(No Model.)

W. G. LANE.

COAL DUMPING CAR.

No. 501,148. Patented July 11, 1893.

Fig. 1

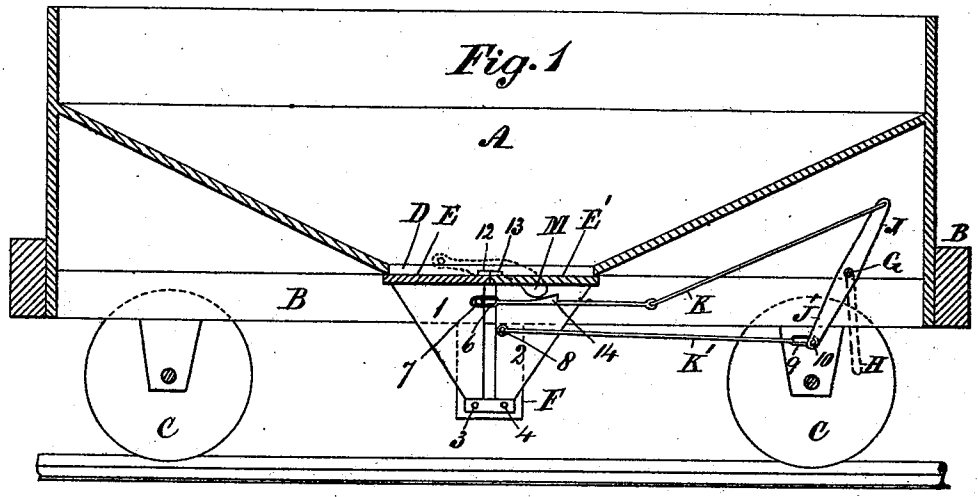


Fig. 2.

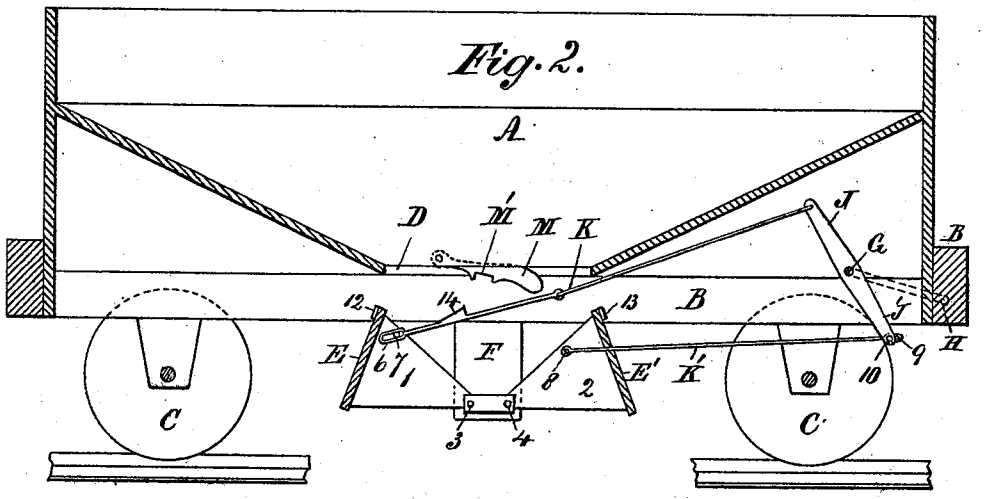
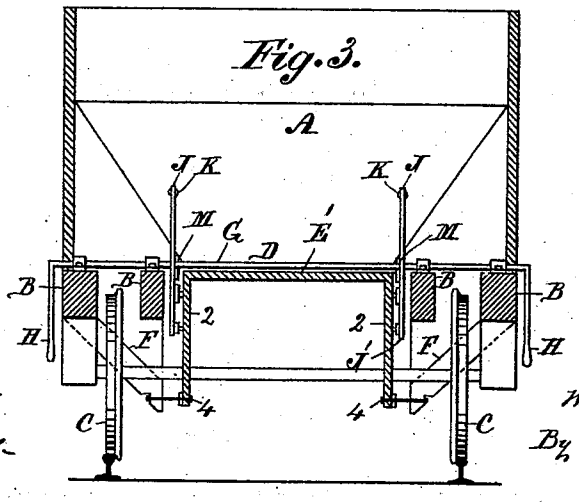


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM GEORGE LANE, OF PICTOU, CANADA.

