

(No Model.)

C. CULVERSON.

DUMPING CAR.

No. 318,170.

Patented May 19, 1885.

Fig: 1.

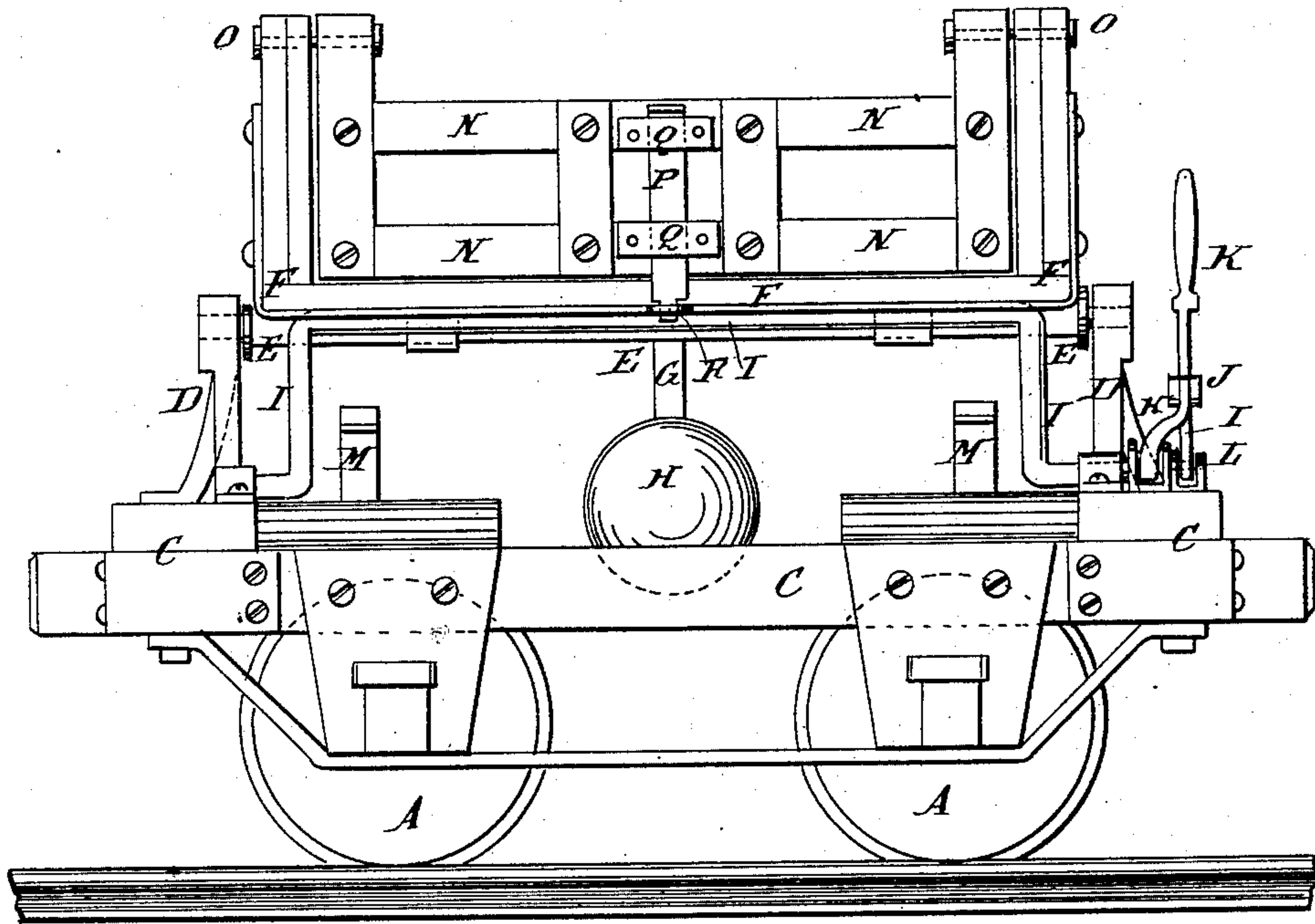
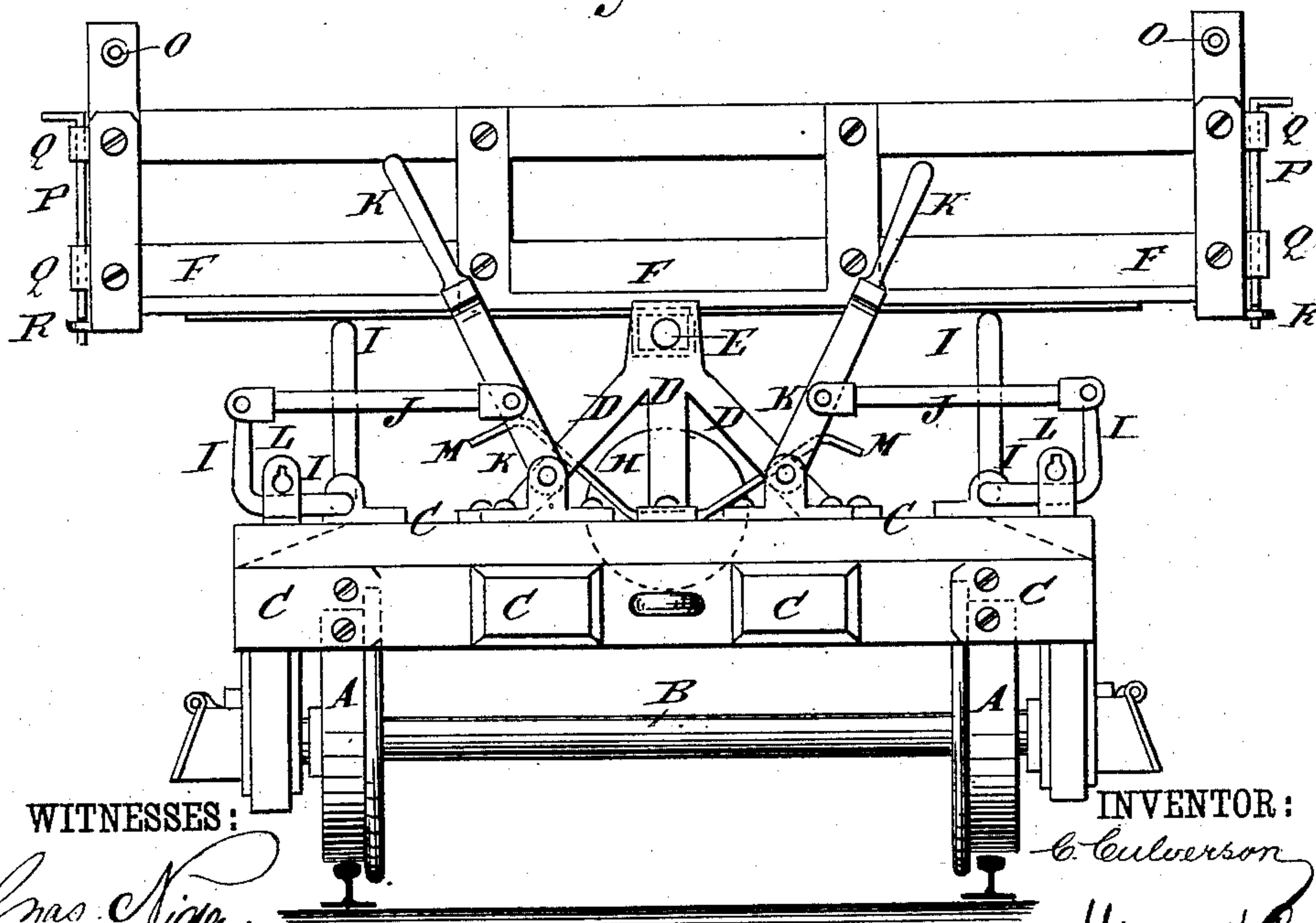


