

(No Model.)

J. LA BURT.
CAR COUPLING.

No. 518,256.

Patented Apr. 17, 1894.

Fig. 1.

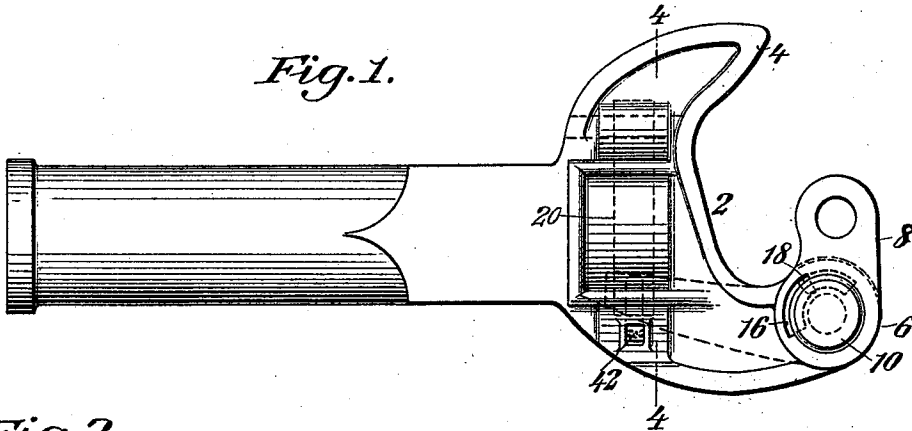


Fig. 2.

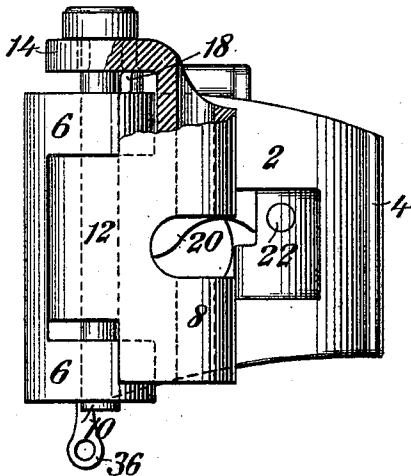


Fig. 3.

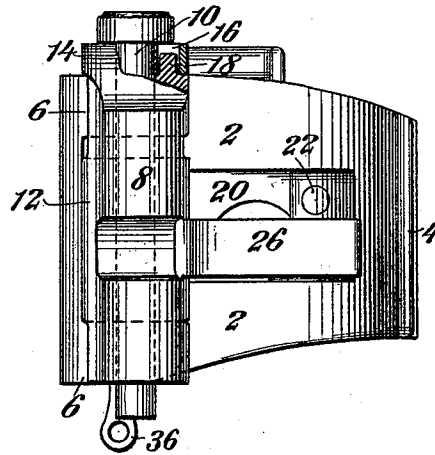


Fig. 5.

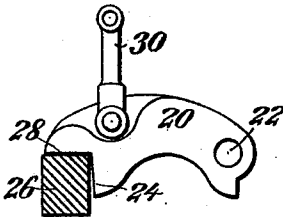
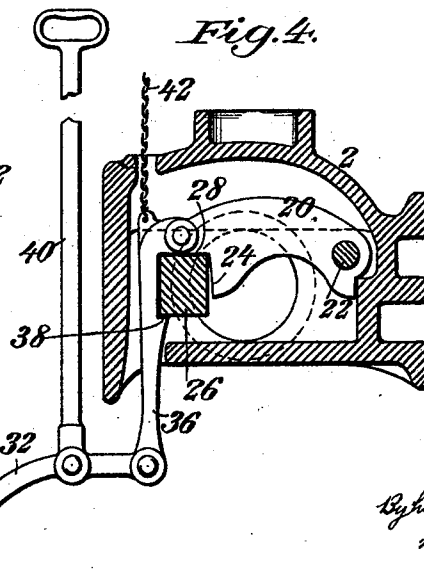


Fig. 4.



Witnesses:-

D. H. Haywood
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Inventor:-

John La Burt.
By his attorney
Henry F. Parker.

UNITED STATES PATENT OFFICE.

JOHN LA BURT, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO J. HERBERT WATSON, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 518,256, dated April 17, 1894.

Application filed June 22, 1893. Serial No. 478,440. (No model.)

To all whom it may concern:

Be it known that I, JOHN LA BURT, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

This invention relates to car couplers of the class in which swinging knuckles are employed.

