J. HUGHES.

Dumping-Cars.

No. 140,779. Patented July 15, 1873.

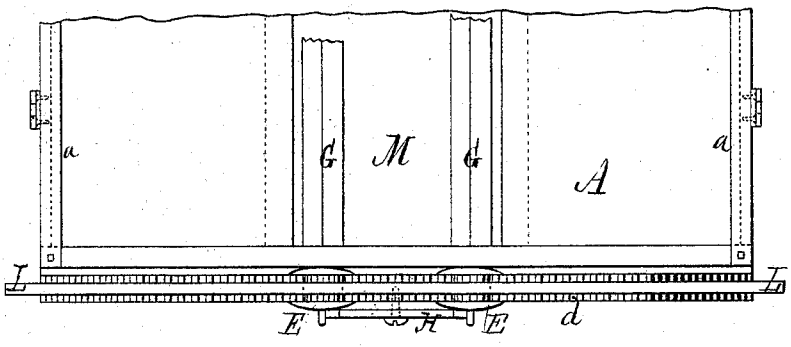

Fig. 1.

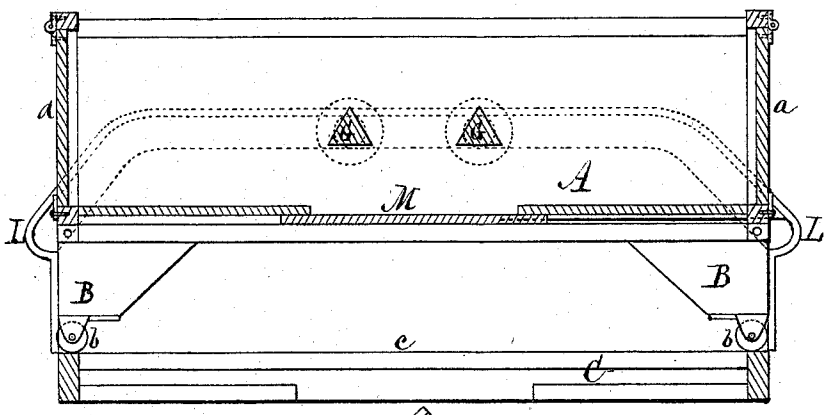

Fig. 2.

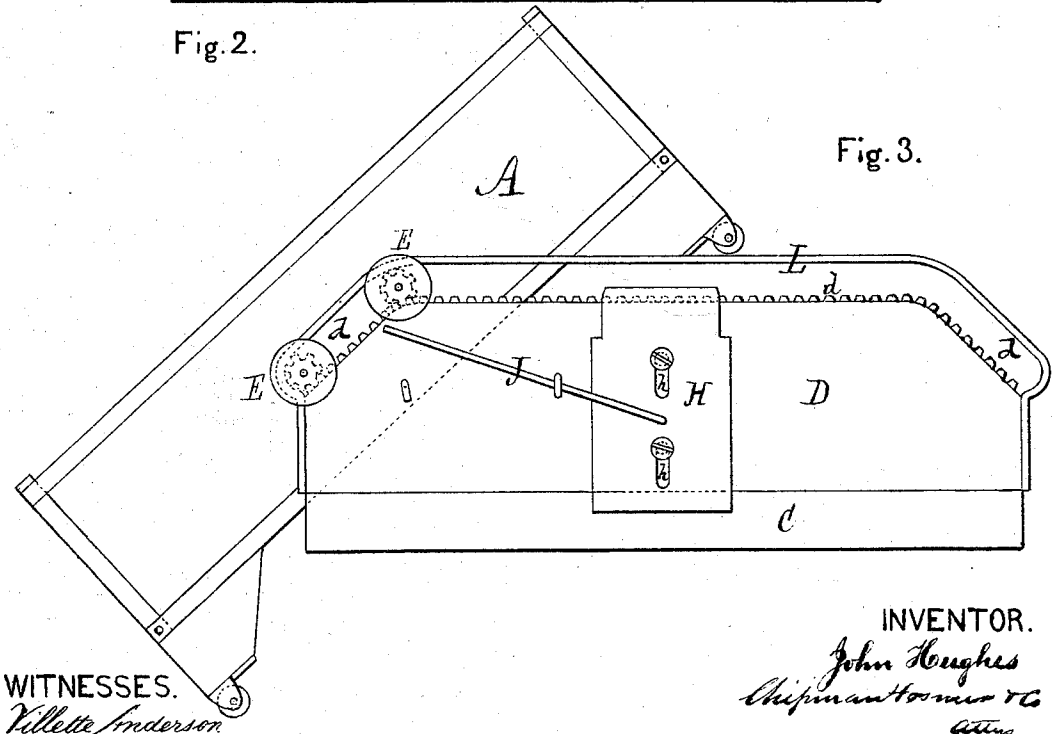

Fig. 3.

