

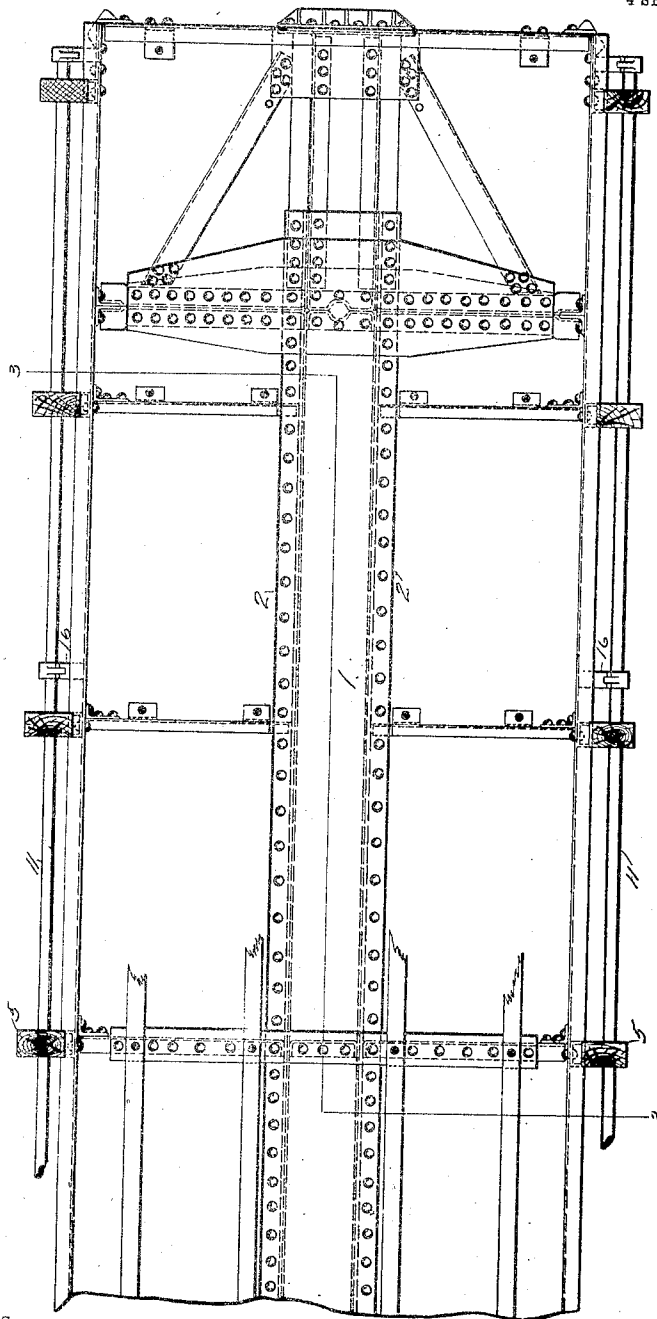
963,863.

A. CAMPBELL.
GRAVEL DUMP CAR.
APPLICATION FILED MAR. 11, 1910.

Patented July 12, 1910.

4 SHEETS—SHEET 1.

Fig. 1.



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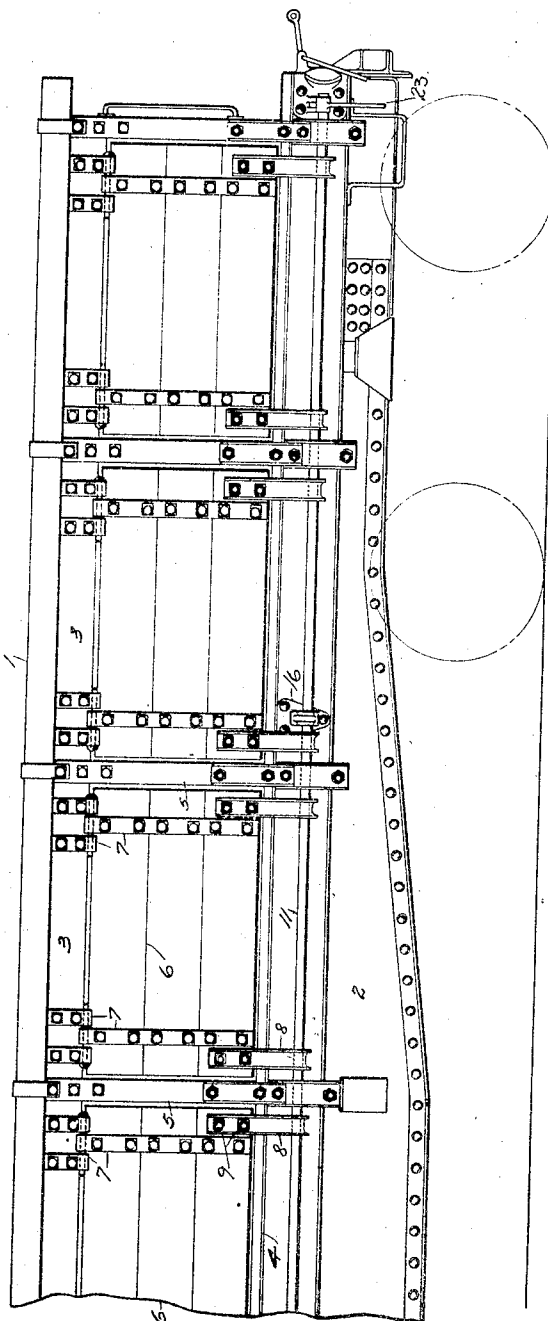
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4 SHEETS—SHEET 2.

