

(No Model.)

L. HETFIELD.

APPARATUS FOR DELIVERING COAL FROM CARS.

No. 255,169.

Patented Mar. 21, 1882.

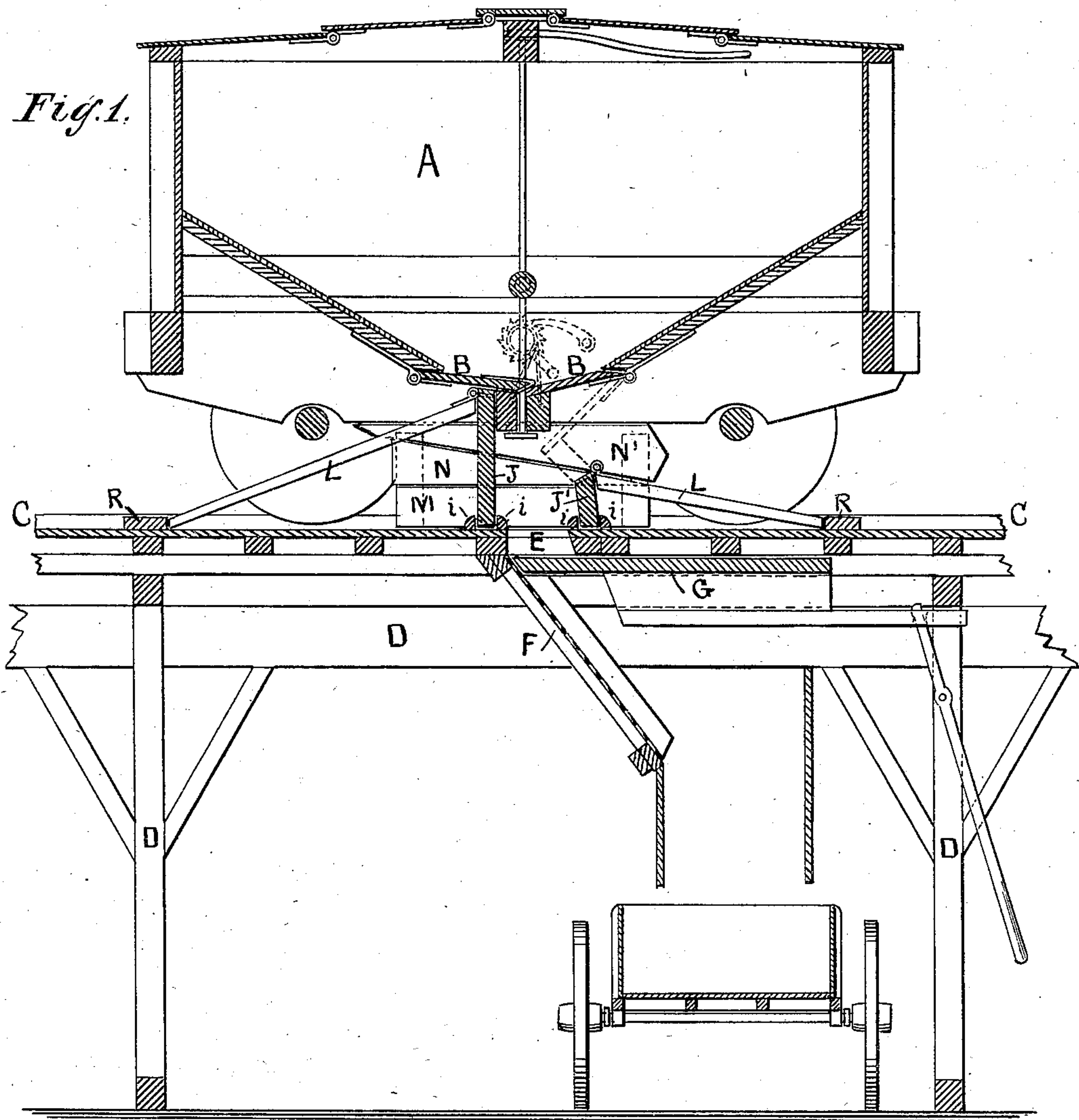
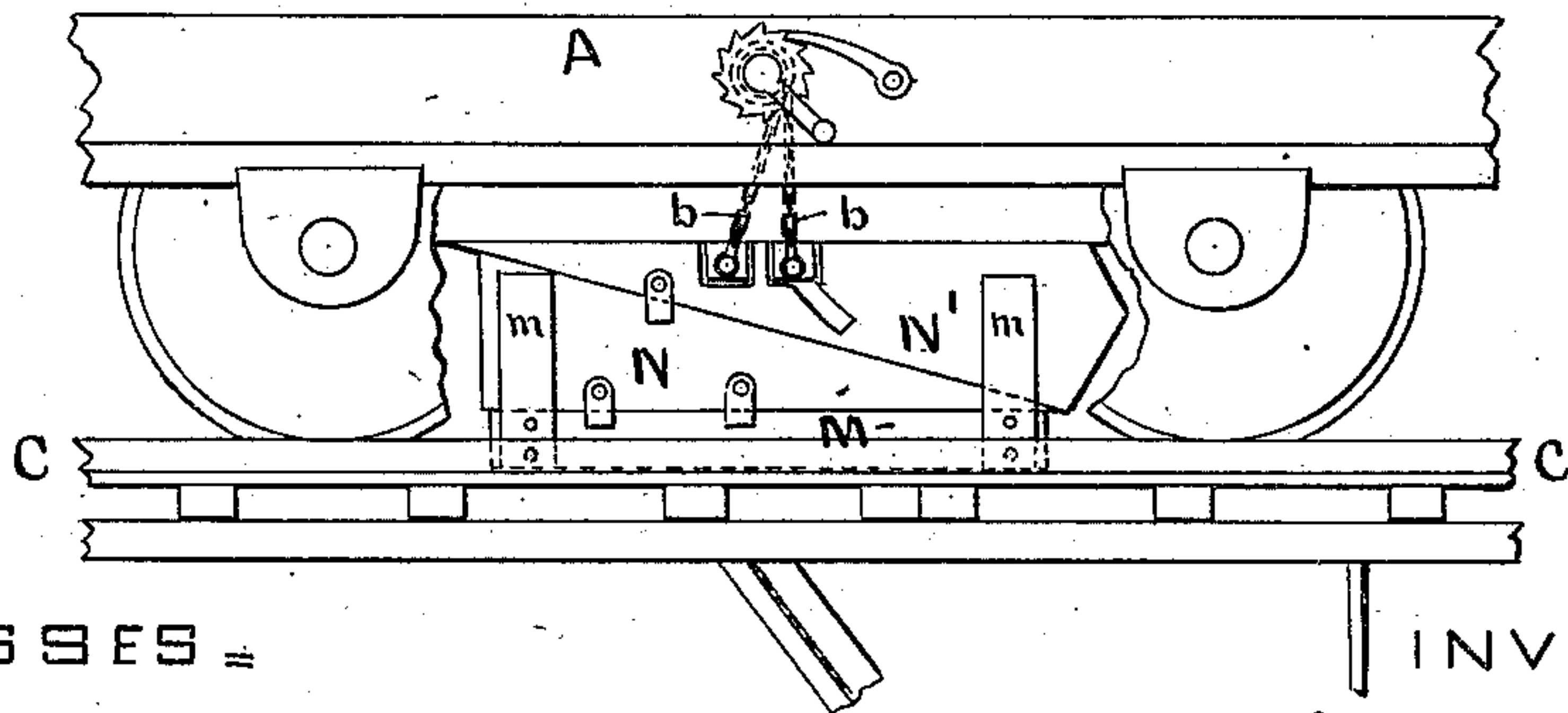


