated April 30, 1867.

IMPROVED DOOR FOR RAILWAY CARS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, B. MARTIN, of Prairie du Chien, in the county of Crawford, and State of Wisconsin, have invented new and useful improvements in the construction and fitting of Doors for Grain Cars; and I do hereby declare the following to be a full, clear, and exact description thereof, so that any one skilled in joinery will be enabled to construct the same reference being had to the annexed drawing, making part of this specification, in which—

Figure 1 is a vertical longitudinal section of a grain car, showing an interior elevation of my invention.

Figure 2 is a transverse section on the line $x x$ of fig. 1.

Figure 3 is a longitudinal section of a car, showing in elevation a door of greater length than that shown in fig. 1.

Figure 4 is a transverse section in the line $x x$ of figs. 1 and 2, showing the manner of disposing of the doors when they are removed from the apertures which they close.

Figure 5 is a top edge view; and

Figure 6 is an outside elevation of a door.

Figures 7 and 8 show modifications of the manner of fitting the ends of the doors to their seats.

In all the figures like parts are indicated by the same letters of reference.

A A A' A' represent the bed and framework of a car for carrying grain, in general construction similar to other cars for the same purpose. The uprights A' A' are wider than the others, and have secured upon them cleats B B, set at angle with them, so that the space between the upper ends of said cleats shall be wider than that between their lower ends, which rest on the floor. The door C C C' C' is of the form of a trapezium, its ends being sloped to suit the inclination of the cleats B B, so that, when the door rests with its lower edge on the floor, and is between the cleats, its ends shall be in contact with them from top to bottom. To prevent the door from falling inward, cheeks D D are secured on the inside faces of the cleats B B, which project over the ends of the door, as seen in figs. 1 and 2, and in plan, fig. 5. The uprights A' A' prevent the doors from falling outwards. The doors are kept down in their places, when closed, by the pins E E, which pass over the salient upper corners of the doors, and downward through holes in the cleats B, in a direction which will be at right angles with a line bisecting the angle formed by the top and end of the door. When the door is made of wood, a metallic shoe, F F, fig. 6, having a notch on the corner, is placed on each of the upper corners of the door, against which the pin E will bear, while a bolt, G, is passed through the cleat B, so that the pin E shall be between the shoe F and the bolt G, and be in contact with both when in place, as shown, in order to prevent the corners of the door and the hole in the cleat B from becoming worn. The pins E E have eyes at their upper ends, by which they may be secured from loss by being attached to the car with a chain or thong. On the outside of the doors are cleats or braces H H, bolted firmly to the doors, bracing them, and affording the means of easily starting them from their bearings, the recesses I I, at the bottoms of the cleats H, being for the purpose of receiving a bar for prying the doors up if they should have become jammed in their seats. As soon as started, the doors are easily removed, as they are no longer in contact with the cleats B. Ledges K K, figs. 1, 2, and 4, are fastened along the inside of the car, and form a pocket for the reception of the door when it is removed from its seat, the door being slid in endways. (See fig. 4.) The pocket may be horizontal or inclined. Where a door is used that would be too long to stow in a pocket, as above described, the door may have hooks L L, figs. 3 and 4, secured upon its upper edge, by which it may be hung to the eyes M M, fastened to the inside of the car, near the top, so that the lower edge of the door may be swung up towards the roof of the car, and be held there by button N, on the under side of the carlins, fig. 4, or by a spring-catch, or any equivalent device.

The doors and their fittings may be of wood or metal, or a combination of material.

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

As an improvement in railroad cars for carrying grain in bulk, I claim the combination of the trapezoidal door C, inclined cleats B, cheeks D, cleats H, recesses I, pins E, notched shoes F, and bolts G, all constructed and arranged to operate as and for the purposes specified.

To the above specification of improvement in doors for grain cars, I have signed my hand this 7th day of May, 1866.

B. MARTIN.

Witnesses:

JOHN JACKSON,
ORSON JACKSON.