(No Model.) 2 Sheets—Sheet 1.

T. MARONEY.

CAR COUPLING.

No. 366,018. Patented July 5, 1887.

Fig. 1

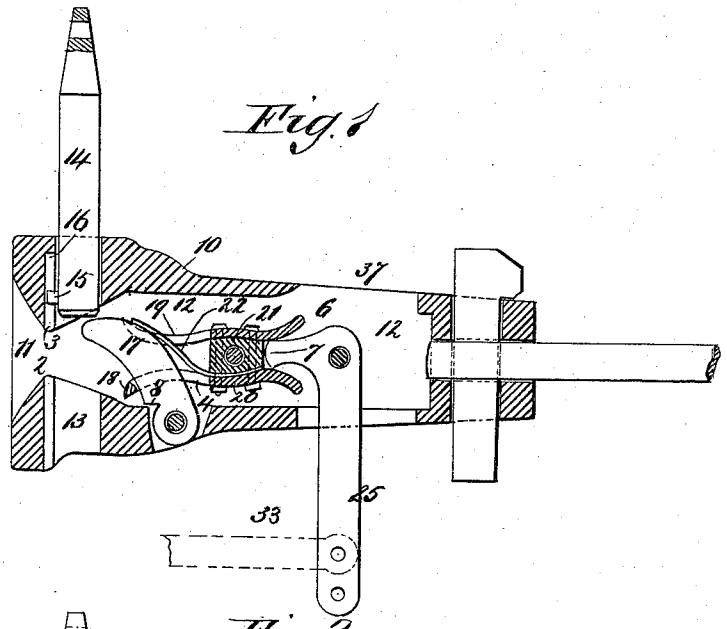


Fig. 2

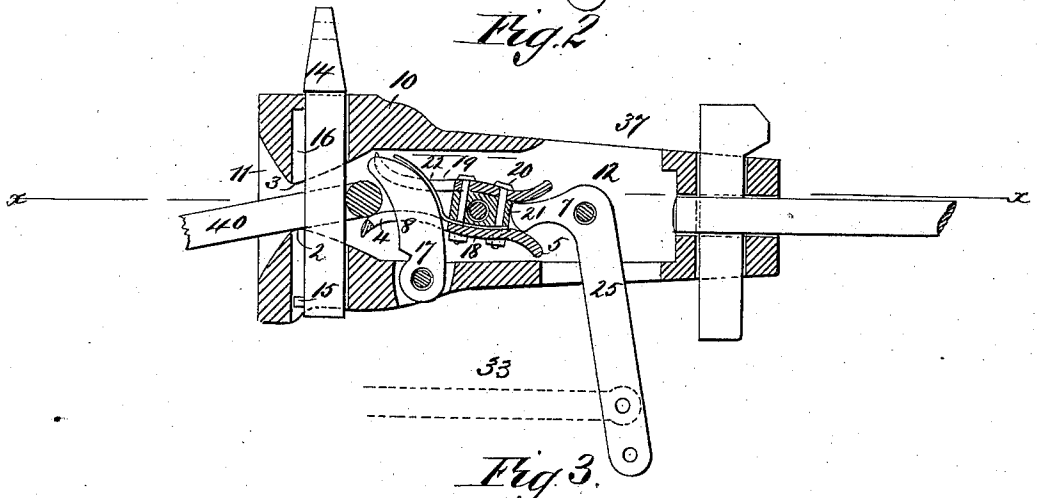
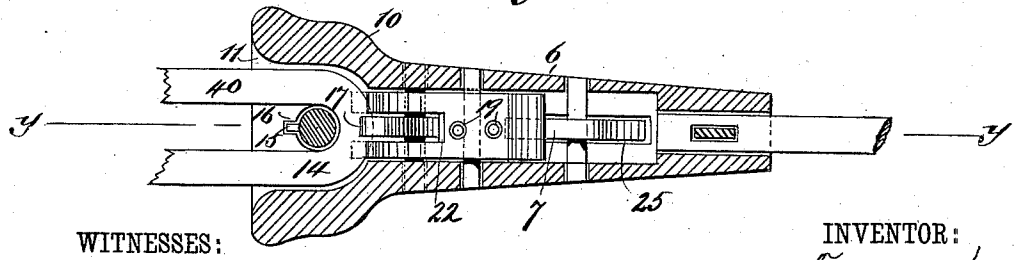


Fig. 3.



