

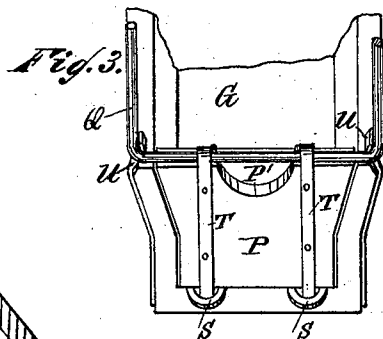
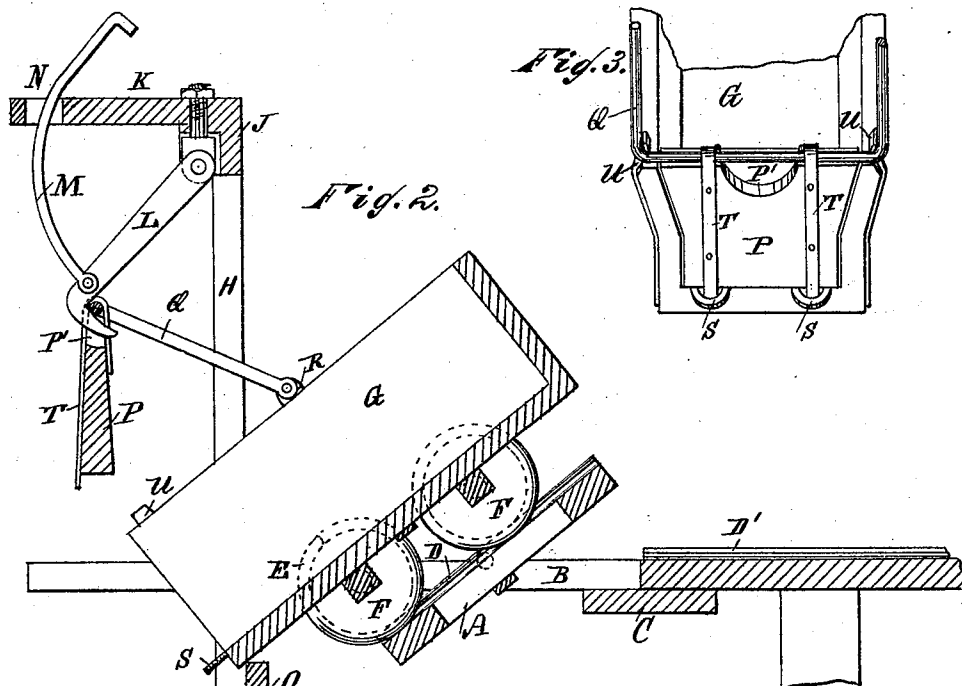
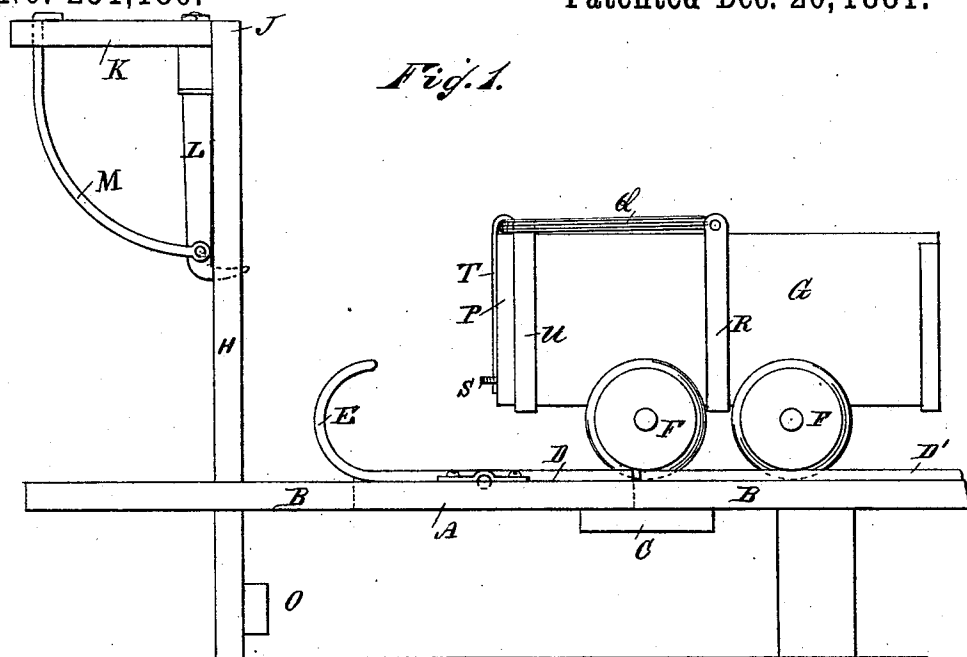
(No Model.)

