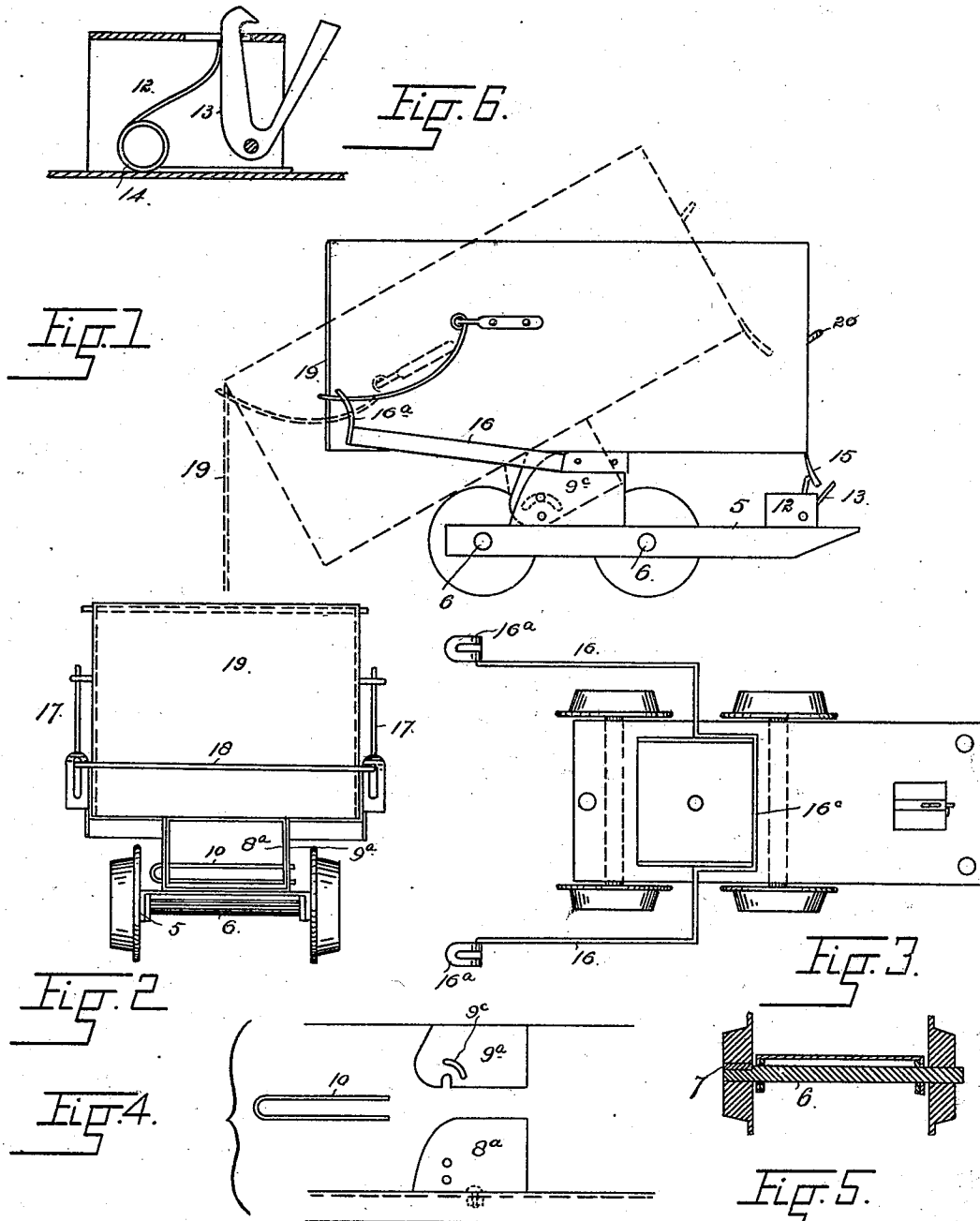


(No Model.)

C. G. SODERSTROM.
ORE CAR.

No. 515,306.

Patented Feb. 20, 1894.



WITNESSES:

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ORE-CAR.

SPECIFICATION forming part of Letters Patent No. 515,306, dated February 20, 1894.

Application filed May 12, 1893. Serial No. 473,963. (No model.)

