



# UNITED STATES PATENT OFFICE.

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## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 479,635, dated July 26, 1892.

Application filed April 4, 1892. Serial No. 427,765. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL B. DOVER, of Adairsville, in the county of Bartow and State of Georgia, have invented certain new and useful Improvements in Automatic 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 it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in automatic car-couplings; and it consists in the construction and arrangement of parts, which will be fully described hereinafter, and particularly referred to in the claims.

The object of my invention is to provide an automatic car-coupling having two jaws pivoted at its front end and at opposite sides thereof and an operating and locking bar, which when engaged by the jaw of an adjoining car moves inward and forces the jaws together and by means of a lock is held in this inward position, which locks the jaws closed.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of a coupler which embodies my invention. Fig. 2 is a horizontal section of the same.

A indicates a draw-head, which is provided at its rear end with a central longitudinal opening B and at its front end with recesses C and in its upper and lower faces and in opposite sides with the recesses D. Projecting from the outer corners of the draw-head are the pivotal projections E, between which the jaws F and G are pivoted by means of vertical bolts H. These jaws F and G are pivoted between their ends and provided with the inwardly-extending inner ends *i*, which project into recesses formed in the sides of the outer end of the operating-bar I. This bar I is provided with a rearwardly-extending portion J, which extends into the longitudinal opening B, the projections *e* upon its upper and lower sides, which fit in the recesses C, and the laterally-extending projections *d*, just in rear of the said recesses, which projections *d* fit into the recesses D made in the sides of the draw-head. Extending upward from the top of the draw-head is an extension L, which is provided with

a vertical opening P and a vertical slot N at the front side thereof and communicating with the said opening. A pin Q is placed in this opening P and is provided with a laterally-extending reduced arm S, which extends through the vertical slot N. This arm S is provided with a ring T, which receives a chain that has its opposite end connected with a lever pivoted upon the box of the car, and by means of which lever the said pin is raised. In order to prevent the pin from being wholly withdrawn from the extension L, the upper end of the extension over the opening P is provided with a cap U, with which the upper end of the said pin engages when it has been raised sufficiently to release the locking-bar I.

The locking and operating bar I is held normally outward by means of a spring V, which is placed in the rear end of the opening B and engages the inner end of the said bar. When this bar I is out, the jaws F and G are separated at their farthest point; but when the bar I is forced inward against the tension of the spring by the jaw of an adjoining car striking it, the two jaws are forced together and catch between them the jaw of an adjoining car, and the pin drops through an opening *a* in the bar I, and thus locks it inward and the jaws closed. The inner ends *i* are rounded, as shown upon their outer sides, so that when the operating and locking bar I is forced outward by the spring the rounded portions rock against the operating and guiding projections *d* of the said bar.

When it is desired to uncouple the cars, it is only necessary to raise the pin either by hand or through the medium of a lever, when the bar I will move outward and the jaws F and G be opened, thus releasing the jaw held thereby.

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

1. A car-coupling comprising a draw-head, an operating-bar moving longitudinally therein, and a jaw pivoted between its ends to the front end of the said draw-head, the said bar having a recess in its side for the reception of the inner end of the said jaw, substantially as set forth.

2. A car-coupling comprising a draw-head,

an operating-bar moving longitudinally therein and provided with a laterally-extending projection, and a jaw pivoted between its ends to the outer end of the draw-head, the inner end  
5 of the said jaw being rounded upon its outer side, and with which the said lateral projection engages, substantially as described.

3. A car-coupling comprising a draw-head, an operating-bar moving longitudinally there-  
10 in, two jaws being each pivoted between their ends to opposite sides of the outer end of the draw-head, the inner ends of the said jaws engaging the said bar to be operated thereby, and a lock for the said bar, substantially as  
15 specified.

4. A car-coupling comprising two jaws pivoted at opposite sides of its front end, one jaw extending inward farther than the other, and a means for operating the two jaws to throw

them inward when engaged by the jaw or jaws 20 of an adjoining car, substantially as set forth.

5. A car-coupling comprising a draw-head, a jaw pivoted therein, a locking-bar for the jaw, a projection upon the draw-head having a vertical pin-opening and a slot communicat- 25 ing with the said opening extending longitudinally of the said projection, and a locking-pin which moves in the said opening, the pin having an arm which extends laterally therefrom and moves in the said slot, substantially as 30 specified.

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

SAMUEL B. DOVER.

Witnesses:

J. P. TOMLINSON,

W. T. SEXTON.