

No. 753,857.

PATENTED MAR. 8, 1904.

A. T. CORRELL.
LOCKING LATCH FOR DOORS OF COAL CARS.
APPLICATION FILED AUG. 4, 1903.

NO MODEL.

Fig. 2.

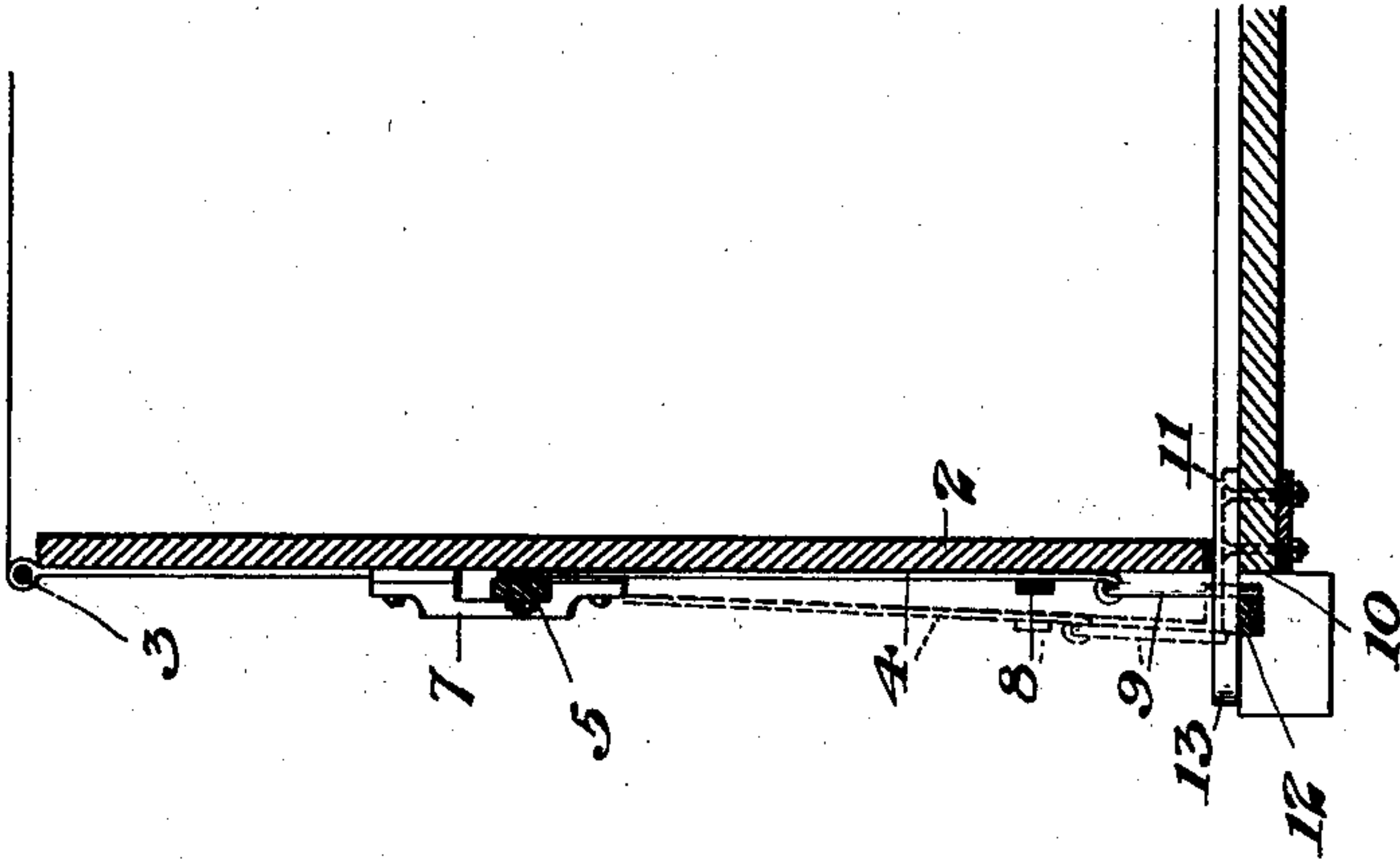
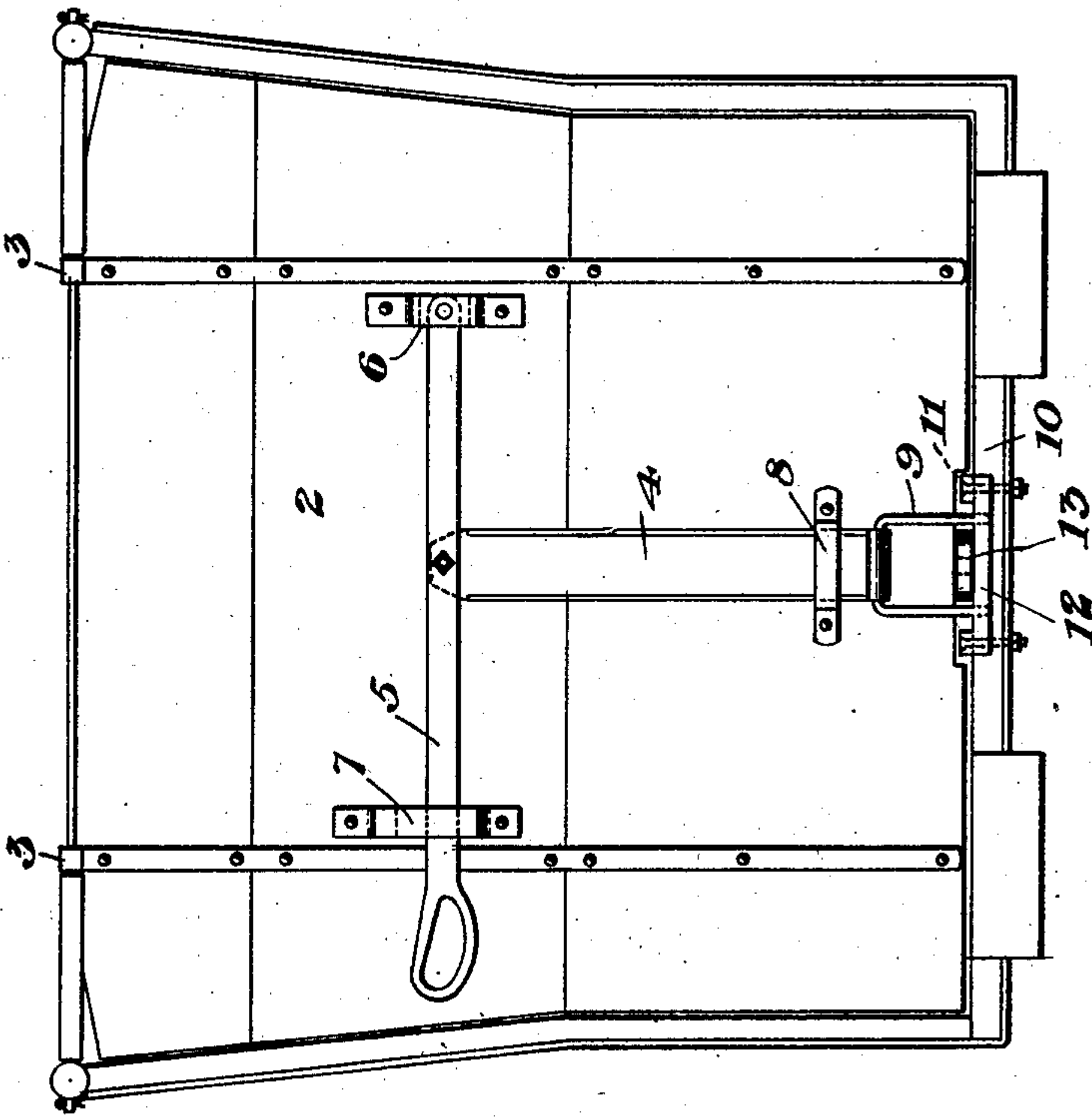


Fig. 1.