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(No Model.) 2 Sheets—Sheet 2.

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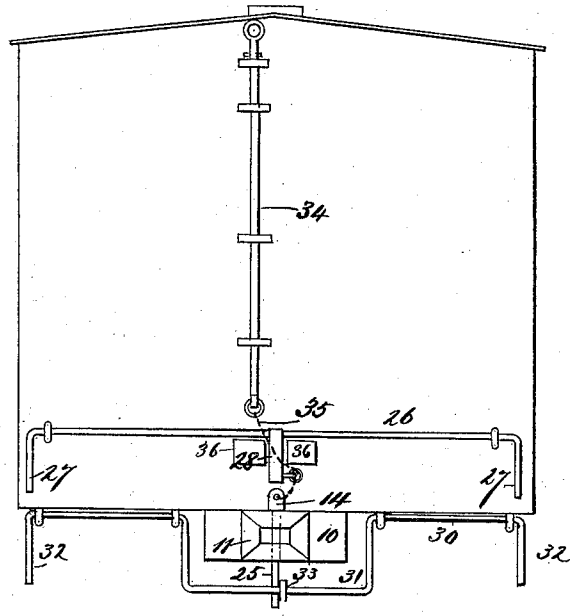
Fig. 4



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UNITED STATES PATENT OFFICE.

THOMAS MARONEY, OF WEEDSPORT, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 366,018, dated July 5, 1887.

Application filed April 21, 1887. Serial No. 235,636. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MARONEY, of Weedsport, in the county of Cayuga and State of New York, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

This invention relates to car-couplers, the object of the invention being to provide a coupler wherein the coupling-pin will be automatically set and held for coupling with an entering link, and wherein the coupler is provided with a link-adjusting attachment, through the medium of which attachment the projecting end of the link may be raised or lowered to a proper position to couple with cars of most any of the standard heights.

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 a central longitudinal sectional view of my improved form of coupler and link-adjuster, the parts being represented as they appear when the coupling-pin is raised and supported in position for automatic coupling. Fig. 2 is a similar view, the parts, however, being represented as they appear after the coupling-pin has dropped down to engage with the link, the Figs. 1 and 2 being taken upon a line corresponding with the line *y y* of Fig. 3. Fig. 3 is a sectional plan view taken upon a line corresponding with the line *x x* of Fig. 2; and Fig. 4 is a view of the end of a car, representing the attachment by which my coupler is operated.

In the drawings, 10 represents a draw-head having a flaring mouth, 11, behind which there is a recess, 12, said recess widening gradually for a short distance as it recedes from the mouth 11, so that just within the mouth there is a lower ridge, 2, and an upper ridge, 3, as shown in Figs. 1 and 2. Just behind these ridges 2 there is formed a vertical aperture, 13, in which there is mounted a coupling-pin, 14, said coupling-pin being provided with a lug, 15, that rides in a groove, 16, formed in advance of the coupling-pin aperture. To the rear of the aperture 13 I pivotally mount a pin-support, 17, which extends upward through an aperture, 4, that is formed in the lower jaw, 18, of a link-adjuster, 20, the upper jaw, 19, of said adjuster being longitudinally slotted to provide for the free play of the pin-support 17. The jaws 18 and 19 of the link-adjuster are bolted to a block, 21, that is pivotally mounted in the recess 12, and between the jaw 18 and the block 21 I mount a forwardly-extending spring, 22, which bears against the rear curved face of the pin-support 17, and normally acts to force said support to the position in which it is shown in Fig. 1—that is, to a position so that the forward upper end of the support will be beneath the lower opening of the upper section of the coupling-pin aperture. The jaws 18 and 19 extend to the rear of the block 21 and flare outward from said block, and the space between these rearwardly-extending arms 5 and 6 is entered by the nose 7 of the lever 25, said lever being pivotally mounted within the recess 12.

