

J. M. THOMPSON.

Improvement in Dumping-Cars.

No. 130,334.

Fig. 1.

Patented Aug. 6, 1872.

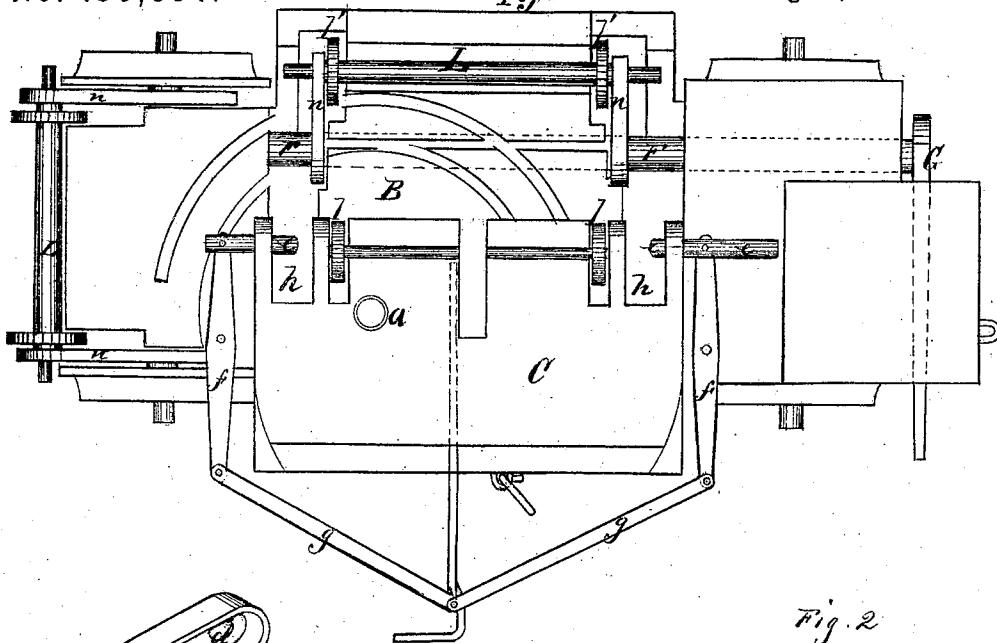


Fig. 2.

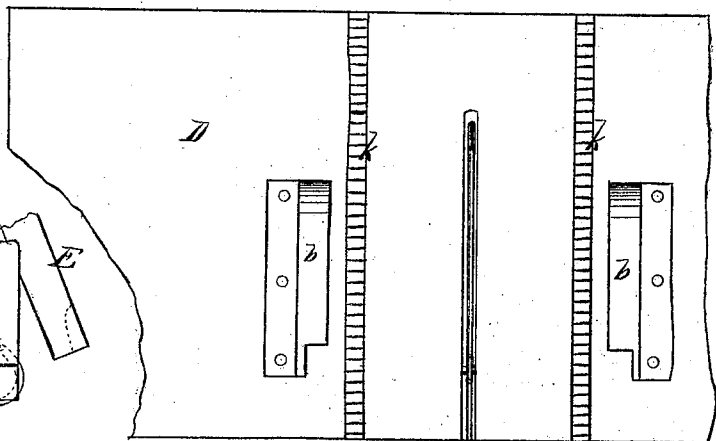


Fig. 3.

