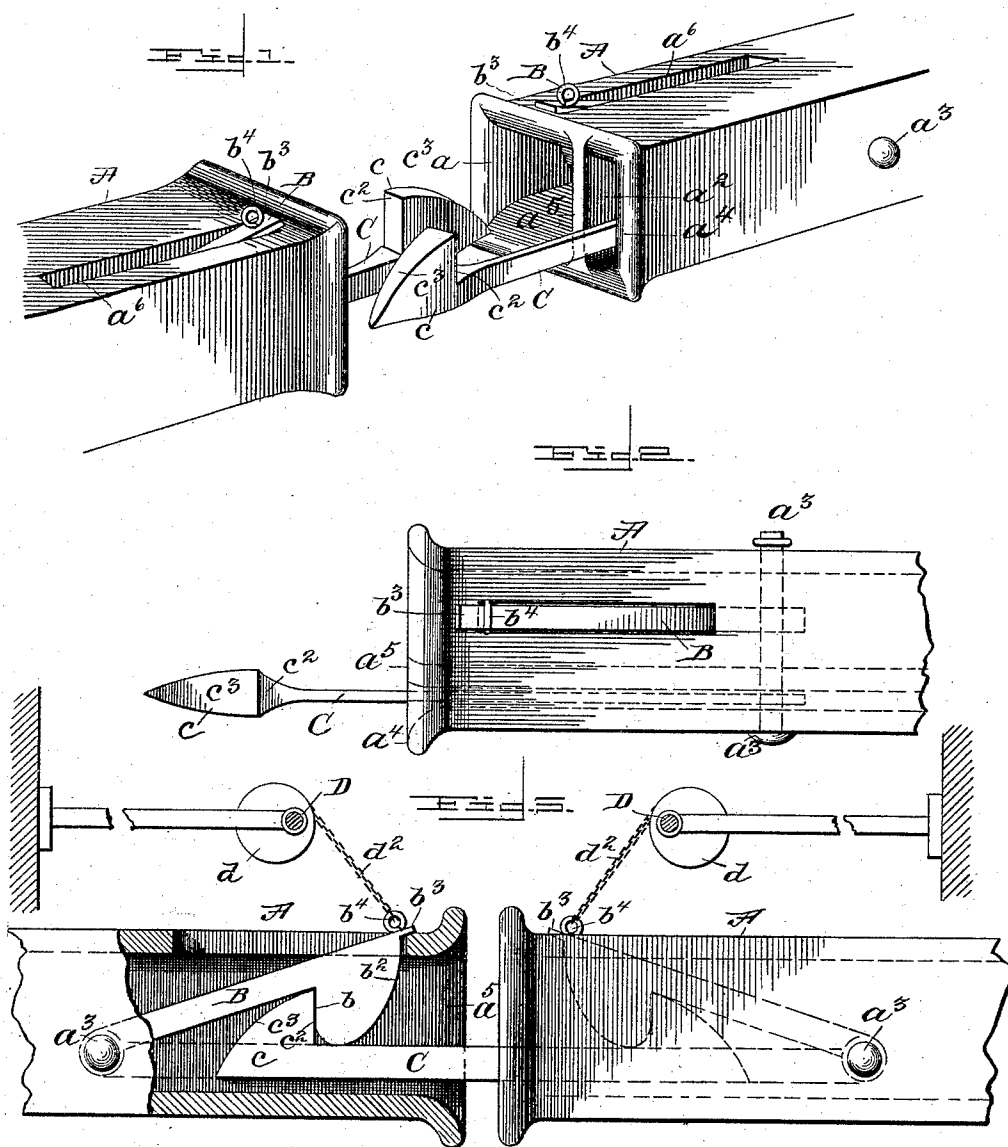


(No Model.)

R. W. WEYMOUTH & H. T. FULTON.
CAR COUPLING.

No. 487,341.

Patented Dec. 6, 1892.



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UNITED STATES PATENT OFFICE.

RICHARD W. WEYMOUTH AND HENRY T. FULTON, OF PUEBLO, COLORADO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 487,341, dated December 6, 1892.

Application filed March 12, 1892. Serial No. 424,637. (No model.)

To all whom it may concern:

Be it known that we, RICHARD W. WEYMOUTH and HENRY T. FULTON, citizens of the United States of America, residing at Pueblo, in the county of Pueblo and State of Colorado, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to car-couplings, more particularly to that class wherein each draw-head is provided with an arrow-head coupling-bar and gravity-latch.