J. CASEY, S. JUNIPER & J. H. MITCHELL.

DUMPING CAR.

No. 251,186.

Patented Dec. 20, 1881.



WITNESSES:

Theo. G. Horton
C. Sedgwick

INVENTOR:

J. Casey
S. Juniper
J. H. Mitchell
BY *Mum & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES CASEY, SHELDON JUNIPER, AND JOHN H. MITCHELL, OF SAVANNAH,
CHOCTAW NATION, INDIAN TERRITORY.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 251,186, dated December 20, 1881.

Application filed October 29, 1881. (No model.)

To all whom it may concern:

Be it known that we, JAMES CASEY, SHELDON JUNIPER, and JOHN H. MITCHELL, of Savannah, Choctaw Nation, Indian Territory, have invented certain useful Improvements in Dumping-Cars, of which the following is a full, clear, and exact description.

The object of our invention is to facilitate dumping or unloading the contents of a car.

The invention consists in a dumping-car provided with an end-gate pivoted to a bail pivoted to the sides of the car, which end-gate is provided with a recess in its upper end for receiving a hook suspended from a frame above a tilting platform, upon which the car is run, so that when the car is tilted this hook will hold the gate which is thus raised to permit the contents of the car to slide down the inclined floor. The end-gate is provided at its lower edge with projections fitting in loops or eyes at the outer end of the car-floor, and serving as a lock for the gate. The outer ends of the rails of the tilting platform are bent upward and curved, so that the front wheels of the car can rest against these upturned ends of the rails to prevent the car from running off the tilting platform.

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 longitudinal elevation of the dumping-car, the tilting platform, and the device for raising the end-gate, the car being represented as just passing upon the tilting platform. Fig. 2 is a longitudinal sectional elevation of the same, showing the car tilted. Fig. 3 is a perspective end view of the car.

The tilting platform A is pivoted in a frame, B, and the inner end of this platform A rests on a cross-strip, C, of the frame B. The platform A is provided with two longitudinal rails, D, having their outer ends, E, turned or bent upward semicircularly in such a manner that the forward wheels, F, of a dumping-car, G, adapted to run on the rails D, will fit exactly in these semicircularly-bent parts or ends of the rails D. The rails D correspond in position with the rails D', leading to the places where the cars G are filled, so that these cars

can be run from the rails D' on the rails D—that is, on the platform A.

Two uprights, H, are arranged on the frame B a short distance from the outer end of the platform A, and their upper ends are united by a cross-bar, J, from which an arm, K, projects outward—that is, in the direction from the platform A.

A hook, L, which reaches down a short distance below the upper edge of the car G, is pivoted to the cross-bar J and hangs from the same, and to its lower end a curved guide-rod, M, is pivoted, which extends upward through an aperture, N, in the outer end of the arm K, and has its upper end bent at right angles to prevent the rod from dropping through the aperture N. The uprights H also extend below the frame B, and below the same they are united by a cross-bar, O, upon which the outer end of the car G rests when the same is tilted.

