

No. 788,096.

PATENTED APR. 25, 1905.

A. W. DAHMER.
DUMPING CAR.

APPLICATION FILED JAN. 21, 1905.

FIG. 1.

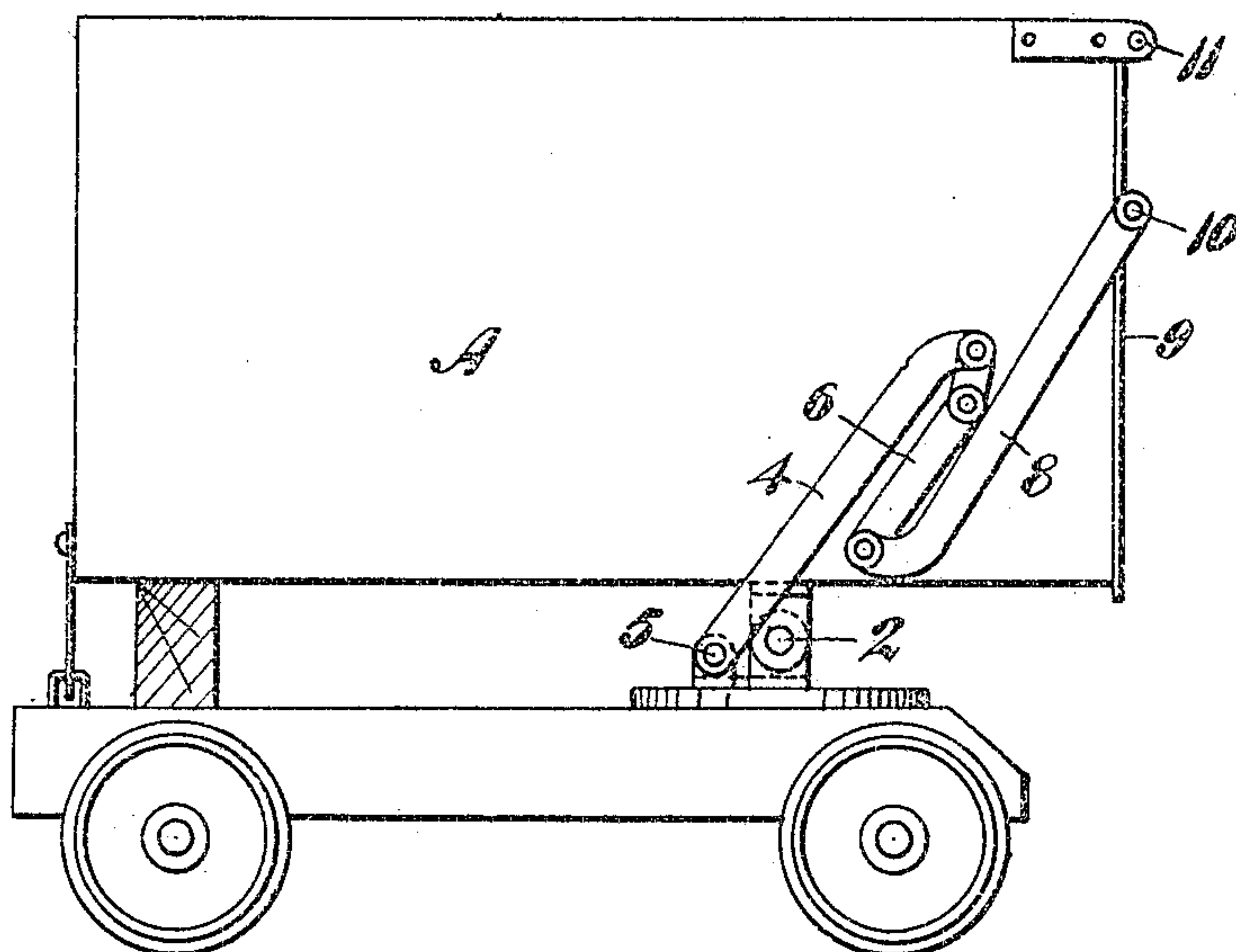


FIG. 2.