Fig 2.



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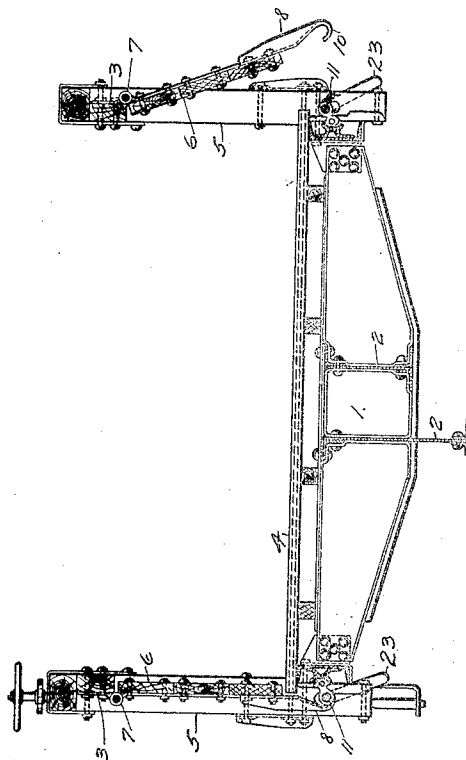
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4 SHEETS—SHEET 3.

Fig. 3.



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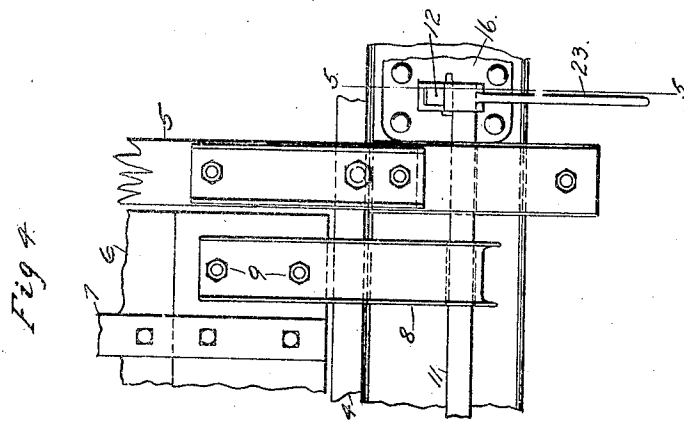
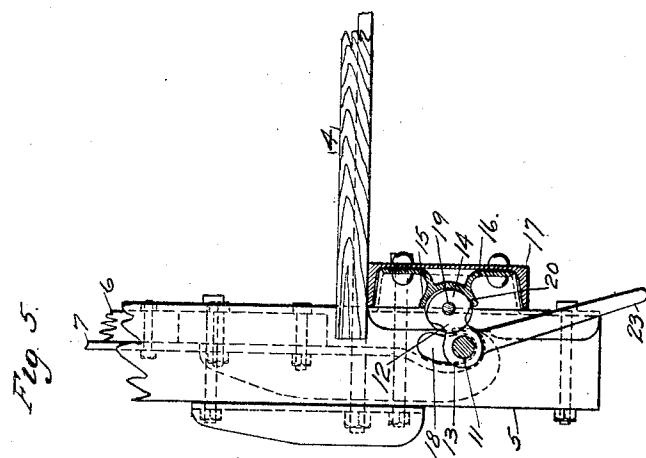
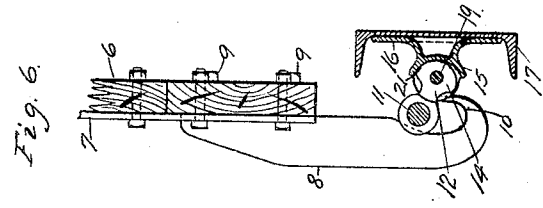
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4 SHEETS—SHEET 4.



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UNITED STATES PATENT OFFICE.

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GRAVEL DUMP-CAR.

963,863.

Specification of Letters Patent. Patented July 12, 1910.

Application filed March 11, 1910. Serial No. 548,518.

To all whom it may concern:

Be it known that I, ARGYLE CAMPBELL, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Gravel Dump-Cars, of which the following is a specification.

My invention relates to improvements in dump cars, and more particularly to improvements in dump cars of the kind having the hinged doors in the upright sides of the car, and which are specially designed for gravel cars.