The car G is provided with an end-gate, P, pivoted or hinged to a bail, Q, pivoted to the middle of the upper longitudinal edges of the car, or to proper lugs on the side of the car, or to the upper ends of a brace-bar, R, surrounding the car. When the gate P is closed the bail Q rests on the upper end of the car, the ends of a brace-bar, U, at the outer ends of the longitudinal sides of the car, passing upon the inside of the bail, as shown in Fig. 3, and thus serving to prevent a spreading of the end of the car when the same is loaded. The gate P has a recess, P', in the middle of its upper edge, to receive the hook L. The car is provided with one or more loops or eyes, S, projecting from the outer end of the car-floor, and adapted to receive one or more latch-bars, T, or pins projecting downward from the lower edge of the gate P. In the case shown the bars T also pass over the cross-piece of the bail Q, and thus serve to hinge the gate P to this bail.

The operation is as follows: The loaded car runs from the rails D' upon the rails D of the tilting platform A until the front wheels, F, rest against the upwardly projecting and curved part E of the rails D. The middle of the car will have passed the middle of the tilting platform A, so that the greater part of the weight of the car rests on the outer end of the

platform A, causing the same to tilt until the front end of the car rests on the transverse beam or bar O. When the front wheels of the car rest against the upwardly-projecting curved parts E of the rails D the outer end of the car has passed so far forward—that is, in the direction toward the outer end of the platform A—that the hook L passes into the recess P' and below the cross-piece of the bail Q, so that when the front end of the car descends the bail Q and the end-gate P, suspended therefrom, will be raised, the projecting lower ends of the bars T being drawn out of the eyes or loops S. The curved guide-rod M prevents any side or lateral movement of the hook L and holds the same in the proper position, so that it can pass under the cross-piece of the bail. If the platform A is brought back to its normal position again, the gate P is automatically replaced in the end of the car, the projecting lower ends of the bars T passing into the eyes or loops S, and thus locking the gate in place. When the end-gate is raised no obstructions whatever are offered to the free discharge of the contents of the car, as there are no cross rods or bars which might obstruct the large lumps. There is no loss of time by having to stop the car to unlock the gate, as this gate is unlocked automatically; and, likewise, there is no loss of the contents of the car, for the gate is only raised at that moment when the load is to be discharged. As the hinge of the bail is at the middle of the car it is not as liable to be damaged by the lumps of coal or other material in the car as if it were at the end of the car. The gate is raised so high that it cannot be struck by the discharging contents of the car, and consequently will not be damaged or broken. All of the contents of the car is discharged, as the car receives a certain shock by striking the upwardly-projecting curved ends E of the track and the cross-bar O. The car is thus tilted so suddenly and with such force that its entire contents will slide down its inclined floor.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. An improved dumping-car having its end-gate hinged to a pivoted bail and adapted to be removed by the tilting of the car, substantially as herein shown and described. 50

2. The combination, with the dumping-car G, of the end-gate P, pivoted to a bail, Q, pivoted to the sides of the car, and the projecting bars T or pins, attached to the gate P and fitting in loops, eyes, or sockets at the end of the car floor, substantially as herein shown and described, and for the purpose set forth. 55

3. The combination, with the dumping-car G, of the end-gate P, the bail Q, and the projections U at the upper edge and outer end of the car, these projections passing within the bail, substantially as herein shown and described, and for the purpose set forth. 60 65

4. In a dumping-car, the end-gate P, constructed substantially as herein shown and described, with a recess, P', in its upper edge, as and for the purpose set forth.

5. The combination, with the tilting platform A, of the hook L, suspended from a frame above the platform and reaching down to the dumping-car on the platform, substantially as herein shown and described, and for the purpose set forth. 70 75

6. The combination, with the tilting platform A and the car G, provided with the pivoted bail Q and the hinged end-gate P, of the hook L, the guide-bar M, and the arm K of the cross-bar J, substantially as herein shown and described, and for the purpose set forth. 80

7. The combination, with the tilting platform A, of the dumping-car G, provided with an end-gate, P, hinged or pivoted to a bail, Q, hinged or pivoted to the car, and of the hook L, pivoted to a frame above the platform and reaching down to the car, substantially as herein shown and described, and for the purpose set forth. 85

JAMES CASEY.
SHELDON JUNIPER.
JOHN H. MITCHELL.

Witnesses:

E. POE HARRIS,
TOM ROUSE.