To all whom it may concern:

Be it known that I, CARL G. SODERSTROM, a subject of the King of Sweden and Norway, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Ore-Cars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in ore cars and consists of the features herein after described and claimed all of which will be fully understood by reference to the accompanying drawings in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a side elevation of the car, the dumping position being indicated in dotted lines. Fig. 2 is a front end view of the same. Fig. 3 is a top or plan view with the car body removed. Fig. 4 illustrates in detail, the means for attaching the car body to the platform. Fig. 5 is a section taken through the platform, the axle, and one pair of wheels. Fig. 6 shows the locking device attached to the rear extremity of the platform.

Similar reference characters indicating corresponding parts or elements of the mechanism in these views, let the numeral 5 designate the platform of the car which is formed integral from a single piece of sheet metal. In the depending flanges of this platform are journaled the axles 6. The wheels on one side of the car are made fast to the axle extremities by means of a spline 7 shown in Fig. 5, while the wheels on the opposite side are movably attached to the axles to allow the wheels to rotate independently of each other where the track is curved. To the top of the platform is pivoted a plate 8 provided with vertical flanges 8^a. To the bottom of the car is attached a counterpart plate 9 having depending vertical flanges 9^a which pass between the flanges of the lower plate. The outer flanges 8^a are apertured to receive the two arms of double pin 10, which arms also pass through apertures formed in the counterpart

flanges 9^a, one of which is a curved slot 9^c of sufficient length to allow the car the proper movement in dumping. Between the vertical sides of a double angle plate 12, made fast to the rear extremity of the car platform, is fulcrumed the vertical bell crank locking device 13, normally held in the locking position by a spring 14 located between the two sides of the vertical angle plate 12. The upper extremity of the forward arm of the locking device is hooked to engage a depending apertured flange 15 attached to the car body. Made fast to the flanges 8^a of the pivoted plate 8 are the angle arms 16 which extend outward and forward, the forward portion being inclined slightly upward on either side of the car body and terminating in slotted projections 16^a. As shown in the drawings, the arms 16 are formed integral with each other, or from a single metallic band, being connected in the rear by a transverse piece 16^b.

To the sides of the car are attached eye plates 17^a for the reception of the hooked extremities of the device for automatically closing and locking the door, which device consists of the side arms 17^a and the transverse connecting bar 18. The side arms pass through the slots formed in the projections 16^a, while the bar 18 extends across in front of the door 19 which it locks in the closed position when the car body is horizontal or parallel with the platform. The car door 19 is pivoted at its top and swings outwardly as is usual in this class of cars. By pressing forward on the outer arm of the locking device 13, the car body is released. The body of the car is so nearly balanced on its axis that after releasing it from the lever 13, a lifting force of a few pounds applied to the handle attached to its rear extremity is sufficient to cause it to assume the dumping position shown in dotted lines in Fig. 1. As the front end of the car body moves downward, the locking device 17 18 passes upward with reference to the downwardly moving car end and releases the door allowing it to swing outwardly to the open position. When the car body again assumes the upright, horizontal position, the device for locking the door returns to the position shown in full lines in Fig. 1. It will thus be seen that the device 17, 18 is a positive lock for the door and can-

not possibly fail in the performance of its function.

Having thus described my invention, what I claim is—

5 1. In an ore car, the combination with the stationary platform and the car body, of a pivoted plate attached to the platform and having upright apertured flanges, a counterpart plate made fast to the car body and having
10 depending flanges, and a double armed pin passing through apertures formed in these counterpart flanges, the flanges of one plate being slotted to receive an arm of the pin and allow the car body the necessary movement,
15 substantially as described.

2. The combination with the stationary platform of the vertical bell crank locking device pivoted between the upright projections of a double angle plate made fast to said platform
20 and adapted to engage a depending apertured projection attached to the rear end of the car body, substantially as described.

3. In an ore car, the combination with the pivoted car body and the stationary platform,
25 of an oscillating locking device attached to the car body and having a transverse bar located in front of the door, and a guide arm attached to the stationary platform and en-

gaging the locking device, substantially as described. 30

4. In an ore car, the combination with the stationary platform and the pivoted car body, of the oscillating locking device attached to the car body and having a bar located in front of the door and a pair of guide arms attached
35 to the stationary platform and having slotted extremities through which the side arms of the locking device pass, substantially as described.

5. In an ore car, the combination with the stationary platform and the pivoted car body, of the locking device for the door, said device consisting of the side arms movably attached to the car body and connected by a transverse arm located in front of the door, and a pair
45 of guide arms attached to the stationary platform and having slotted extremities through which the side arms of the locking device pass, substantially as described.

In testimony whereof I affix my signature in
50 the presence of two witnesses.

CARL G. SODERSTROM.

Witnesses:

BRINTON GREGORY,
CHAS. E. DAWSON.