

E. L. STOLTZFUS & I. B. MILLER.
DUMP CAR AND OPERATING MECHANISM.
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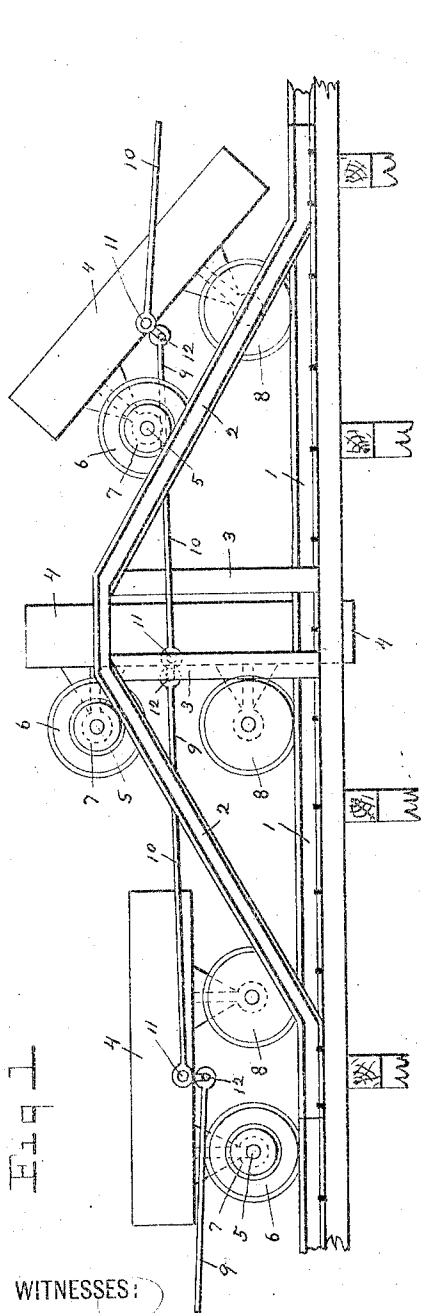


Fig 1

WITNESSES:

Anna Saunaman.

Mabel L. Lefene.

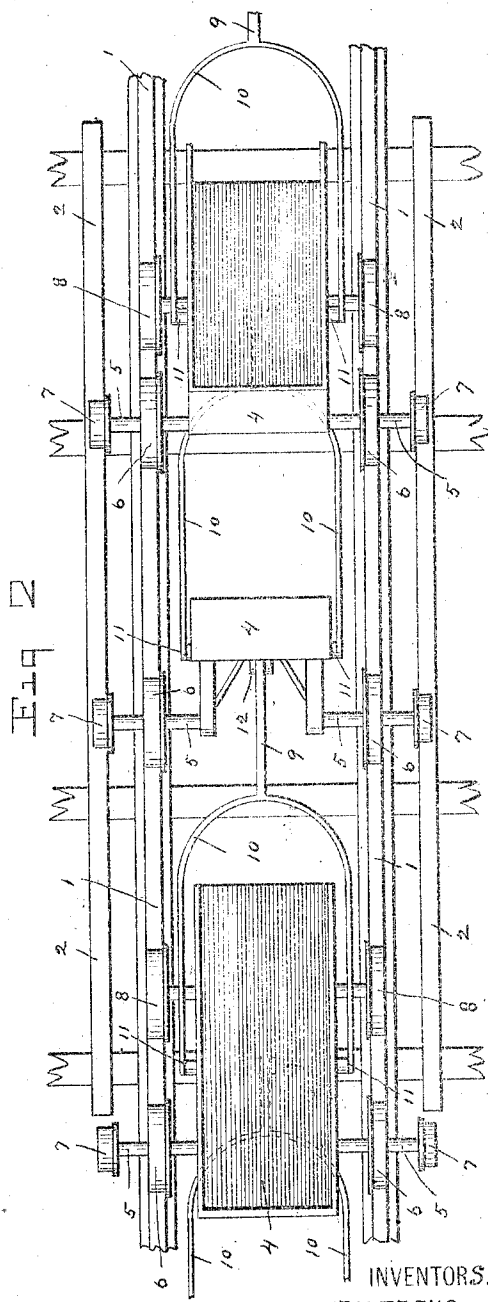


Fig 2

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ENOS L. STOLTZFUS, OF GAP, AND ISAAC B. MILLER, OF PARADISE, PENNSYLVANIA.

DUMP-CAR AND OPERATING MECHANISM.

No. 928,286.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed September 14, 1908. Serial No. 452,837

To all whom it may concern:

Be it known that we, ENOS L. STOLTZFUS and ISAAC B. MILLER, citizens of the United States, residing at Gap and Paradise, respectively, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Dump-Cars and Operating Mechanism, of which the following is a specification, reference being had therein to the accompanying drawing.

