

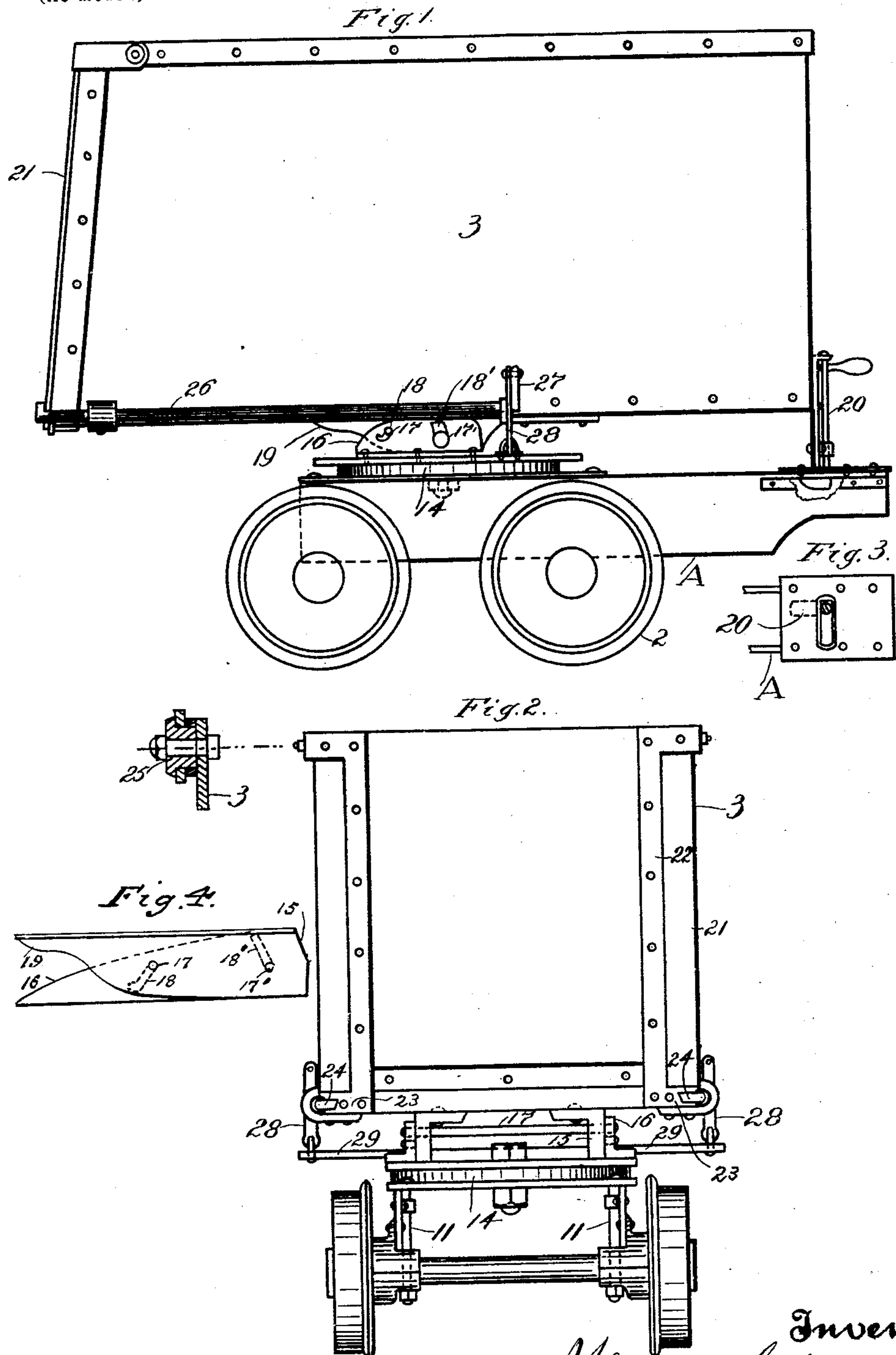
No. 713,321.

Patented Nov. 11, 1902.

W. C. MATTESON.  
ORE CAR.

(Application filed May 20, 1902.)

(No Model.)



Witnesses,

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# UNITED STATES PATENT OFFICE.

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## ORE-CAR.

SPECIFICATION forming part of Letters Patent No. 713,321, dated November 11, 1902.

Application filed May 20, 1902. Serial No. 108,201. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER CARLOS MATTESON, a citizen of the United States, residing at Stockton, county of San Joaquin, State of California, have invented an Improvement in Ore-Cars; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in cars for transporting ore and the like. Its object is to provide a car of simple and economical construction that is easily dumped and righted and in which the opening and closing of the door is effected automatically.

It consists of a novel form of dust-proof bearing and means for securing the wheels to the axle and to the frame, a centrally-disposed rocking hinge-support for the car-body on which the latter is tilted to dump its load, a door pivotally hung at the top on one end of the car, said door-pivots each comprising a sleeve embraced by the door-hinge and secured independently of the hinge to the outside of the car-body, and latch means by which the door is released or engaged automatically, according as the car is oscillated.

