

(No Model.)

R. M. WOODARD.
CAR COUPLING.

No. 483,196.

Patented Sept. 27, 1892.

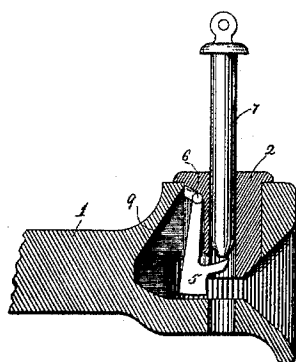


Fig. 1.

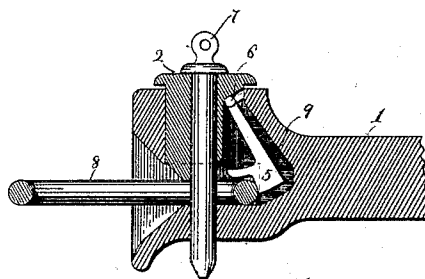


Fig. 2.

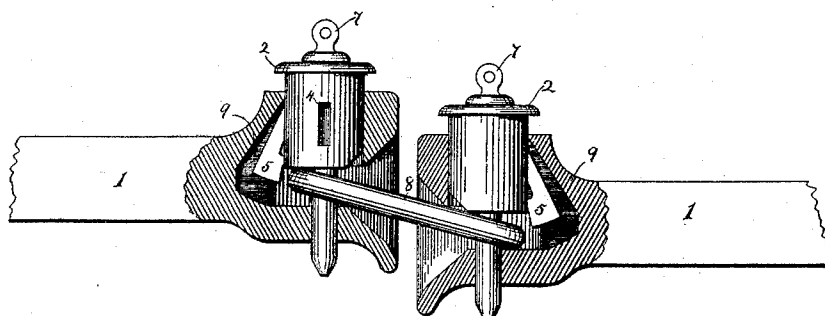


Fig. 3.

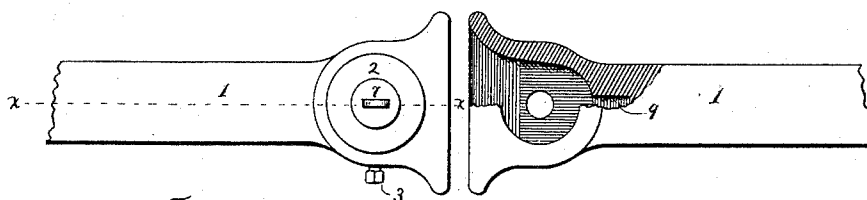


Fig. 4.

Fig. 5.

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UNITED STATES PATENT OFFICE.

RUSSELL M. WOODARD, OF NORTON, VERMONT.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 483,196, dated September 27, 1892.

Application filed April 25, 1892. Serial No. 430,468. (No model.)

To all whom it may concern:

Be it known that I, RUSSELL M. WOODARD, a citizen of the United States, residing at Norton, in the county of Essex and State of Vermont, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification.

My invention relates to improvements in car-couplers using a pin and link; and it consists in enlarging the pin-hole in the upper part of the draw-bar and inserting a heavy bush, which acts as a weight upon the link, holding it in a horizontal position by pressing the end of the link down upon a horizontal portion of the throat of the draw-bar. The said bush is provided with a latch to swing under the pin when it is withdrawn from the throat of the draw-bar, the latch being so arranged as to be tripped by the link as it enters the throat.

Figure 1 is a vertical section of my invention, taken on line *x x*, Fig. 4, and showing pin withdrawn. Fig. 2 is a vertical section taken on line *x x*, Fig. 4, with link inserted and pin down. Fig. 3 is a side view of two couplers connected, a portion of each draw-bar being cut away to show the position of the several parts. Fig. 4 is a top view of my invention. Fig. 5 is a top view of a draw-bar with a portion cut away to show throat.

Similar characters refer to similar parts throughout the several views.

1 is a draw-bar; 2, a bush fitted loosely to the draw-bar and secured by a screw 3, which enters a slot 4, allowing the bush to move vertically, but preventing it from being withdrawn.

5 is a latch fitted loosely in a groove in the side of bush 2 and provided with trunnions 6, which rest in a suitable enlarged portion of the said groove.

7 is the pin, and 8 the link.

In using this coupler the link 8 is inserted as in Fig. 2, the combined weight of the bush 2 and pin 7 serving to hold the link in a horizontal position by pressing it against the horizontal portion of the throat of the draw-bar. The pin 7 of the opposing coupler is raised until the latch 5 swings under it, as in Fig. 1.

If the couplers are now made to approach each other, the link 8, Fig. 2, will enter the mouth of the draw-bar, Fig. 1, raise the bush 2 sufficiently to allow the link to enter, when it will trip the latch 5 and allow the pin 7 to drop through the link, the latch being pushed back into the recess 9 in the draw-bar 1.

Should the draw-bars be of unequal height, as shown in Fig. 3, the link would be raised or depressed as it entered the higher or lower draw-bar, the bush 2 being free to rise sufficiently to accommodate the link in any position that it may assume.

In the ordinary draw-bar the throat is made large to allow the link to accommodate itself to different heights of draw-bars. A considerable portion of the pin is thus exposed to the strain in drawing the cars, and as a result pins are often bent and sometimes broken.

The use of the bush 2, by reducing the exposed portion of the pin to the actual space occupied by the link, reduces the liability to break or bend the pins.

I do not limit myself to the latch 5, formed as here shown, as any other device for holding the pin up and arranged to be carried by the bush and tripped by the link will be no departure from the spirit of my invention.

I have not shown nor do I claim any special means for raising the pin to uncouple the cars. The pin may be raised by hand or by a rod across the end of the car with projecting arm attached to the pin, or by a rod or chain attached to the pin and passing up the end of the car, so as to be operated from the top of same, or by any convenient means.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a car-coupler, a draw-bar, pin, and link, combined with a heavy bush which encircles the pin and is fitted loosely into the upper part of the draw-bar and which serves by its weight (combined with the weight of the pin) to hold the link in a horizontal position by pressing it down upon a horizontal portion of the throat of the draw-bar, substantially as described, and for the purpose set forth.

2. In a car-coupler, a draw-bar, pin, and link, combined with a bush which encircles the pin and is fitted loosely into the upper part of the draw-bar and with a latch carried
5 by the bush and arranged to swing under the end of the pin when it is raised and to be tripped by the link as it enters the throat of

the draw-bar, substantially as described, and for the purpose set forth.

RUSSELL M. WOODARD.

Witnesses:

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