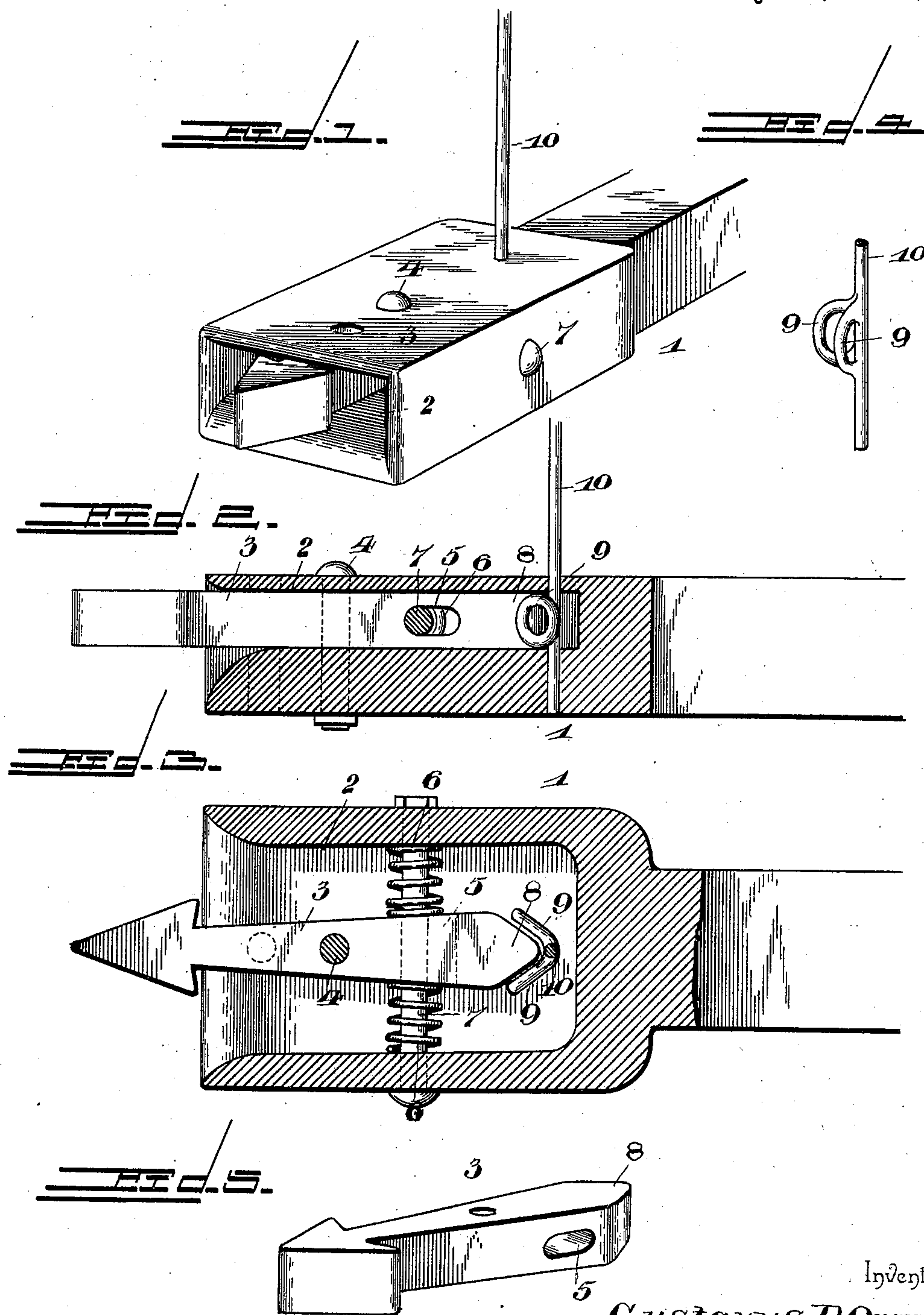


(No Model.)

G. B. QUARRIER.  
CAR COUPLING.

No. 564,160.

Patented July 14, 1896.



