(No Model.)

# S. BYRNE.

## CAR COUPLING.

No. 385,500. Patented July 3, 1888.

Fig. 1.

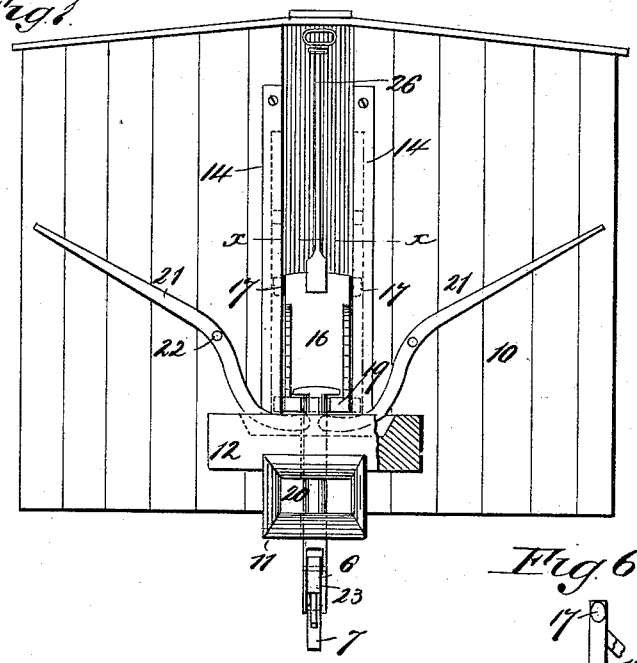



Fig. 2.

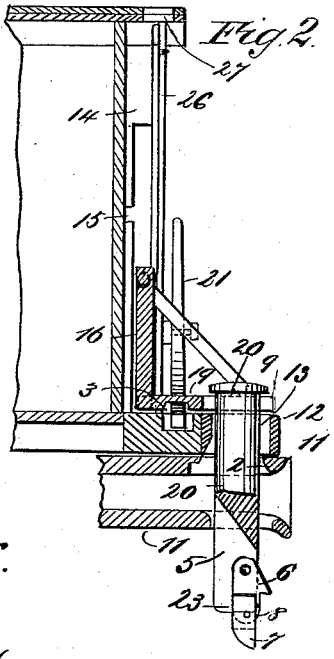



Fig. 6.

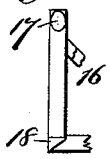



Fig. 3

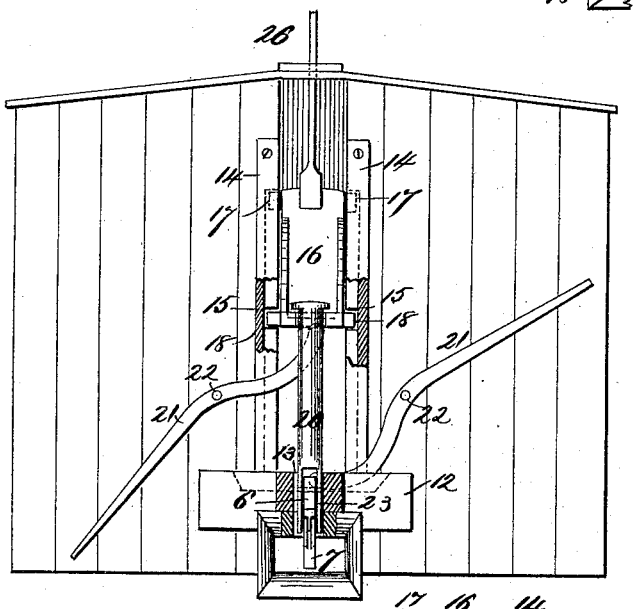



Fig. 4

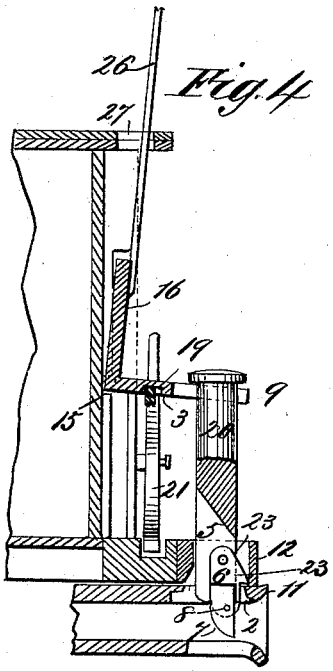
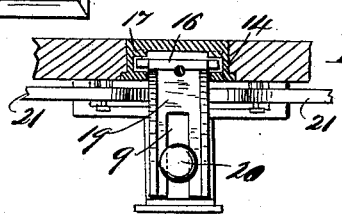



Fig. 5

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# UNITED STATES PATENT OFFICE.

SAMUEL BYRNE, OF BROWN'S VALLEY, CALIFORNIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 385,500, dated July 3, 1888.

