(No Model.)

J. D. BARRY. CAR COUPLING.

No. 557,942.

Patented Apr. 7, 1896.



UNITED STATES PATENT OFFICE.

JEFFERSON D. BARRY, OF MARLIN, TEXAS, ASSIGNOR OF ONE-HALF TO T. S. CLARK, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 557,942, dated April 7, 1896.

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To all whom it may concern: Be it known that I, JEFFERSON D. BARRY, a citizen of the United States, residing at Marlin, in the county of Falls and State of Texas, 5 have invented certain new and useful Improvements in Car-Couplings; and I do hereby 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 10 it appertains to make and use the same.

My invention relates to improvements in car-couplings, especially those of the link-and-pin type; and the said invention consists in certain novel features hereinafter de-15 scribed and claimed.

 ${\bf Reference} is had to the accompanying draw$ ings, in which the same parts are indicated by the same letters throughout the several views.

Figure 1 is a central vertical section through 20 my improved car-coupling, showing the pin in the lifted position. Fig. 2 is a similar view to that shown in Fig. 1, excepting that the pin is lowered and engages the link. Fig. 3 rep-25 resents an end view of a car-body fitted with my coupling.

A represents a draw-bar, which is preferably of the ordinary type as used with linkand pin couplings and is attached to the car-30 body B in any convenient way. This draw-

bar A is provided with a flaring mouth A^0 , a vertical perforation a' for the pin D, a hori-zontal chamber A' for the latch E, which supports the pin when in the raised position, and 35 with a vertical slot A2, in which the actuat-

ing-weight is pivoted. C represents the link, which is of the ordinary construction.

D represents the ordinary form of coupling-40 pin.

E represents a latch or link lifting device which slides between the side walls a' in the chamber A'. This latch is provided with a

forwardly-projecting arm e, curved upward, 45 as at e', and terminating in a grooved shoul-45 as at e, and terminating in a grooted should der e², adapted to receive the rounded end of the link, as shown most clearly in Fig. 2. This latch E is provided with enlarged ribs or lugs e³ and e⁴, separated from each other
50 by the reduced portion e⁵, by means of which ribs friction on the latch in the chamber A'

is greatly reduced. The base of the latch is provided with a groove e^6 , in which engages the head f of the operating-weight F, which is pivoted on the pin G, extending through 55 the draw-bar. The function of this weight will be to normally press the latch E forward toward the pin D and to cause the said latch to pass beneath the pin and support the same when the pin is lifted, the parts then being 60 in the position shown in Fig. 1. When the parts are in this position and the link enters the draw-head from the opposite car, the link striking the shoulder e^2 will push the latch E back and will allow the pin D to fall by 65 gravity, thus engaging the said link, as shown in Fig. 2. Thus it will be seen that when the pin is lifted the same will be supported on the latch and the latch will allow the pin to drop when the cars come together. 70

To avoid going between the cars, I provide the apparatus for lifting the pin shown at Fig. 3, in which H represents the lifting-chain, secured at its lower end to the pin D and at its upper end to the hand lever K, which is 75 pivoted at k at the end of the car and is provided with a handle k'.

In order to lift the link from the top of the car, as frequently becomes necessary, I pro-vide a second lifting-rod M, terminating in 80 the handle m. Should the pin be lifted either by the rod M or by the lever K, the weight F will force the latch E forward again and it will support the pin, and thus the said pin will be held supported ready for the cars to 85 come together again.

It will be seen that the herein-described invention represents a cheap, simple, and efficient device, whereby the ordinary link-andpin coupling may be made automatic, and 90 whereby all necessity for the train-hands to pass between the cars for the purpose of coupling or uncoupling is obviated.

In order to convert the ordinary link-andpin draw-bar as commonly used on trains to 95 the form of coupling shown in the drawings, it will only be necessary to mill out the slot \mathbf{A}^2 and to fit the latch $\check{\mathbf{E}}$ in the hollow in the draw-head, which may be also milled out, if desired; but the latch should preferably be roc made to fit the hollow of the drawhead as it ordinarily exists.

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

1. In a link-and-pin car-coupling, the combi-5 nation with a hollow draw-head provided with a horizontal chamber, a vertical pin-hole near the forward end of said chamber, and a slot in the lower part of said draw-head opening into said chamber, of a sliding latch mounted

- 10 in said chamber and provided with a lip projecting beyond the outer end of said latch and curved downward as shown, and with a groove on the lower side of said latch, of a pivoted arm engaging in said groove, and a
- ¹⁵ weight integral with said arm and wholly inclosed within said slot and adapted to move said sliding latch forward beneath the lower end of the pin when the latter is raised, substantially as described.
- 20 2. In a link-and-pin car-coupling, the combination with a hollow draw-head, provided with a horizontal chamber, a vertical pin-hole near

the forward end of said chamber, and a slot in the lower part of said draw-head opening intosaid chamber, of a coupling-pin mounted 25 in said pin-hole, a sliding latch mounted in said chamber, and provided with a lip projecting beyond the outer edge of said latch and curved downward as shown, with ribs on said latch engaging the walls of said chamber, and a groove on the lower side of said latch, of a pivoted armengaging in said groove, and a weight integral with said arm and wholly inclosed within said slot and adapted to move said sliding latch forward beneath 35 the lower end of the pin when the latter is raised, substantially as described.

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

JEFFERSON D. BARRY.

Witnesses:

Jos. H. Blackwood, F. C. Yeates.