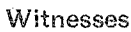


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UNITED STATES PATENT OFFICE.

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DUMP-CAR.

1,032,872.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS B. BLACKBURN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Dump-Car, of which the following is a specification.

This invention relates to dump cars, particularly to dump cars having inclined bottoms and doors at the sides thereof for permitting the cargo to be dumped, and has for its object to provide certain novel improvements in cars of this character, especially over the car disclosed in Patent No. 858,644, issued July 2, 1907.

One of the improvements contemplated by the present invention is to provide an improved means for releasing the side doors of the car, and further, to release the respective side doors one at a time whereby a partial dumping of the cargo can be effected.

To this end the invention resides essentially in a car having a plurality of doors hinged along one side thereof, tongues projecting from the free edges of the said doors, a bar slidable along the respective side of the car, and hooks secured along the outer side of the said bar, the said hooks being of different lengths and arranged to engage the tongues of the respective doors to retain same between the hooks and the bar, whereby upon the bar being slid the respective doors are liberated one at a time as the bar assumes different positions.

In the present disclosure the car is shown as provided with a plurality of doors along both sides thereof, but it is understood that the car may be so constructed as to dump on side only in which event the doors would be arranged along the respective side of the car. It is also understood that various alterations in the details of the invention may be resorted to within the scope of the appended claims without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings, wherein similar reference characters indicate similar parts, and wherein:—

Figure 1 is a side elevation of a car embodying the invention, parts broken away and the trucks of the car being removed. Fig. 2 is a section on the line 2-2 of Fig. 1. Fig. 3 is a fragmental view in perspective showing one of the door tongues engaged

with one of the hooks of the sliding bar. Fig. 4 is a perspective view of a fragmental portion of the sliding bar. Fig. 5 is a plan view of one of the sliding bars, parts broken away.

Referring specifically to the drawings, the car comprises generally, the base 4, the gable bottom 5, ends 9, partitions 6 arranged between the said ends, and the doors 7 at the sides of the car hinged at their upper corners to the respective ends 9 and partitions 6 as designated at 8. To each of the doors 7 are secured a pair of bars 10 which have the lower ends thereof offset outwardly and depending below the lower or free edges of the said doors to form tongues 23.

Along each side of the car is arranged a longitudinal slidable bar 13, the same being arranged below the free edges of the doors 7 and sliding against the base 4 of the car within the clips 24 secured to the partitions 6 and the ends 9. To each bar 13 is riveted or otherwise secured a series of hooks 21, 21^a and 21^b, the respective sets of hooks being of different lengths and being arranged to engage the tongues 23 of the respective doors 7 to retain the doors in closed position. These hooks 21, 21^a and 21^b are preferably formed from short pieces of bar metal of a width equal to the bars 13, and have the hooked ends thereof curved outward in order to readily direct the tongues into the hooks, as designated at 26.

Below the base 4 is mounted a cylinder 19 having the piston 22 therein and an air supply pipe 20 is connected to the said cylinder. The piston rod 18 which is connected to the piston extends to one end of the car and is slidably mounted in the guides 25. A lever 11 is pivoted at the said end of the car upon bearings 12 and has the elongated slots 14 and 15 in the upper and lower ends thereof respectively. The respective bar 13 is provided with a pin 17 engaging in the slot 14 of the lever 11, while the piston rod 18 is provided with a pin 16 engaging in the slot 15 of the said lever, whereby when the piston rod is slid away from the lever 11 the bar 13 is caused to move toward the said lever in which event the hooks 21, 21^a and 21^b move away from the tongues 23 to liberate the doors. Inasmuch as the said hooks are of different lengths the respective doors will be successively liberated at the various positions of the bar 13, which permits the cargo in

the various portions between the partitions and the ends of the car to be dumped separately. The air supply pipe 20 may be engaged to the train pipe (not shown) and in this manner the dumping of the car may be effected from the locomotive, as will be understood. It is also understood that the piston rod 18 may be operatably connected to the bars 13 at both sides of the door whereby the respective opposite doors of the car are liberated simultaneously.

It will be seen that with the present invention that the tongues 23 may be of any suitable length to prevent them from slipping over the respective hooks to liberate the doors, whereas the arrangement disclosed in the above mentioned patent necessitates the tongues being of comparatively short length and thereby occasionally slipping over the sliding bars to liberate the doors prematurely.

What is claimed is:

1. The combination with a car having a plurality of doors hinged along one side thereof, tongues projecting from the free edges of the doors, a bar slidable along the respective side of the car arranged to engage the tongues to retain the doors in closed position and when slid to liberate the respective doors at various positions of the said bar.

2. The combination with a car having a plurality of doors hinged along one side thereof, tongues projecting from the edges of the said doors, a bar slidable along the respective side of the car, and hooks secured along the outer side of the said bar, the said hooks being of different lengths and arranged to engage the tongues of the respective doors to retain same between the said hooks and the bar, whereby upon the bar being slid the respective doors are liberated one at a time.

3. The combination with a car having a plurality of doors hinged along one side thereof, a bar slidable along the respective side of the car arranged to retain the door in closed position and when slid to liberate the respective doors at various positions of the said bar, a cylinder carried by the car, a piston within the cylinder, a piston rod connected to the piston, an air supply pipe connected to the cylinder, and an operative connection between the piston rod and the said bar.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

THOMAS B. BLACKBURN.

Witnesses:

CAROLINE E. SMITH,
W. C. GLICK.