The object of the invention is to produce a car-coupling which shall at once be simple of construction, convenient and efficient in operation, and comparatively inexpensive of manufacture; furthermore, in the employment of such means whereby the coupling is accomplished automatically and without prearrangement of the parts, thus obviating all danger incurred by the trainmen where certain parts must be manipulated by hand as the cars meet, and, finally, to produce an automatic coupling, in combination with such peculiar construction, whereby the uncoupling is accomplished either from the top or side of the car.

With these objects in view the invention consists in a car-coupling comprising the usual draw-heads, having a chamber subdivided by a central partition; furthermore, each draw-head provided with a coupling-hook and a gravity-latch, whereby the coupling is automatic in its operation; furthermore, the coupling-hooks at their engaging ends formed approximately into arrow-heads and provided with shoulders which are adapted to be engaged by corresponding shoulders of the gravity-latches as the cars meet.

The invention consists, furthermore, in various novel features whereby the several objects are attained.

In the drawings forming part of this application, wherein like letters of reference indicate corresponding parts, Figure 1 is a view in perspective of the draw-heads in position before coupling. Fig. 2 is a top plan view of the same; and Fig. 3 is a view in side elevation of the same shown coupled, parts being broken away to show the coupling-bar and gravity-latch.

In the drawings, A indicates the draw-heads, which are subdivided by the partition a^5 into two chambers a a^2 . The chamber a is designed to contain a gravity-latch B, which is pivoted on a pin a^3 , passing entirely through the draw-head. A coupling-bar C, extending some distance beyond the draw-head, is also pivotally mounted on the pin a^3 and is guided vertically between the side walls a^4 a^5 , forming chamber a^2 . The bar C is provided at its projecting end with an enlargement constructed approximately in the form of an arrow-head c , which is cut away to form a shoulder c^2 , adapted to engage a corresponding shoulder b of the gravity-latch B of the opposite draw-head as the cars are brought together. Thus it will be at once seen that the coupling is automatic in operation and that the parts are always in position for coupling.

Unlocking or uncoupling may be accomplished by various mechanical contrivances, such as a rod provided with a crank-arm or eccentric and chain connection with the gravity-latch B, as shown in Fig. 3, or a pivoted lever running to the side of the car and suitably connected to the latch B, as will be readily understood.

The operation of the invention is as follows: As the cars are brought together the inclined faces c^3 of the arrow-heads c engage oppositely-inclined faces b^2 of the latches B and cause said latches to move upwardly through the slots a^6 (formed in the top of the draw-heads) until the cut-away portions c^2 of the coupling-bars C pass under the latches, when they (the latches) will fall by their own weight and be caught by the lips or projections b^3 , as shown in Fig. 3, thus locking the cars together securely, yet allowing sufficient play for safety.

To uncouple the cars, we have shown one form of arrangement comprising the rod D, provided with an eccentric d and a connecting-chain d^2 , attached to the latch B by the staple b^4 . On the other end of the rod an operating-crank is secured, whereby the rod may be rotated and the latch raised, as will be obvious.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination of the draw-heads having the subdivisions as described, the gravity-latches and coupling-bars pivotally mounted in said subdivisions, 5 said coupling-bars provided with enlarged heads, and cut-away portions of the gravity-latches, whereby the coupling may be accomplished automatically, substantially as set forth.
- 10 2. In a car-coupling, the combination of the draw-heads having the subdivisions as described, the pivoted gravity-latches adapted to operate in suitably-arranged slots and supported in the end of said slots by means of 15 the lips or projections, being further provided with inclined faces and cut-away portions forming shoulders which are designed to engage oppositely-inclined faces and shoulders of the pivoted coupling-bars, whereby the 20 coupling is automatically operated, and suitable means for operating the parts to uncouple the same by hand, substantially as set forth.
- 25 3. In a car-coupling, the draw-head having a partition by which the chamber is subdivided and adapted to contain a coupling-bar

and gravity-latch, a suitably-formed slot in the upper wall of the latch-chamber, and a pin on which said bar and latch are pivotally mounted, substantially as described.

4. In a car-coupling, a gravity-latch consisting of a bar provided at or near the end 30 with an enlarged head having an inclined face and shoulder, a lip by which the latch is supported, and at the other end with an apertured head for the reception of a pivotal pin, 35 substantially as described.

5. In a car-coupling, a coupling-bar consisting of a bar having at one end an apertured head for the reception of a pivotal pin and at the other an enlargement constructed 40 approximately in the form of an arrow-head, provided with inclined face and a shoulder, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

RICHARD W. WEYMOUTH.
HENRY T. FULTON.

Witnesses:

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CHAS. MINOR.