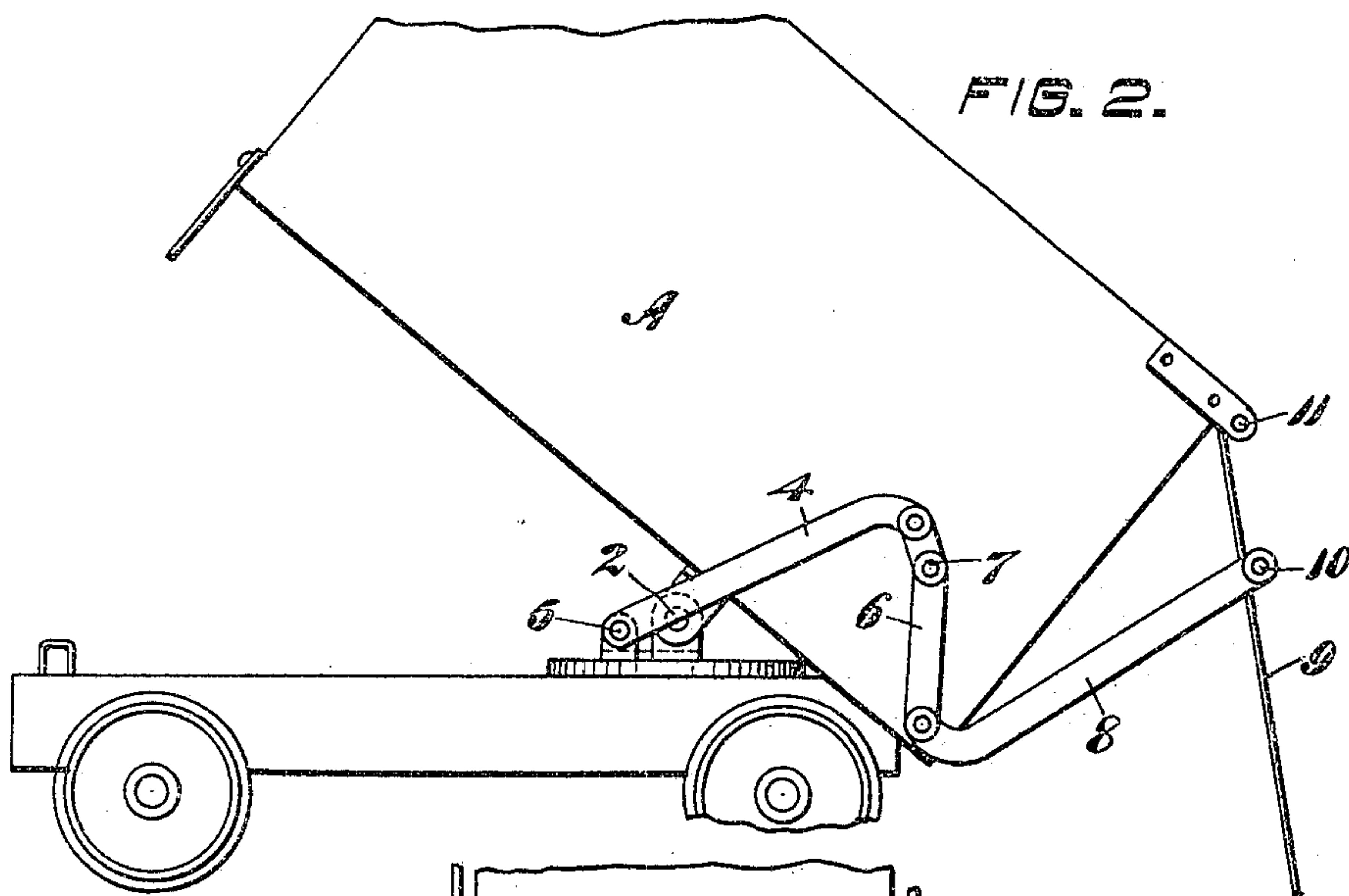