WITNESSES

A. M. Steen
W. F. Stewart.

INVENTOR

Albert T. Correll
by James K. Bakewell
his attorney

UNITED STATES PATENT OFFICE.

ALBERT T. CORRELL, OF BRADENVILLE, PENNSYLVANIA.

LOCKING-LATCH FOR DOORS OF COAL-CARS.

SPECIFICATION forming part of Letters Patent No. 753,857, dated March 8, 1904.

Application filed August 4, 1903. Serial No. 168,141. (No model.)

To all whom it may concern:

Be it known that I, ALBERT T. CORRELL, of Bradenville, in the county of Westmoreland and State of Pennsylvania, have invented a certain new and useful Improvement in Locking-Latches for the Doors of Coal-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an end view of a coal-car provided with my improved locking-latch; and Fig. 2 is a vertical sectional view of the end of the coal-car showing my improvement.

Like symbols of reference indicate like parts wherever they occur.

My invention relates to an improvement in locking-latches for swinging doors, and it is especially applicable for use on the swinging doors of coal-cars which are arranged to tip to empty their loads.

It consists in a vertically-sliding bar secured to the swinging door, provided at its lower end with a swinging bolt which is adapted to pass behind a staple or socket which is bolted or secured to the body of the car in such a manner that the bolt can be released only by raising the sliding bar.

I will now describe my invention, so that others skilled in the art may manufacture and use the same.

In the drawings, 2 represents the end door of the car, which is supported at its upper end on hinges 3, so that the door may be swung open from the bottom when the coal-car is tipped. In the middle of the door is a sliding bar or plate 4, which may be formed of doubled sheet metal. This bar 4 is pivoted at its upper end to the hand-lever 5, which is pivoted to the door of the car at 6 and is held in place by the keeper 7. The bar 4 is held in place against the door of the car by the keeper 8, which, however, permits the bar to slide up and down on the movement of the hand-lever 5. Pivoted to the lower end of the bar 4 is

the swinging bolt 9, which is preferably in the form of a yoke, the ends of the bar hanging loosely down against the end 10 of the car. Bolted to the floor 11 of the car is the staple 12, which extends outwardly from the car and then down and under the draw-bar 13, thereby forming a pocket 14, into which the ends of the bolt 9 may drop and be retained between the staple 12 and the end 10 of the car.

The operation of my device is as follows: When it is desired to empty the car, the car is tipped and the door 2 is released, so that it shall swing open. This releasing is done by lifting the hand-lever 5, which raises the bar 4 sufficiently to bring the end of the bolt 9 above the staple 12, thereby releasing the bolt and permitting the door to swing open. When the load has been emptied and the car righted, the door swings shut, and as it does so the ends of the pivoted bolt 9 strikes the staple 12 and swing back sufficiently to allow their passage over the staple. When the bolt has passed over the staple, it swings to a vertical position, the ends of the bolt lying between the staple and the end of the car in the position already described. This passage of the bolt over the staple is shown by dotted lines in Fig. 2.

The advantages of my invention will be appreciated by those skilled in the art. It provides a locking-latch which is simple, easily operated, and automatic in its action of locking the door as soon as the door swings back to its normal position.

It will be understood that the shape and form of my improvement may be varied to meet the requirements of different kinds of doors.

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

1. A locking-latch for swinging doors, consisting in a vertically-sliding bar, a guide for said bar, a swinging bolt pivoted to the lower end of said bar, and a staple secured to the body of the car so as to form a pocket adapted to

receive and retain the end of the swinging bolt; substantially as described.

2. A locking-latch for swinging doors, consisting in a vertically-sliding bar, a guide for
5 said bar, a swinging bolt pivoted to the lower end of the bar, a staple secured to the body of the car so as to form a pocket adapted to receive and retain the lower end of the swinging

bolt, and a lever for operating the bar; substantially as described. 10

In testimony whereof I have hereunto set my hand.

ALBERT T. CORRELL.

Witnesses:

JOHN G. BYERLY,
RILEY WAGNER.