Fig. 2.



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APPARATUS FOR DELIVERING COAL FROM CARS.

SPECIFICATION forming part of Letters Patent No. 255,169, dated March 21, 1882.

Application filed December 31, 1881. (No model.)

To all whom it may concern:

Be it known that I, LEVI HETFIELD, a resident of Plainfield, county of Union, and State of New Jersey, have invented certain new and useful Improvements in Apparatus for Delivering Coal from Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to apparatus for loading carts and other vehicles from railroad-cars.

It has for its object the division into any required quantities, as desired, and the delivery directly into carts or other vehicles or receptacles, as needed, of the coal contained in a car, without manual labor in shoveling or handling the same, and without the need of the high and expensive trestle-work required in the ordinary dumping and storage of coal from railway-cars.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of my apparatus, illustrating a car in position to be unloaded and a wagon in place to receive its load. Fig. 2 is an elevation of the lower portion of the side of the car, illustrating the combination therewith of the side boards inclosing the end spaces between the car and the track.

A is a hopper coal-car, fitted with bottom doors, B B', closed by means of chains b b, Fig. 2, drawn up by a crank and windlass, and preferably constructed in accordance with the specification of the Letters Patent No. 217,286, granted to me July 8, 1879.

The coal-car A is run upon a track, C, laid in the usual manner upon a low trestle-work, D D. This trestle-work need only be of sufficient height to allow a wagon to drive under a screen and chute constructed to deliver the coal into the wagon-bed. The space between the rails upon the cross-ties of the trestle is floored over, and a comparatively narrow transverse opening, E, is left at a suitable point in said flooring. Beneath this opening E a screen, F, is secured at a suitable inclination to constitute the bottom of a chute, which is properly inclosed, so as to deliver the coal at the required point. The opening E in the flooring is controlled by a horizontal sliding

gate, G, which may be placed upon rollers, and which may be operated from the end of the trestle or other suitable point by means of a lever, H, or other equivalent appliance.

Upon each side of the opening E are fitted strips *i i' i''*, which form grooves to receive and retain the lower edges of side boards, J J', adapted to stand vertically in said grooves, and to be supported in an upright position by means of brace-bars L L, hinged centrally to the upper edge of each board, and extending thence to a stay-block, M, secured to the flooring at a proper distance from said upright boards. One of the side boards, J, is of such width as to fill the space between the flooring and one of the doors, B, of the car. The other, J', is of such width as that when fitted under the opposite door, B', the door may drop down thereon far enough to permit a free discharge of coal from the car. The open door, resting upon this side board, closes entirely the space between the car and the flooring on that side, the space under the opposite door being closed by the side board, J. The openings between the bottom of the car and the flooring at each end of the side boards are closed by adjustable end pieces. The lower piece, M, is adapted to rest upon the floor against the rail, and is provided with upright cleats *m m*, Fig. 2, adapted to afford support to the superimposed pieces N N'. These superimposed pieces N N' are made of a triangular or wedge shape, so that when slid in endwise, one upon the other, upon the lower piece, M, they will adapt themselves to the space left between said lower piece, M, and the bottom of the car, whether it be more or less, and be thus ready for use with cars varying in height from the track. The side boards, J J', adjust themselves to the differences in the heights of the cars by variations of inclination, the drawing Fig. 1 illustrating them as applied to a car of the greatest height. As the side pieces, J J', are of such length as to fit closely between the end pieces, M M, when the latter are in position they form therewith a complete casing or box about the opening E between the flooring and the car under the doors of the car; this casing being closed by the slide or gate G.

In the use of my apparatus the coal-car is run upon the trestle D D until its bottom doors

are in position over the chute-opening E. The wheels are then chocked by suitable blocks, the side pieces, J J', inserted and braced in position, and the end pieces, M N N', slid into place so as to inclose the space under the doors about the chute-opening E. If now the door B be opened, it will drop upon the side piece, J', and the coal from the car will fill the inclosure over the chute. A cart or wagon being now driven under the chute, the gate G is opened and the coal, falling through the opening upon the screen, will pass down over it, and, being thus cleaned in its course, will be delivered in good condition directly into the cart. So soon as the cart is loaded a further supply is shut off by closing the gate G, and the loaded wagon being driven out, another takes its place. In this manner the entire load of coal is readily and very rapidly delivered into the carts in quantities as required. The cost of storing, handling, and shoveling the coal two or three times is thus avoided, and the coal, direct from the mines in covered cars, is loaded up clean and unbroken, free from dust and dirt, with the utmost ease and expedition, without the expense of high trestles, large coal-bins, and extensive coal-yards.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with an elevated railway-track, a flooring between the rails of the track, and a suitable screen or chute arranged under the track to deliver coal from the flooring into the wagons or other receptacles beneath, of removable side boards, J J', and end boards, M N N', adapted to inclose the space about the opening into the chute between the flooring and the bottom of the car standing upon the track, substantially in the manner and for the purpose herein set forth.

2. The combination, with each other and with an elevated railway-track, a flooring laid between the rails of said track, a coal-chute beneath said flooring, and an inclosure about the mouth of said chute above the flooring, of one or more gates or slides, G, adapted to control the opening into the chute, substantially as and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEVI HETFIELD.

Witnesses:

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