It comprises details which will be more fully set forth hereinafter, having reference to the accompanying drawings, in which—

Figure 1 is a side elevation of my car. Fig. 2 is a front end view. Fig. 3 is a plan of the rear end of the platform, showing means of engaging the latch. Fig. 4 is a side elevation of a rocker-hinge.

A represents the main horizontal frame, mounted upon the wheels 2 and supporting the car-body 3. The car-body 3 is supported upon a turn-table 14 on the truck-frame in the following manner: Centrally beneath the car and fixed thereto are the rocking hinges 15, which rest upon the bed-plate of the turn-table. These rockers are pivoted to the guide-plates 16, fixed on the table, by means of bolts 17 17', disposed, respectively, at front and rear of the rockers and movable in respective slots 18 18' in the plates. The position of these rockers is such that the car will tilt the moment the latch 20 is released without having to lift in order to start the load, as the latter is a trifle beyond dead-center. The rocker-surfaces partake of the

character of a rather flat irregular curve, so that the dumping will be gradual, and at the same time the car can be righted with very little effort on the part of the operator. The length and pitch of the slots 18 18' are according to the different arc lengths described by the respective bolts 17 17'. When a car dumps, the bolt 17 rests at the bottom of its slots 18, and the other bolt 17' rests against the top of its longer slots 18', while the projections 19 of the rockers are supported on the turn-table. The car-body is held in horizontal position by means of a latch 20 engaging the truck-frame. The door 21 is hinged at the top to the front end of the car. The hinge-straps 22 are riveted to the sides of the door and extend downward to form the chafing-plates 23 for the automatic-locking members 24.

It is usual in ore-cars to have a single hinge-strap extending across the top of the door. I prefer the present construction, for the reason that it gives strength to the door in the direction most needed and enables the hinge and chafing-plate to be made in one piece. The pivots for the hinges consist of flanged sleeves 25, passed through the hinge-eyes and bolted fast to the sides of the car. This form of pivot is very solid, compact, and simple, and the sleeve-bolt can be tightened and kept so, while the door will always swing free. The flange being outside the hinge serves to keep the latter in place and offers a good seat for the nut. The door is held closed when the car is in righted position by means of the catches 24. The latter each consist of a short arm upon a rock-shaft 26, secured on either side of the car and at the bottom edge of the car-body, where there is little or no chance of their becoming damaged, as by the car going over the dump or from other rough usage. It is also advantageous for obvious reasons to engage the door at the extreme lower edge. The inner ends of the rock-shafts are provided with arms 27 at approximately right angles to the latch-arms 24, and the ends of the arms 27 are pivotally connected by links 28 with projections 29, fixed to and turnable with the table 14.

In operation the loaded car is moved to a point of discharge. In case it is desired to



dump at the side of the track the car-body is turned on the turn-table into suitable position. By releasing the latch 20 the body is easily tilted on its hinges, which causes the shafts 26 to rock to turn the catches 24 and release the door, which occurs when the car has been lifted to an angle of ten or twelve degrees, whereupon the whole load is dumped at once. As the car is returned into righted position the door first closes by reason of its inclination from its pivots and is then engaged and locked again by the latch members 24.

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

1. An ore-car consisting in the combination of a truck-frame, a car-body, rocker-hinges secured to said body and upon which the latter is tiltable, a door hinged at one end of said car-body, sleeved pivots upon which the hinges of said door are turnable, and locking mechanism including a rock-shaft by which said door is automatically locked or released according as the car is tilted.

2. The combination in an ore-car of a truck-frame, a car-body, rockers on the body of said car, lateral guides for said rockers, and pivot-bolts passing through said rockers and guides and movable in slots in the latter.

3. The combination in an ore-car of a wheeled frame, a car-body, rockers disposed centrally beneath said car-body, upon which the latter is supported and tiltable, and fixed slotted guides to which said rockers are pivotally connected.

4. The combination in an ore-car, of a truck-frame, a car-body pivotally supported thereon, a hinged door, a rotatable rock-shaft upon

said car-body, latch means on one end of said shaft engaging the door, and connections between the other end of the shaft and a fixed point upon the truck-frame whereby the shaft is rotated to disengage the door automatically as the car is dumped.

5. In an ore-car the combination with the car-body, of a door hinged thereto, the pivots of the hinges comprising each a flanged sleeve embraced by the door-hinge and secured independently of the hinge to the side of the car-body.

6. The combination in an ore-car of a truck-frame, a car-body pivotally supported thereon, a hinged door, a rock-shaft having an arm at one end adapted to engage the door to lock it when the car-body is in horizontal position, an arm on the opposite end of the shaft and connections between said latter arm and the truck-frame whereby the shaft is rocked to unlatch the door as the car is dumped.

7. The combination in an ore-car, of a truck-frame, a car-body pivotally supported thereon, a door having hinges at the top and pivoted to the rear of said car-body, rolling catches adapted to engage the lower portion of said door, said door-hinges consisting of metal straps extending from top to bottom of the door and each having a backwardly-projecting hinge lug or extension embracing a pivot on the car-body, and the lower ends of said straps serving as chafing-plates for said catches.

In witness whereof I have hereunto set my hand.

WALTER CARLOS MATTESON.

Witnesses:

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W. S. FOWLER.