

(No Model.)

J. SCULLY.

DUMPING CAR.

No. 347,523.

Patented Aug. 17, 1886.

Fig. 1.

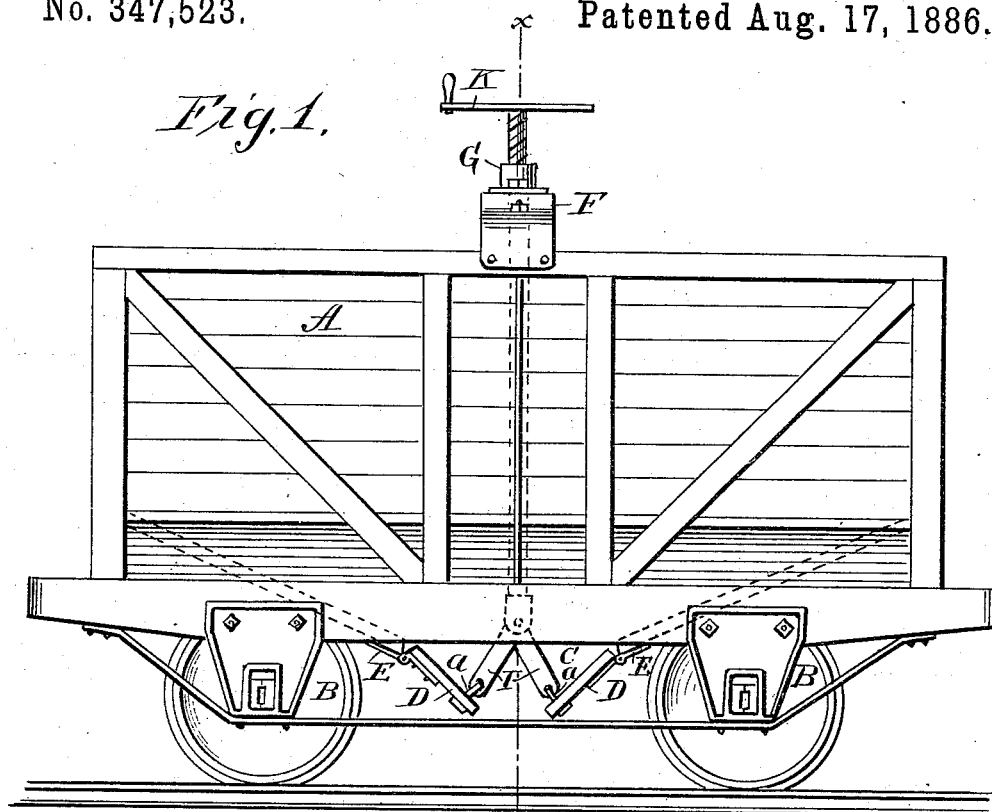


Fig 2

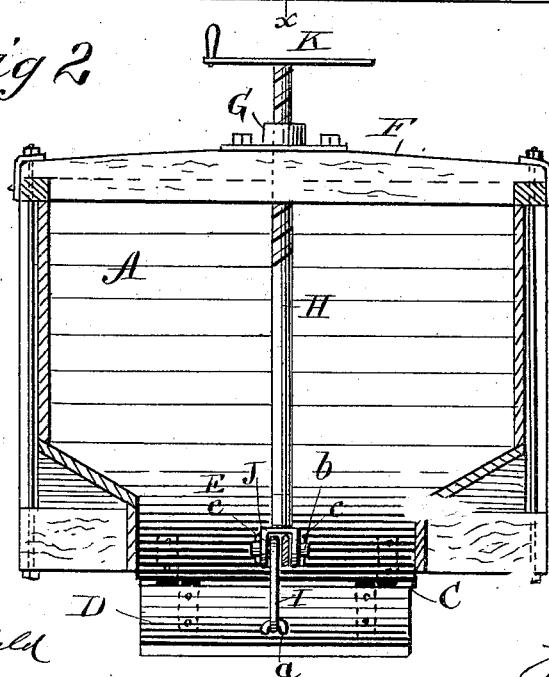
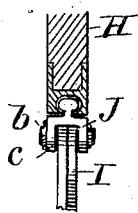


Fig. 3.



WITNESSES:

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JOHN SCULLY, OF SOUTH AMBOY, NEW JERSEY.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 347,523, dated August 17, 1886.