The object of my invention is to provide an improved and simple, efficient and durable construction of gravel dump car, in which the doors or hinged sides may be firmly held and locked in their closed position, and also securely and properly held in their open position, while the gravel is being discharged from the car by the plow in the usual manner, and in which one and the same door fastener or catch will serve to perform both these functions.

My invention consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described and by which this object or result is accomplished.

In the accompanying drawing forming a part of this specification, Figure 1 is a plan view of a gravel dump car embodying my invention, one-half the length of the car being omitted for clearness of illustration. Fig. 2 is a side elevation. Fig. 3 is a cross section on line 3—3 of Fig. 1. Fig. 4 is an enlarged detail elevation. Fig. 5 is a detail cross section on line 5—5 of Fig. 4 and Fig. 6 is a view similar to Fig. 5 showing the parts in another position.

In the drawing, 1 represents the car body, 2 the center sills, 3 the upright sides of the car body, 4 the floor or bottom, 5 the stakes or upright frame members of the car body, 6 the hinged doors in the upright sides of the car body, 7 the hinges connecting the doors thereto, 8 the door catches secured by bolts 9 to each of the hinged doors near the lower edge thereof. Each of the catches 8 is furnished with a hook 10 adapted to engage the shaft 11 on the operating lever 12, which is furnished with a head 13 for reception of the shaft, and a wedge or cam acting head 14 for engagement with the cam socket 15 of the bracket 16, which is

secured to the side sills 17 of the car body. The side stakes 5 of the car body are furnished with curved slots 18 to receive the operating shaft 11 of the operating handle, and permit the operating shaft to swing about the fulcrum 19 of the operating lever as a center. When the operating lever is in the position shown in Fig. 5, the operating shaft 11 is locked firmly in engagement with the catch, thus holding the doors closed as the wedging or cam acting head 14 at this time wedgingly engages at the point or portion 20 with the wedging cam acting socket 15 of the bracket 16. And when the operating handle or lever 12 is turned into the position shown in Fig. 6, the wedging or cam acting head 14 engages the portion 21 of the socket 15, and thus holds the operating lever securely in this position so that the shaft 11 cannot engage the hook of the door catch or fastener.

Each of the upright sides of the car is provided with a series of hinged doors 6, located between the upright stakes, so that practically the whole side of the car may be opened out for the discharge of the gravel as the discharging plow moves from one end of the car to the other. A common operating shaft 11 is employed for all the doors on one side of the car, and each door is preferably furnished with two door catches or fasteners 8, one near each end edge of the door. By reason of the wedging or cam construction or shape of the head 14 and its cooperating cam socket 15, the operating shaft is located and securely held in either its lowermost position for holding the doors closed or in its uppermost position when the doors are open or unfastened. At or near each end of the operating shaft, the lever 12, carrying the heads 13 and 14 is provided with a handle 23, by means of which the operator raises or lowers the operating shaft as required. The intermediate operating levers 12 are not provided with a handle 23.

I claim:—

1. In a dump or gravel car, the combination with a car body having upright sides furnished with a series of door openings, of doors hinged at the upper edges for closing said openings, door catches secured thereto, and having hooks, a movable door locking shaft, and a lever for raising and lowering said shaft having a cam or wedge acting head and a cam socket on the car body for

engagement with said head, substantially as specified.

2. In a dump car, the combination with a car body having side stakes furnished with slots, doors hinged at their upper edges and closing openings in the upright sides of the car body, door catches secured to the doors, a common locking shaft extending through said slots in the car stakes and adapted to engage the door catches, operating levers for raising and lowering said shaft provided with wedge acting heads and cooperating wedge acting sockets engaging said heads to hold said levers in either their raised or lowered positions, substantially as specified.
3. In a dump car, the combination with a car body having side stakes furnished with slots, doors hinged at their upper edges and closing openings in the upright sides of the car body, door catches secured to the doors, a common locking shaft extending through said slots in the car stakes and adapted to engage the door catches, operating levers for raising and lowering said shaft provided with wedge acting heads and cooperating wedge acting sockets engaging said heads to hold said levers in either their raised or lowered positions, said levers at the ends of the car being furnished with handles, substantially as specified.
4. In a dump car, the combination with

the car body, of hinged doors furnished with catches, a locking shaft adapted to engage said catches, a lever for raising and lowering said shaft having a wedge acting head, and a cooperating wedge acting socket, substantially as specified.

5. In a dump car, the combination with the car body, of hinged doors furnished with catches, a locking shaft adapted to engage said catches, a lever for raising and lowering said shaft having a wedge acting head, and a cooperating wedge acting socket, said head and socket being adapted to lock and hold said lever in both its raised and lowered positions, substantially as specified.

6. In a dump car, the combination with the car body, of hinged doors furnished with catches, a locking shaft adapted to engage said catches, a lever for raising and lowering said shaft having a wedge acting head, and a cooperating wedge acting socket, said head and socket being adapted to lock and hold said lever in both its raised and lowered positions, said car body having side stakes furnished with slots through which said shaft passes, substantially as specified.

ARGYLE CAMPBELL.

Witnesses:

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