

T. BOOTSMANN.

Dumping Car.

No. 104,254.

Patented June 14, 1870.

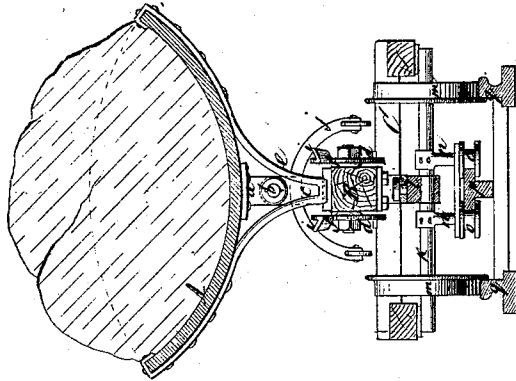
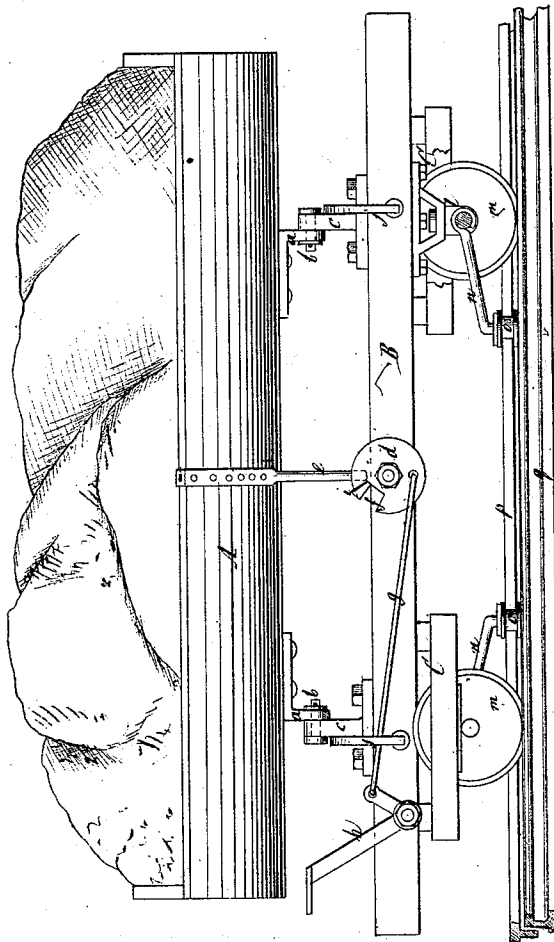


Fig. 1



Witnesses:

E. F. Kastenhuber
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per
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United States Patent Office.

THEODORE BOOTSMANN, OF TOMPKINSVILLE, NEW YORK.

Letters Patent No. 104,254, dated June 14, 1870.

IMPROVEMENT IN DUMPING-CARS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, THEODORE BOOTSMANN, of Tompkinsville, in the county of Richmond and State of New York, have invented a new and useful Improvement in Dumping-Cars; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a side view of this invention.

Figure 2 is a transverse section of the same.

Similar letters indicate corresponding parts.

This invention relates to a dumping-car, which is intended particularly for portable railroads, and which is so arranged that it can be easily loaded, that the operation of dumping is facilitated, and that it is not liable to run off the track.

The improvement consists in the arrangement of revolving stops, in combination with an arm attached to the bottom of the hinged box, each of said stops being provided with a notch or opening, in such a manner that, when the solid parts of both stops are opposite the arm, the box is retained in an upright position, and when the opening of either of the stops is brought opposite the arm, the box can be tipped over and its contents dumped, the stops being always in such a condition that they can be operated with little trouble or expenditure of power.

With the trucks of this car are combined two sets of safety-rollers, one set being applied on each truck, and said rollers act either on a safety-rail, placed between the main rails or on the main rails themselves, in such a manner that the car, when running down a steep grade, or during the operation of dumping, is prevented from running off the track or from tipping over.

In the drawing—

The letter A designates the box of my dumping-car, which is made in the form of the segment of a cylinder, as shown in the drawing, so that it can be conveniently loaded, and its contents can be readily dumped toward either side.

To the bottom of this box are secured two brackets, *a*, which are connected by pivots, *b*, to standards, *c*, rising from a beam or reach, B, that forms the connection between the two trucks, C.

To the reach B are secured the revolving stops, *d*, one to each of its sides, and these stops straddle an arm, *e*, which is fastened to the bottom of the box A, (best seen in fig. 2.)

Each of the stops is provided with an opening or notch, *f*, and if one of the stops is brought in such a position that its opening is opposite the arm *e*, the box A can be tipped over toward the side opposite to said stop, but if both stops are brought in such a position that their solid parts are opposite the arm *e*, the box A is retained in an upright position.

Each of the stops *d* connects, by a rod, *g*, with a bell-crank lever, *h*, which is pivoted to the reach B, near one of its ends, so that, by pressing on the long arm of one of said bell-crank levers, the appropriate stop can be revolved and its opening brought opposite the arm *e*.

From this description it will be readily seen that, even if the load of the box should not be uniformly balanced, the pressure of the arm *e* against either of the stops *d* cannot be of great consequence, and, in all cases, but little power will be required to turn the desired stop for the purpose of dumping the contents of the box.

With each of bell-crank levers *h* may be connected a spring, for the purpose of returning the same, together with their stops, to their locking position, and, in this case, the openings of the stops are provided with flaring lips, *i*, to allow the arm *e* to force the stops back against the action of said springs, when the box is raised up after its contents have been dumped.

The trucks C may be connected to the reach B by means of king-bolts, and, in this case, the box A is steadied by roller-arms, *j*, secured to the standards *c*, and bearing on a segmental track attached to the surface of the trucks, (not shown,) or, instead of this, the reach may be firmly connected to the trucks, and the axles *k*, may be mounted in swivel-boxes, *l*, so as to allow the wheels, *m*, to accommodate themselves to curves in the track.

From the axles *k* are suspended arms, *n*, which form the bearings for safety-rollers *o*, working in a T-shaped rail, *p*, placed between the main rails, *q*, or said safety-rollers may be so arranged that they work in the main rails themselves.

By the action of the safety-rollers, the car is prevented from running off the track in turning curves, or in going down steep grades, and it is also prevented from tipping over bodily, when the box A is allowed to drop suddenly toward one side or toward the other.

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

1. The revolving stops *d*, in combination with an arm extending from the hinged box of a dumping-car, substantially as described and for the purposes set forth.

2. The safety-rollers, hinged to the trucks of a dumping-car, and serving to retain the car, in combination with a center rail, *p*, on the track, particularly during the act of dumping, substantially as set forth.

This specification signed by me this 10th day of May, 1870.

T. BOOTSMANN.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.