Inventor

Gustavus B. Quarrier.

Witnesses

*H. F. Doyle.*  
*J. F. Riley.*

By his Attorneys.

*C. A. Snow & Co.*



# UNITED STATES PATENT OFFICE.

GUSTAVUS B. QUARRIER, OF ST. ALBANS, WEST VIRGINIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 564,160, dated July 14, 1896.

Application filed April 29, 1896. Serial No. 589,558. (No model.)

*To all whom it may concern:*

Be it known that I, GUSTAVUS B. QUARRIER, a citizen of the United States, residing at St. Albans, in the county of Kanawha and State of West Virginia, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

10 The object of the present invention is to improve the construction of car-couplings, and to provide one which will be simple, inexpensive, strong, and durable, capable of coupling automatically, and adapted to be readily uncoupled from the top and sides of a car or platform of a coach.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a horizontal sectional view. Fig. 4 is a detail perspective view of the uncoupling-shaft. Fig. 5 is a detail perspective view of the link or catch.

30 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a draw-head having a longitudinal opening 2, in which is arranged a horizontal swinging link or catch 3, provided at its outer end with an arrow-head, and adapted to couple with a corresponding link or catch of another draw-head. The link or catch is pivoted at a point intermediate of the ends of its shank by a vertical pin 4, which is provided in rear of the pivot with a longitudinal slot 5, and it is held normally in a central position, longitudinally of the draw-head, by a pair of spiral springs 6. The spiral springs are interposed between the sides of the draw-head and the side faces of the shank of the link or catch, and they are disposed on a transverse pin 7, which passes through perforations in the sides of the draw-head, and which is arranged in the slot 5 of the shank of the link or catch. The springs permit the catch to swing horizontally laterally

of the draw-head sufficiently to permit the two arrow-heads to pass each other to effect the operation of coupling, and they also permit the necessary play of the links in rounding curves and the like.

The rear or inner end 8 of the shank of the link or catch is oppositely beveled, and is arranged between a pair of outwardly-extending arms 9 of a vertical shaft or lever 10, journaled on the draw-head and adapted to be rotated to swing the arrow-head of the link or catch out of engagement with the head of another link or catch to effect the operation of uncoupling.

The shaft may be extended to the top of a car and be provided with a suitable ratchet for locking it against rotation to hold the head of the catch or link out of engagement with another, and any suitable gear may be provided for enabling the shaft to be rotated from the sides of a car or the platform of a coach.

In order to enable the car-coupling to be connected with cars having the ordinary pin-and-link car-coupling the draw-head is provided with a coupling-pin perforation, and the catch or link is readily removable to enable an ordinary link to be employed.

It will be seen that the car-coupling is simple, inexpensive, strong, and durable, that it is positive and reliable in operation, and that it is capable of coupling automatically and of being readily uncoupled.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a car-coupling, the combination of a draw-head, a link or catch pivoted at a point intermediate of its ends in the draw-head and provided with an arrow-head, springs disposed at opposite sides of the link or catch, and a vertically-disposed shaft or lever provided with outwardly-extending arms arranged at opposite sides of the inner or rear ends of the link or catch, substantially as and for the purpose described.

2. In a car-coupling, the combination of a draw-head, a link or catch oppositely beveled at its rear or inner end, pivoted at a point in-

intermediate of its ends of the draw-head and  
provided with a longitudinal slot said link or  
catch being provided with an arrow-head, a  
transverse pin passing through the slot and  
5 the sides of the draw-head, spiral springs dis-  
posed on the transverse pin and arranged at  
opposite sides of the link or catch, and a  
vertically-disposed operating-shaft journaled  
on the draw-head and provided with a pair  
10 of forwardly or outwardly extending arms

receiving the beveled inner or rear end of  
the link or catch, substantially as and for the  
purpose described.

In testimony that I claim the foregoing as  
my own I have hereto affixed my signature in 15  
the presence of two witnesses.

GUSTAVUS B. QUARRIER.

Witnesses:

S. H. BOWLES,

J. M. WHEELER.