Application filed March 1, 1888. Serial No. 265,865. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL BYRNE, of Brown's Valley, in the county of Yuba and State of California, have invented a new and Improved Car-Coupler, of which the following is a full, clear, and exact description.

The object of this invention is to provide a coupler that is especially applicable for use in connection with freight-cars, the parts being so arranged that the cars may be coupled or uncoupled from the sides or tops thereof, thus avoiding the danger incident to an entrance between the ends of the cars to bring about such coupling and uncoupling.

The present invention is an improvement upon the coupler illustrated, described, and claimed in Letters Patent No. 372,893, granted to me on the 8th of November, 1887, the invention relating more particularly to certain devices for raising and lowering the coupling-pin, all as will be hereinafter more fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is an end view of a car-body, representing the same as it appears when provided with my improved form of coupling. Fig. 2 is a central longitudinal sectional view of the coupling, the pin and the parts arranged in connection therewith being represented in their lowered or coupled position. Fig. 3 is an end view of the car-body in partial section, representing the coupling-pin and the other parts arranged in connection therewith as they appear when in the uncoupled position. Fig. 4 is a longitudinal sectional view of the coupler, the parts being in the position in which they are shown in Fig. 3. Fig. 5 is a cross-sectional view taken on line *x x* of Fig. 1, and Fig. 6 is a detail view of the lifting-slide.

In the drawings, 10 represents a car-body, and 11 a draw-head connected thereto in the usual manner. Above the draw-head 11 there is mounted a block, 12, formed with an aperture, 13, which extends beyond the forward defining-wall of the pin-aperture in the upper part of the draw-head, a seat or shoulder, 2, being thus provided.

To the end of the car I connect ways 14, each of which ways is formed with a recess, 15, and in the grooves of the ways 14, I mount a slide, 16, which is formed with upper guiding-lugs, 17, and lower guiding-lugs, 18, the corners of the lugs 17 being rounded and the lugs being of a size so that they will not enter the recesses 15 of the ways 14, while the lugs 18 are so proportioned as to enter said recesses; or, in some cases, the slide can be made of such a length that its upper lugs will not descend as low as the recesses 15. The slide 16 carries an outwardly-extending plate, 19, the end of which is slotted at 9 to receive the shank of the coupling-pin 20, the head of which pin rests upon the upper face of the plate 19. The under side of the plate 19 is grooved, as shown at 3, in order to receive the inner ends of levers 21, which levers are loosely mounted upon studs 22, the arrangement being such that if either of the levers be thrown downward to the position shown upon the left in Fig. 3, and the handle of the lever be moved outward from the end of the car-body, the lugs 18 will be carried into the recesses 15, and the slide 16 will be held in the position in which it is shown in Figs. 3 and 4—that is, in a position to maintain the pin in its raised position.

In order that the pin 20 may be set for automatic coupling, I form said pin with a recess, 5, in its lower end, and in the recess so formed I mount a gravity-catch, 23, which, when the pin is raised, engages the shoulder 2 of the draw-head 11. This catch 23 is formed of sections 6 and 7, said sections being pivotally connected at 8 in a manner such that when the pin is raised to the position shown in Fig. 4 a link within the draw-head may be pulled outward therefrom; but an entering link, striking against the section 7, will carry the section 6 from its seat 2, and the pin will drop downward to engage the entering coupling-link. In order that the slide 16 may be operated from the tops of the cars, I connect thereto a handle, 26, which may be drawn upward through a slot, 27, formed in the car-roof, as best shown in Figs. 2 and 4.

In operation, if it is desired to uncouple the cars, either one of the levers 21 is depressed, or the rod or handle 26 is drawn up and the block 16 shifted so that its projections 18 will enter the recesses 15 of the ways 14. If the slide 16 be left in this position, the car will not

couple with the link of an approaching car; but if it is desired that the cars should couple automatically, the slide 16 is lowered to the position in which it is shown in Fig. 1, and then if the link of an approaching car enters the draw-head 11 it will strike against the section 7 of the catch 23, and will carry the catch from engagement with the shoulder 2, thus permitting the pin to drop into engagement with the link.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a car-coupling, the combination, with guideways on the end of a car, provided with recesses, of a slide provided with lugs fitting in the grooves of the said ways, and an outwardly-extending plate, 19, having a slot, 9, to receive the shank of a coupling-pin, and means for operating the said slide, substantially as herein shown and described.

2. In a car-coupling, the combination, with ways 14, formed with recesses 15, of a slide, 16, formed with upper projections, 17, having rounded corners, and lower projections, 18, adapted to enter the grooves 15, a plate carried by the slide, said plate being formed with a groove, 3, and a recess or slot, 9, levers pivotally connected to the car-end, and arranged so that their inner ends will enter the grooves 3, and a coupling-pin, the shank of which passes through the slot 9, substantially as described.

SAMUEL BYRNE.

Witnesses:

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