Application filed January 23, 1886. Serial No. 189,528. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCULLY, of South Amboy, in the county of Middlesex and State of New Jersey, have invented a new and Improved Dumping-Car, of which the following is a full, clear, and exact description.

My invention relates to that class of dumping-cars commonly used for transporting coal, and which discharge the load through an opening in the bottom of the car-body, the discharge-opening being closed with two drop-doors hinged to the bottom of the car each side of the opening. Heretofore these doors have been operated and held in a closed position by means of chains, which are inconvenient to handle, and which have no positive action in opening the doors, and this latter is a serious objection, for in case the doors become fast in closed position by frost or otherwise they have to be pried open with crow-bars, resulting in a waste of time and labor. Furthermore, with the chains there is no means to regulate the discharge of coal or other material from the body of the car.

The object of my invention is to overcome these difficulties; and to this end my invention consists of the combination, with the car-body and doors at the bottom of the car, of a vertically-movable bar, whereby the doors may be opened and closed by a positive movement of the bar longitudinally.

The invention also consists of the construction, arrangement, and combination of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a dumping-car having my invention applied thereto. Fig. 2 is a transverse sectional elevation of the same, taken on the line *xx*, Fig. 1; and Fig. 3 is a detailed sectional view of the lower end of the operating-bar and connecting-links.

The body A and the trucks B are of the usual construction, the body having a central discharge-opening, C, at the bottom. The opening C is adapted to be closed by the doors D D, hinged to the adjacent edges of the inclined bottom boards, E E, as shown in Fig. 1.

Across the top of the body A is secured

a heavy cross-piece, F, which is arranged centrally to the discharge-opening C, and which supports the heavy screw plate or cap G, in which works the vertical bar H, which is screw-threaded at its upper end to match internal screw-threads made in the cap G.

The lower end of the bar H is connected to the doors D D by the connecting rods or plates I I, which are secured at their lower ends to the inner surfaces of the doors by means of staples *a*, and at their upper ends to the bar H by means of the pin or bolt *b*, which passes through the connecting-plates I and cheek-pieces *cc* of the head or block J, which is swiveled to the lower end of the bar H, as shown in Fig. 3.

To the upper end of the bar H is secured a hand-wheel or lever, K, by which the rod or bar H may be conveniently revolved in either direction for opening and closing the doors D. When the bar H is turned to move downward, it acts with a positive downthrust upon the doors D, and forces them open, and by means of the bar H the doors D may be held at any desired angle to regulate the discharge, or they may be forced entirely open to discharge the load as rapidly as possible; and in addition to these advantages I would state that there will be a great saving of cars by avoiding the use of crow-bars, by which the doors of the cars are often unavoidably broken, in which case the cars have to be taken out of service to be repaired. The use of crow-bars in drilling holes down through the coal causes much breakage to it in endeavoring to force the doors open to allow the coal to run out. This my invention would also obviate. Again, the chains now in use are often broken, in which case the doors and chains swing under the cars while running on the railroad, and should they catch in the frogs or switches are very apt to cause an accident or much damage. In winter when the coal is badly frozen in the cars many hours are often spent in getting the doors open, and in some cases the sides have been broken out before the car could be unloaded, when it was found to be impossible to get the doors open by means of the crow-bar. This difficulty and loss of time will be entirely avoided on the application of the vertical bar, &c.

I am aware that it is not new to operate the swinging doors by means of worms, a quadrant, and a winch.

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

1. In a dumping-car, a vertically-movable bar held in a screw-cap and connected to the doors at the bottom of the car, substantially as and for the purposes set forth.

2. The combination, with the swinging doors of a dumping-car, of a rod, screw-threaded at its upper end and connected by links at its lower end with the free ends of said doors, and a nut held on a cross-beam of the car and engaging the threaded end of said rod, substantially as shown and described.

3. The car-body A, having discharge-opening C at the bottom, and the drop-doors D for closing the same, in combination with the vertical bar H, connected to the doors by connecting-rods I, and working in a cap-plate, G, held at the top of the car on the cross-piece F, substantially as and for the purposes set forth.

4. The screw-bar H, provided with the swiveled head J at its lower end and arranged to work in the screw-cap G, in combination with the doors D, connected to the head J by the connecting-rods I, substantially as and for the purposes set forth.

JOHN SCULLY.

Witnesses:

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A. A. CHASE.