Our invention relates to improvements in dump-cars, means for operating the same, and means for returning the same to the main track.

Dumping-cars as constructed in the usual way are provided with removable sides or doors which require to be opened in various ways before the load can be deposited.

The objects of our invention are to obviate this and other difficulties by providing a dumping-car with only one closed end and means for automatically raising the rear end of said car, thus allowing its contents to escape through its open end and then bringing said car back into its normal position again.

Another object of our invention is to provide a dumping-car of this class that may be coupled together in a train and each car of the train dumped and returned to its normal position in an automatic manner and without any stoppage in the forward movement of the train.

While a further object of our invention is to provide a dumping-car and actuating apparatus in which the draft or pull is always on a level, no matter whether the car is loaded, in the act of dumping, or empty.

With these and other objects in view our invention consists in certain construction and combination of parts as will hereinafter be fully described and claimed, but it is fully understood that while we have herewith described our invention as illustrated in the accompanying drawings forming part of this specification, we do not confine ourselves to the exact construction as shown, as slight changes may be made in the construction and combination of parts without departing from the spirit of the invention.

In the drawings in which like reference characters indicate corresponding parts in all the views:—Figure 1, is a side elevation of a train of our improved cars and dumping apparatus, showing one car on the main track before dumping, one car in the act of

dumping and the other car returning to its normal position upon the main track after being dumped. Fig. 2, is a top plan view of the same, illustrating the out bearing dump wheels, the coupling construction and the general arrangement of the parts.

In the drawing, 1, indicates a main track which may be level and supported on a trestle as herewith shown, or said main track 1, may be inclined at any suitable angle. Parallel to said main track 1, and outside of same are secured the inclined dumping rails 2, which are here illustrated as being joined at their upper ends to allow the cars to ascend on one side and descend on the other side; but said inclined rail 2, may simply be inclined toward one direction and be provided with a suitable stop at the upper end to prevent the cars from going over the top, when it is desired to have the cars after dumping return or back down to the main track 1, which they will do in an automatic manner. Said inclined rails may be further supported by the uprights 3.

The dumping-cars consist of the car body 4, of any suitable design, but open at the forward end, and mounted upon any suitable design of four wheeled truck, with the exception that the rear axle 5, of said truck is extended beyond the traction wheels 6, and has mounted thereon the dump wheels 7, which track with the inclined rails 2, and as the car is moved forward they will engage therewith, and as they travel upward upon the same they will tend to raise the rear end of the car and traction wheels 6, into the position of dumping, while the front wheels 8, continue to remain and move forward upon the main track 1. In this manner it will be seen that if the forward pull upon the car is released when the rear part has reached its highest point upon the inclined rail, the weight of the rear portion of said car will by gravity return said car to the main track, or if said car is pulled beyond the apex of the inclined tracks it will descend upon the opposite side to the main track. The coupling of said cars is effected by the draw-bar 9, which is constructed with the forked end 10, which embraces the body 4, of said cars and has its ends 11, pivoted to the frame work of said cars near the bottom and midway the ends thereof, and its forward end secured under a central point 12, thereof, and it will there-

fore be seen that the draft or pull of said cars will always be on a line without regard to the position of the cars, which is a very important feature for cars of this class.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:—

- In an apparatus of the class described, comprising parallel main traction rails, dump rails parallel to said traction rails and inclined upward therefrom, of dump-cars formed with an open forward end, trucks traveling upon said traction rails and supporting said cars and provided with front and rear axles and traction wheels mounted thereon, extended ends formed upon said rear axle, auxiliary wheels secured upon said extended ends and adapted to engage and travel upon said inclined dump rails, a draw-bar formed with a forked rear end, the ends of said fork pivoted to the sides of said car and the forward end of said draw-bar detachably secured to the under side of the body of the car preceding.
2. A dumping-car having an open end, a rear axle projecting beyond the traction wheels and provided at each end with wheels to engage an outer track, a draw-bar connected to the sides of the body of said car

and adapted to allow said car body to pass the sides thereof.

3. The combination, with the main traction rails, of outer rails inclined upward from the road bed, of a car open at one end thereof, and having its rear axle projecting and provided with wheels adapted to engage and travel upon said inclined outer rails, a draw-bar having a bifurcated rear portion embracing and pivoted to the sides of said car midway the ends thereof.

4. The combination, with the main traction rails and the upwardly inclined parallel rails, of a car having front and rear axles provided with wheels traveling on said main rails, auxiliary outer wheels mounted upon the rear axle and adapted to engage and travel upon the upwardly inclined parallel rails, and a forked draw-bar having the ends of its forked portion pivoted to said car midway its ends.

In testimony whereof we affix our signatures in presence of two witnesses.

ENOS L. STOLTZFUS.
ISAAC B. MILLER.

Witnesses:

WM. J. COUTLER,
MABEL L. LEFEVRE.