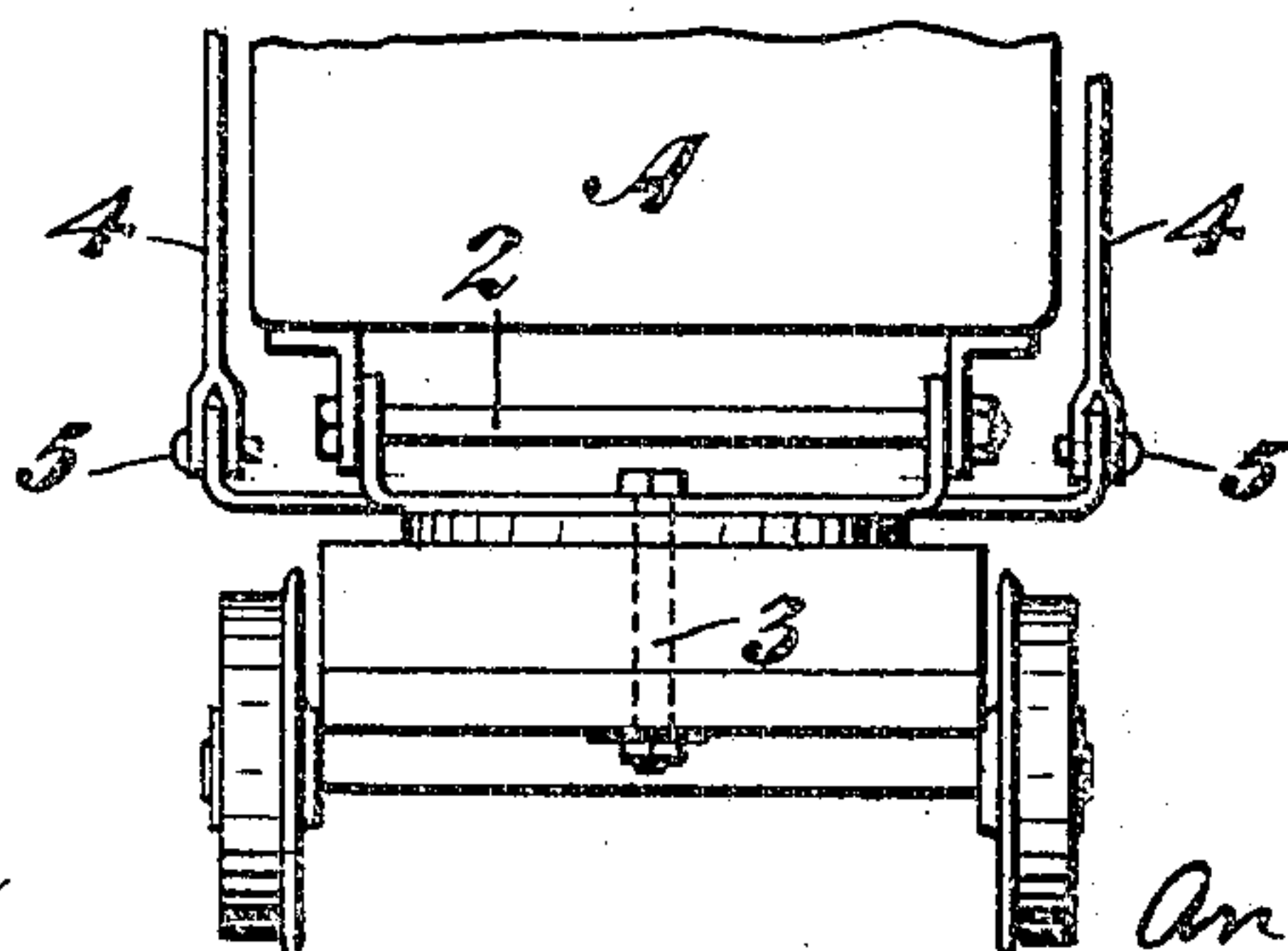