WITNESSES.

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UNITED STATES PATENT OFFICE.

JOHN HUGHES, OF NEW BERNE, NORTH CAROLINA.

IMPROVEMENT IN DUMPING-CARS.

Specification forming part of Letters Patent No. **140,779**, dated July 15, 1873; application filed March 12, 1873.

To all whom it may concern:

Be it known that I, JOHN HUGHES, of New Berne, in the county of Craven and State of North Carolina, have invented a new and valuable Improvement in Dumping-Cars; and do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a top view of my dumping arrangement for cars. Fig. 2 is a sectional view of the same. Fig. 3 is an end view of the same.

My invention relates to certain improvements in dumping-cars, such as are used in the construction of embankments for railroad tracks; and it consists in the arrangement of shields or coverings for the upper axles; also, the construction and arrangement of the brakes for engaging with the upper wheels and holding the car in position.

In the drawing, A represents a dumping-car, similar in general construction to those in ordinary use, having two opposite sides, *a a*, hinged at top and provided with buttons at bottom, so that the load may be dumped on either side. From the four corners of the under side of the car project feet B, in the lower ends of which are journaled wheels *b*, which run on rails or sills *c* in the lower part of a frame-work, C. Attached to the frame-work beside the rails *c* and extending up above them are bars D, the upper edges of which are horizontal for about three-fifths of their length, inclining downward at each end at an angle of about forty-five degrees. The upper edges of these bars D are toothed for engagement with toothed wheels E attached to the ends of axles which extend entirely through the car from end to end above the floor of the car, passing through the end pieces, so that the two wheels E at each end are at a distance apart corresponding with the length of each inclined portion of the toothed edge *d*. The two axles to which the four wheels E are attached are located near the longitudinal center of the car, and are incased in shields or coverings G to protect them from injury, which shields may be solid bars with their ends attached to the end pieces of the car and the axles running through them, or they may be hollow casings placed around said axles. These coverings are angular in shape, and the apex is directly above the longitudinal center of the axle, thereby serving not only as an ordinary shield for the axle, but also as slide-ways, aprons, or guides for the falling dirt.

When the car is in place upon the frame in a level position it is supported in the center by the wheels E and at the corners by the wheels *b*. It is held in place by a brake at each end, consisting of a bar or plate, H, attached to the end piece by set-screws passing through slots *h*, said bar or plate being adjustable vertically by means of a lever, J, pivoted on the end piece or bar D, so that the plate H may be raised until its upper end engages between the two wheels E E, and prevents their movement in either direction. A bar, L, has its ends fastened to the ends of the bar D, and passes over the wheels E and prevents their vertical displacement.

The teeth may be omitted from the edge of the bar D, and the wheels may be smooth pulleys, if desired.

In the bottom of the car is a sliding door, M, the ends of which run in grooves in the end pieces of the car. This sliding bottom is provided with suitable devices by which it may be moved back and forth to drop the load from the center, when desired, and held in place when not in use.

This car is arranged to travel transversely across the track, so as to deposit the load on either side or between the rails, as desired.

The frame-work may be attached directly to the trucks, or it may be placed upon an ordinary platform-car, so as to be removed at pleasure.

The operation of dumping the car is as follows: After the car is loaded and ready for operation the gear-wheels E E are operated by means of cranks or any other suitable devices over the horizontal toothed portion of the bar D, the forward wheel at each end of the car, then descending the incline at the end of the slot at an angle of about forty-five de-

grees, rests on the lower curved portion thereof, and the rear wheel bearing in the turn or angle of the slot L, as shown in Fig. 3, prevents the car from turning beyond this angle. The car thus assumes an inclined position for dumping, and is prevented from turning over or descending further.

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

1. In a dumping-car, the angular shields or casings G arranged around the axles, substantially as specified.

2. In a dumping-car, the combination of brakes H having slots *h* to engage with the wheels E, set-screws passing through the slots and the lever J, operating substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JNO. HUGHES.

Witnesses:
J. E. WEST,
GEO. E. TINKER.