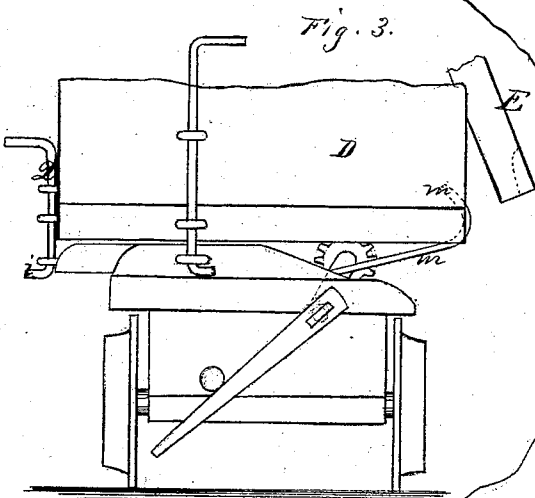
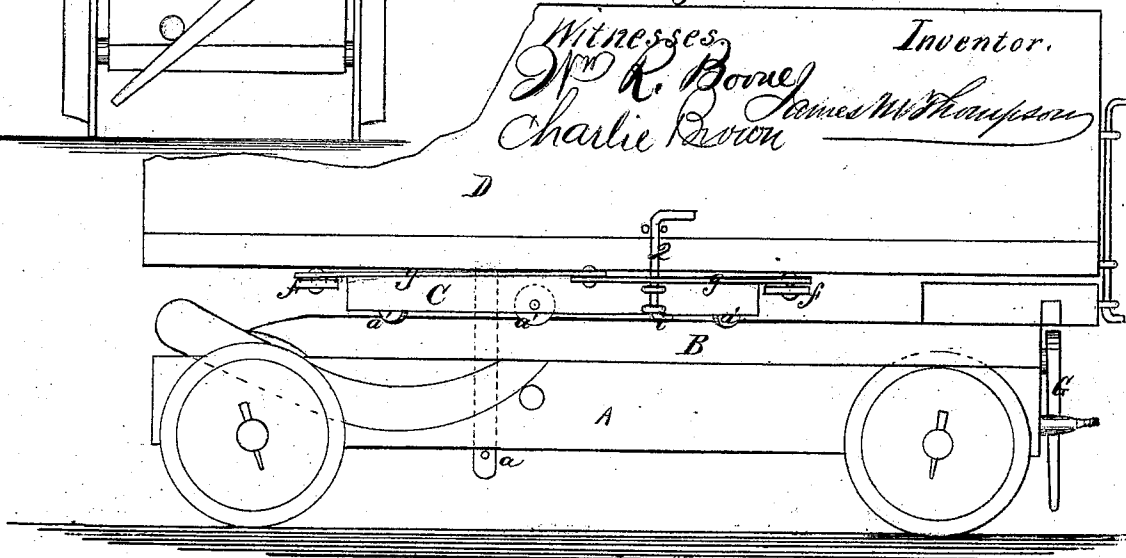


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

JAMES M. THOMPSON, OF QUINCY, CALIFORNIA.

IMPROVEMENT IN DUMPING-CARS.

Specification forming part of Letters Patent No. 130,334, dated August 6, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, JAMES M. THOMPSON, of Quincy, county of Plumas, State of California, have invented an Automatic Dumping-Car; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains, to make and use my said invention or improvements without further invention or experiment.

My invention relates to that class of cars which are intended to be used for carrying earth, stone, or other substances which may be dumped at or upon a place of deposit, and is particularly applicable for transferring earth or ore from mines to any place where they can be conveniently used, and also for grading and ballasting purposes.

In the ordinary dumping-cars, which deposit their loads by the tipping of the car-bed, the bed must be placed with its central line at a sufficient height above the trucks to permit it to turn or tip to an angle sufficient to relieve it of its load, thus rendering the car inconvenient on account of its height.

My improvements have for their object, first, to so arrange a dumping device beneath the car that the bed can be placed directly upon the trucks, and, secondly, facilitating the dumping so that it can readily be performed upon either side or at either end with but little trouble to the persons handling the cars. To do this I construct a table upon the platform on the trucks, which revolves about such a point outside of the center of the platform as will cause it to carry the bed which is placed upon it to either side or either end, according as it is desired to dump the load. Other devices for facilitating the dumping and replacing of the car upon the table, are included in my improvements.

In order to more fully illustrate and explain my invention, reference is had to the accompanying drawing forming a part of this specification, in which—

A represents a truck or body mounted upon four or more wheels. Upon this body is fixed a platform, B, which serves as a bearing-surface for whatever it is desired to carry upon the car.