FIG. 3.



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ANDREW W. DAHMER, OF SONORA, CALIFORNIA.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 788,096, dated April 25, 1905.

Application filed January 21, 1905. Serial No. 242,047.

To all whom it may concern:

Be it known that I, ANDREW W. DAHMER, a citizen of the United States, residing at Sonora, in the county of Tuolumne and State of California, have invented new and useful Improvements in Dumping-Cars, of which the following is a specification.

My invention relates to an improvement in that class of car which is pivoted and tiltable and is provided with a swinging door through which the contents may be discharged.

It consists in a means for mechanically opening and closing the door in unison with the tilting of the car and comprises combinations of parts and details of mechanism which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of my car in loading position. Fig. 2 is a side elevation of same in unloading position. Fig. 3 is a partial end elevation of same.

In the ordinary dumping-car having a hinged swinging gate capable of being opened when unlatched the weight of the discharge load acts in unison with the tilting of the car to swing the gate open. When used upon ores or sticky material, there is always a proportion of this material which does not freely leave the car; but the gate after being swung wide open by the discharge of the larger portion of the mass will swing back into a partially-closed position and will thus obstruct and retard the discharge of this finer portion of the load.

It is the object of my invention to provide mechanical means for fully opening and holding the gate open when the car is tilted to the discharging position and to correspondingly close and hold the gate when the car is returned to its normal position.

As shown in the drawings, A represents the body of a car of any suitable form and size. Such cars are usually fulcrumed, as shown at 2, and this fulcrum-support is again pivoted, as shown at 3, so as to turn horizon-

tally about this vertical pivot and discharge the load at any desired point with relation to the position of the car-truck.

4 is an arm, preferably having forked ends. This arm is pivoted to the upturned end of the horizontal turnable portion 3, as shown at 5. The other end is similarly connected with a short lever 6, which is fulcrumed to the side of the car, as at 7. The opposite and longer arm of the lever 6 is similarly pivoted to a link or arm 8, the outer end of which is pivoted to the door 9, as shown at 10. The door itself is fulcrumed or pivoted to the upper part of the rear end of the car, as shown at 11.

The lever 6 and the links 4 and 8 are preferably duplicated, there being a set upon each side and connected with each side of the door of the car, so as to relieve the latter from twisting strains. These levers and links are curved, as shown, so that when the car is in its normal position to receive a load the link 4 pressing against the upper part of the lever 6 turns the latter about its fulcrum-pin and the lower and longer arm of the lever 6 in turn pulling upon the link 8 acts to close the door. The curvature of these levers and links is such that when the door is closed the intermediate lever 6 will stand in such relation to the links 4 and 8 that it forms a lock to prevent the door from being forced open by the load. As soon as the rear end of the car is released and it is allowed to tilt the link 4 acts directly upon the short arm of the lever 6 by reason of the change of distance between the stationary fulcrum of the link 4 and that of the lever 6, and this acts to pull the lever 6 and through the other arm of the lever acting upon the link 8 to positively push the door open to its full width, where it is held until the car is fully discharged. The return of the car to its normally horizontal position acts in the opposite manner, the link 4 pushing the upper end of the lever 6 and the lower end of this lever acting through the link 8 closes the door with a like positive movement. When the door is thus closed,

the position of the lever and the links is such that they act as a lock to hold the door until the car is again tilted.

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

1. An opening, closing and locking device for the door of dumping-cars, said device comprising a lever fulcrumed to the side of the car so as to provide a long and a short arm, a link connecting the long arm of the lever with the hinged door, and a second link connecting the short arm of the lever with a fulcrum fixed with relation to the car.

2. An opening, closing and locking device for the doors of dumping-cars, said device consisting of a lever fulcrumed to the side of the car so as to provide a long and short arm, a curved link having one end connected with the short arm of the fulcrumed lever, and the other with a point stationary with relation to the car, and a second curved link having one end connected with the hinged swinging door

and the other with the long arm of the fulcrumed lever.

3. The combination with a tiltable dumping-car, and the hinged swinging door thereof, of a locking device, said device consisting of a curved lever fulcrumed to the side of the car so as to provide a long and short arm, a curved link connecting the long arm of said lever with the door, a second curved link having one end connected with the short arm of the lever, and the other end with a fixed point, said lever and links acting to automatically open the door when the car is tilted, and to similarly close and lock the door when the car is returned to its normal position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ANDREW W. DAHMER.

Witnesses:

S. H. NOURSE,

HENRY P. TRICOU.