In attaching my improved form of coupling to a car the draw-head is connected to a draw-bar in the usual manner, and across the end of the car there is mounted a shaft, 26, which is provided with lever arms or handles 27, and with a central forwardly and downwardly extending lever-arm, 28, that is connected to the upper end of the coupling-pin 14, the arrangement being such that by turning the lever-arms 27 outward and away from the end of the car the arm 28 will be raised and the coupling-pin 14 drawn out of the link-recess of the draw-head; and, as the coupling-pin is so drawn out of the link-recess, the spring 22 will act to force the pin-support 17 to the position in which it is shown in Fig. 1, so that when the force brought to bear upon the lever-arms 27 is relaxed the lever will be upheld in a position for automatic coupling with any entering-link. The pin-support 17 is formed with a shoulder, 8, which serves as a stop and defines the position of the support. Across the bottom of the car there is mounted a shaft, 30, the central portion of which is carried down in the form of a crank, as 31, so as to extend below the draw-head 10, while the ends of the shafts are provided with lever arms or handles 32. The crank 31 is connected to the lever 25 by means of a link, 33, the arrangement being such that as either of the lever-arms 32 is drawn forward the lever 25 will be drawn forward. The nose 7 of said lever will be consequently raised, and the jaws 18 and 19 will be consequently depressed, thus carrying the

inner end of the coupling-link, which link is shown at 40, downward and elevating the extending end of said link. By moving the lever-arm 32 in an opposite direction the jaws 18 and 19 will be raised, and the extending end of the coupling-link will be depressed. By this arrangement I am able to adjust the link so that it will enter the draw-head of most any coupling apparatus.

In order that the cars may be uncoupled from the top of the car, I connect a vertical rod, 34, to the end of the car, as illustrated in Fig. 4, and the lower end of this rod I connect by means of a chain, 35, with the arm 28, so that by pulling up on the rod 34 the pin 14 will be drawn out of the draw-head.

From the construction described it will be seen that the cars may be uncoupled from the top or from either side of the car, and that as the cars are so uncoupled the pin 14 will be set for automatic coupling with any entering-link, whereby all necessity of the brakemen or yardmen entering the space between the ends of the cars for the purpose of coupling or uncoupling them is avoided. When the shaft 26 is turned to raise the arm 28 by shifting the shaft endwise, the arm may be rested upon one of the outwardly-extending stops 36. By forming the draw-head with the ridges 2 and 3, as described, I provide for an exceedingly wide range in the adjustment of the link 40.

In order that the several parts of the link-adjuster may be reached, should any of such parts become broken or disarranged, I provide an opening, 37, which communicates with the main recess of the draw-head.

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

1. The combination, with a recessed draw-head, of a pivoted pin-support, and a link-adjuster mounted in the recess of the draw-head in rear of the pin-support, and having forwardly-extending jaws, substantially as herein shown and described.

2. The combination, with a draw-head formed with a pin-aperture, of a pin-support mounted to the rear of such aperture, a pivotally-mounted link-adjuster having two forwardly-extending jaws, the lower one of which is apertured to receive the pin-support, while the upper jaw is longitudinally slotted to provide for the entrance of said pin-support, a spring arranged in connection with the pin-support, and a means for rocking the link-adjuster, substantially as described.

3. The combination, with a draw-head formed with a ridge, 2, of a link-adjuster pivotally mounted within said draw-head and formed with forwardly-extending jaws and rearwardly-extending arms, a spring carried by the link-adjuster, a pin-support pivotally mounted within the draw-head and arranged to extend through an aperture formed in one of the link-adjuster jaws and to enter a slot formed in the other jaw, and an operating-lever that is formed with a nose which enters the space between the arms of the link-adjuster, substantially as described.

THOMAS MARONEY.

Witnesses:
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