Fig: 2.



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DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 318,170, dated May 19, 1885.

Application filed April 10, 1885. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CULVERSON, of Wescosville, in the county of Lehigh and State of Pennsylvania, have invented a new and useful Improvement in Railroad Gravel-Cars, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of a car-truck to which my improvement has been applied. Fig. 2 is a front elevation of the same.

The object of this invention is to provide gravel-cars constructed in such a manner that they can be readily dumped and will return to a horizontal position automatically as soon as the load has been discharged.

The invention relates to a gravel-car constructed with brackets attached to the truck-frame and the car-body attached to an axle journaled to the said brackets and provided with a rigid arm and a weight, whereby the said car-body can be readily dumped and will be returned automatically to a horizontal position. To the truck-frame are journaled long cranks having their journals extended and bent outward and upward and connected by rods with levers pivoted to the truck-frames, whereby the said car-body can be fastened in a horizontal position and can be readily released and dumped, as will be hereinafter fully described and then claimed.

A represents the wheels, B the axles, and C the frame, of a railroad gravel-car, about the construction of which parts there is nothing new.

To the forward and rear parts of the top of the frame C, or to cross bars or planks attached to the said top, are attached the bases of brackets D in bearings, in the upper ends of which rock the journals of the axle E, rigidly attached to the car-body F at its center line.

To the axle E is rigidly secured or upon it is formed an arm, G, which projects downward vertically and has a weight, H, formed upon or rigidly attached to its lower end. The weight H should have sufficient gravity to bring the car-body F back to a horizontal position after the load has been dumped. The car-

body F is held in a horizontal position while being loaded and moved from place to place by the long cranks I, which are journaled to bearings attached to the truck-frame C.

One of the journals of each crank I projects, is bent outward at right angles, and then upward at right angles and to its end is pivoted the end of a short connecting-rod, J, the other end of which is pivoted to a lever, K, at a little distance from its lower end. The levers K are pivoted at their lower ends to bearings attached to the truck-frame C, and their upper ends project at the end of the car-body, so that they can be readily reached and operated. The lower section of the bent projecting end of each of the cranks I, when the said cranks are raised into a vertical position, passes into the space between two lugs, L, attached to the truck-frame C, and which have holes formed through them to receive pins to fasten the said cranks from turning, and thus prevent the said cranks from being shaken down by the jarring of the car and dumping the load accidentally.

Stop-arms M can be attached to the truck-frame C to receive the cranks I when turned down, and thus prevent the said cranks from being turned down too far.

N are the sides of the car-body, the end bars of which are extended upward and are hinged at their upper ends to the upper ends of the end bars of the said car-body, so that the said sides can swing outward to allow the load to slide out of the car-body F. The sides N are held in place by bolts P sliding in keepers Q, attached to the middle part of the said sides, and which engage with staples R or other keepers attached to the edges of the bottom of the car-body F. The bolts P are withdrawn from the keepers R when the load is to be dumped.

In using the improvement the cranks I are raised into an upright position against the lower side of the bottom of the car-body F, and are secured in place until the car has been loaded and drawn to the place where the load is to be dumped. The crank I upon the side at which the load is to be dumped is turned down, and the bolt P upon that side is drawn out of its keeper R, when a slight pressure upon the car-body F will tilt the said car-body and dump the load. After the load has been

dumped the car-body F is brought back to a horizontal position by the weight H, and the crank I is again turned up against the bottom of the car-body, and the car is ready to be
5 drawn back for another load.

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

1. In a gravel-car, the combination, with
10 the truck-frame C and the car-body F, of the brackets D, attached to the said truck-frame, the axle E, attached to the said car-body and journaled in the said brackets, and the rigid arm G, and weight H, substantially as herein shown and described, whereby the said car-body can
15 be readily dumped and will be returned automatically to a horizontal position, as set forth.

2. In a gravel-car, the combination, with the truck-frame C and the car-body F, of the long cranks I, having their journals bent out- 20 ward and upward, the levers K, pivoted to the truck-frames, and the rods J, connecting the said levers and bent journals, substantially as herein shown and described, whereby the said car-body can be fastened in a hori- 25 zontal position and can be readily released and dumped, as set forth.

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Witnesses:

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