In order to convert this car into one suitable for dumping its load I construct a table, C, which is provided with a vertical depending shaft, *a*. This shaft passes through the platform and body of the car at some point outside of the center of the platform, suitable for allowing it, when turned about to either side or one end of the car, to carry the bed or body D, which is secured upon it in a position to dump at either place by changing its center of gravity to a point suitable to allow it to discharge itself by tipping over the edges of the car. Upon the under side of the table C are small wheels or rollers *a' a'*, upon which the table moves as it is revolved around upon the platform carrying the loaded car, a track or tracks being provided, if desired, in which they may move. Beneath the bottom of the bed D are secured transversely two angle-irons, *b b*, forming ways or guides having one end closed. Near the closed ends of each of these ways is a hole, *d*, into which the pins *e* are caused to enter and be withdrawn by means of a double series of levers, *f* and *g*. The pins being withdrawn the closed ends of the ways enter the openings *h* at each end of one side of the table, and the pins *e* pass across the opening and through the hole *d*, thus holding the bed in its place when loaded. Racks *k k* are made transversely across the bottom of the bed D inside the ways *b b*, into which the pinions *l l*, on the table C, mesh, and when the pins *e* are withdrawn from the holes *d* the weight of the load in the bed will cause the bed to tip and descend toward the opposite side. Other pinions, *l' l'*, are arranged along one side of the platform upon a shaft, L, so as to be in a line with the pinions *l l*, which will also be caused to engage with the racks *k k* after the car has tipped so as to rest upon the edge of the platform. The shaft upon which the pinions *l' l'* revolve, is extended sufficiently at each end to form guards, as shown, which enter the ways *b b* at the open end at the same time that the pinions *l' l'* engage with the racks *k k*, thus allowing the bed to drop until its side or edge will almost, if not quite, rest upon the ground and prevent its being detached from the car in its descent. The side-board E of the bed is hinged or suspended at each upper corner, so that it will swing back and forth, but is prevented from opening when

it is loaded by a latch, *m*. This latch has a long lever-handle extending beneath the bed, which by its weight keeps the latch or hook *m* up, but as the load is descending to dump it, this weighted handle or lever is raised by passing over the edge of the table *D*, thus opening the sides automatically, so that the load will be deposited simultaneously with the descent of the bed. After the car has been unloaded the bed can be easily elevated and replaced on the car by means of the double series of levers *f g*; the pins *e* may be moved into holes *d* in the ways *b*, thus confining the bed in place. In order to support the side of the bed opposite the table *D*, the arms *n*, in which the shaft *L* bears, are secured to a shaft, *F*, which runs lengthwise of the car. This shaft can be partially revolved by means of the lever *G*, at the rear of the car, thus elevating the arms *n* from a horizontal to a vertical position, so that the pinions *V V* will bear against the bottom of the bed. At the front end of the car is arranged a duplicate set of arms, pinions, shaft, and lever, similar to that above described as being placed at the side, which serve the same purpose when the dumping is performed at this part of the car.

When it is desired to dump the load upon the side of the car opposite the side which is provided with the pinions *l l*, the table with its load is turned around until it has made a half revolution, when, on account of the peculiar position of the central or turning point, the bed will be brought into a position in which it can be dumped without the aiding device required upon the other side and end.

Upon the fixed side of the bed and directly over the middle of the revolving table, is a vertical rod, *Q*, which is secured by staples, as shown. The lower end of this rod is bent so as to form a projection, *i*, and the upper end is bent so as to form an operating lever or handle. This rod can be raised or lowered in

the staples, and serves, upon being lowered through a staple or eye-bolt on the side of the table, to secure the car in place, being partially turned in the eye-bolt to lock it.

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

1. The dumping-box or body *d*, arranged to traverse on an intermediate revolving table, *C*, as described, so that the body may be moved to either side or one end to be dumped or emptied.

2. I claim the combination and arrangement of the shafts, *L L*, carrying gears *V*, and mounted in the arms *n n* arranged on rock-shafts to raise the bed or body *D*, when emptied, so that it may be easily traversed and replaced for loading.

3. And in combination with the body *D* arranged to traverse on a revolving platform, as described, I claim the pins *e* and levers *f* and *g*, for locking the body *D* in place on the table *C*.

4. In combination with a traversing body *I* I claim the lever-latch *m*, arranged to be released automatically by the traversing of the car-body, to release the hinged side of the body to discharge the load.

5. In combination with the body arranged to traverse on an intermediate table, I claim the pivot *a* of the intermediate table, arranged some distance from the center of the car toward one side and one end, so as to carry the body toward the end of the car, when the table and body are turned, to dump at the end of the car.

In witness that the above-described invention is claimed by me, I have hereunto set my hand and seal.

JAMES M. THOMPSON. [L. S.]

Witnesses:

CHARLIE BROWN,
WM. R. BOONE.