The object of the invention is to provide a simple and easily operated locking device for the knuckle and also to provide a simple means for automatically swinging the knuckle open after it shall have been released from the locking device.

The invention, therefore, consists in the construction and novel arrangement of parts as hereinafter specified and more particularly set forth in the appended claims.

In the accompanying drawings Figure 1, is a top plan view of a coupler embodying my improvement. Fig. 2, is an end view thereof showing the knuckles closed. Fig. 3, is an end view showing the knuckles open. Fig. 4, is a section on the line 4, 4, of Fig. 1, and Fig. 5, shows a modification of a part of my invention.

Referring by reference characters to the drawings, 2, designates a coupler head of the usual construction having the horn 4, at one side and the forwardly projecting lugs 6, at its opposite side, between which the knuckle 8, is pivoted by means of a removable pin 10. As the knuckle 8, has a vertical movement during its lateral or swinging movement, for a purpose as hereinafter specified, the block portion 12, thereof, through which the pin 10, passes, is somewhat shorter than the distance between the lugs 6. When released from its locking device the knuckle is designed to automatically swing open and for this purpose I provide means as follows: At its upper side the knuckle has a bracket 14, which may be perforated as shown for the passage of the pin 10, and it may also be cast integral with the knuckle. At one side of its center the bracket has an arc shaped slot or opening 16, one end wall of which is beveled or inclined at its lower portion.

18, is a cam lug on the upper surface of the

upper lug 6, arranged within the rotary line of movement of the slot or opening 16, and adapted to enter said slot or opening when the knuckle is open.

When the knuckle is in its normal or closed position it will be held in its upper vertical position by means of the bracket 14, resting on the cam lug 18. When the knuckle is released from its locking device it will move downward by gravity and the inclined or beveled surface of the end wall of the slot 16, riding on the cam surface of the cam lug will cause the knuckle to automatically swing open.

I will now describe the locking mechanism for the knuckle.

20, indicates a gravity locking latch pivoted, as at 22, within the coupling head 2. At its free end the latch has a vertical shoulder 24, adapted to engage against the side of knuckle stem 26, and it has a portion 28, projecting over the stem 26. The latch 20, is cam shaped or curved on its lower side so that it may be automatically raised by the knuckle stem during the closing of the knuckle. This latch may be raised by means of an operating rod 30, extended directly from it as shown in the modification Fig. 5, but preferably I employ the means shown in Fig. 4, where provision is also made to prevent an accidental upward movement of the latch, which might be caused by the jar of a car, to release the knuckle. In this last named Fig. 32, is a lever pivoted at one end to a stud 34, extended from any desired fixed portion of a car. A supplemental locking link 36, is pivotally connected at its lower end to the free end of the lever 32, and at its upper end is pivotally connected to the latch 20. This locking link 36, has a shoulder or projection 38, adapted to engage against the under side of the knuckle stem 26, as shown, when the knuckle is in a closed position and prevent an accidental upward movement of the latch 20.

For raising the locking devices I may employ an operating rod 40, pivoted to the lever 32, between its ends, and extended upward within reach of an operator. This operating rod may preferably be employed when the coupler is attached to a passenger or platform car, but when attached to a freight or similar

box car I may use a chain 42, or similar device extended from the locking link 36, upward through a hole in the top wall of the coupling head.

5 As the projection 38, is quite short it will readily release itself from the knuckle stem when the locking device is drawn upward.

Having described my invention, what I claim is—

10 1. In a car coupler, the combination with the coupling head, and the swinging knuckle, of a locking device 20, and a locking link 36, provided with a shoulder 38, adapted to engage against a portion of said knuckle when
15 the device 20 is locked and to prevent an accidental upward movement of said locking device, substantially as specified.

20 2. In a car coupling, the combination with a head and a swinging knuckle, of the pivoted locking latch the supplemental locking link pivoted thereto and having a projection to engage under a portion of the knuckle and

means for operating the locking devices, substantially as specified.

3. In a car coupling the combination with 25 the coupling head and the swinging knuckle, of the pivoted locking latch, the locking link pivoted thereto, a pivoted lever engaging with the lower portion of said link, and means for lifting said locking devices, substantially as 30 specified.

4. The combination with the coupling head, of the swinging knuckle having the projection provided with a slot or opening, an end wall of which is beveled or inclined, and the 35 cam lug on the coupling head, substantially as specified.

Signed at New York, in the county of New York and State of New York, this 8th day of June, A. D. 1893.

JOHN LA BURT.

Witnesses:

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ERNEST A. RABEMER.