COAL-DUMPING CAR.

SPECIFICATION forming part of Letters Patent No. 501,148, dated July 11, 1893.

Application filed April 11, 1893. Serial No. 469,981. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GEORGE LANE, of Pictou, in the Province of Nova Scotia, in the Dominion of Canada, have invented certain new and useful Improvements in Coal-Dumping Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1, is a longitudinal vertical section of a hopper car showing the dumping doors closed. Fig. 2, is a like view showing the dumping doors open, and Fig. 3, is a transverse vertical section showing the doors closed.

My invention has for its object to construct and operate a hopper car to carry coal and adapted to dump the load instantly.

My invention consists in the construction and combination of parts as will be hereinafter described and specified in the claims.

A, is the hopper of the car superposed on a car frame B, which is mounted on wheels C.

D, is the outlet of the hopper which outlet is closed by doors E, E′, having ends 1, 2, which are pivoted by pins or pintles 3, 4, to a bearing F, secured to the car frame, and extending inwardly and downwardly below the mouth or outlet of the hopper, whereby the doors will shut from opposite directions and when said doors are released, fall away from one another, clear of the outlet of the hopper, to permit the coal to have free and unbroken dump or fall from the hopper.

The doors E, E′, are operated simultaneously to open and close, by a rock shaft G, journaled across the frame of the car and provided at the ends with a lever H, to rock said shaft from either or both sides of the car, and said rock shaft carries radial arms J, J′, extending in opposite directions. The upper end of the arm J, is connected to the most distant door E, by a rod K, having a loop 6, which travels on a headed pin or bolt 7, driven in or secured to the end 1, of the door E, and the lower end of the arm J′, is connected to the nearer door E′, by a rod K′, which is pivoted to the end 2, of the door E′, by a pin and eye 8. The opposite end of the rod K′ is provided with a loop 9, which travels on a headed pin or bolt 10, driven into or secured to the arm J′, near the lower end. When the levers H, are operated in one direction, the rods K, K′, pull and push the doors open, and when moved in the opposite direction, the rods K, K′, act reversely and push and pull the doors closed. The loops at the ends of the rods K, K′, allow freedom of action to said rods to open and close the doors.

M, is a gravitating latch pivoted at one end to the outside of the hopper, immediately above the doors E, E′, and said latch is provided with a notch M′, which engages lugs 12, 13, on said doors to keep them locked, and said latch is lifted out of contact by a cam 14, on rod K, engaging the latch when said rods K, K′ are pushed to open the doors, the doors then falling by gravitation.

I claim as my invention—

1. The combination with a car frame having a hopper A, of the doors E, E′, having ends 1, 2, pivoted to a bearing F, below the outlet of the hopper, a rock shaft G, journaled across the car frame and carrying radial arms J, J′, and rods K, K′, connecting said arms to the respective doors, whereby the doors are respectively pulled and pushed from the outlet of the hopper and pushed and pulled together by rocking said shaft by the levers H, as set forth.

2. The combination with a car frame B, having a hopper A, of the doors E, E′, having ends 1, 2, pivoted to a bearing F, and provided with lugs 12, 13, the gravitating latch M, having a notch M′, engaging said lugs, and the push rod K, connecting with one of said doors, said rod provided with a cam 14, to lift the latch out of engagement to permit the doors to open, as set forth.

WILLIAM GEORGE LANE.

Witnesses:

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