(No Model.)

J. D. CARR.

CAR COUPLING.

No. 437,092. Patented Sept. 23, 1890.

FIG. 1.

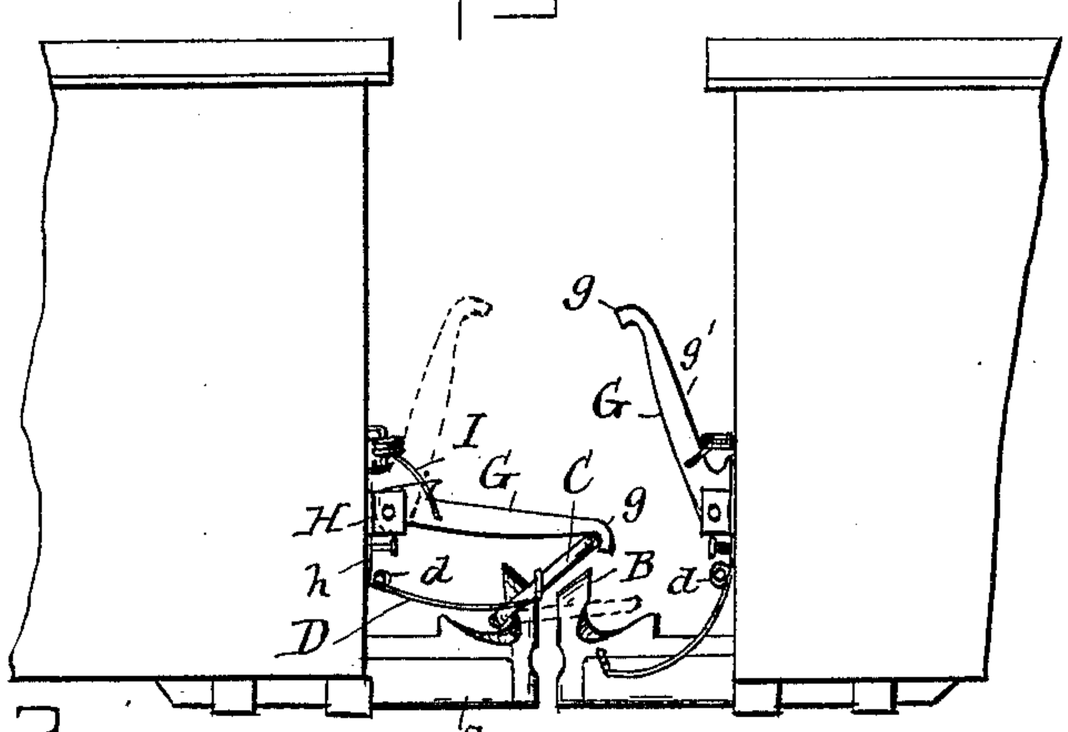


FIG. 2.

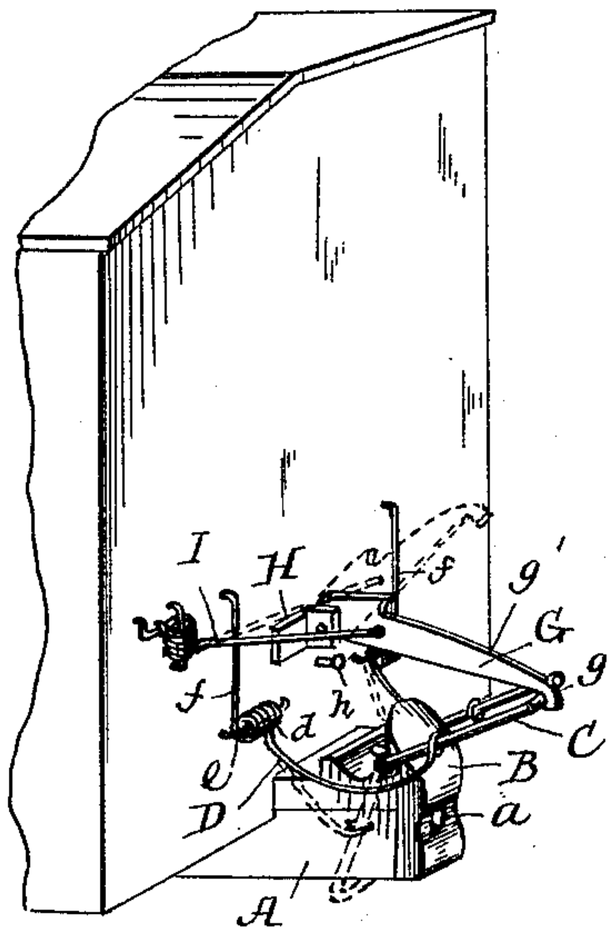


FIG. 3.

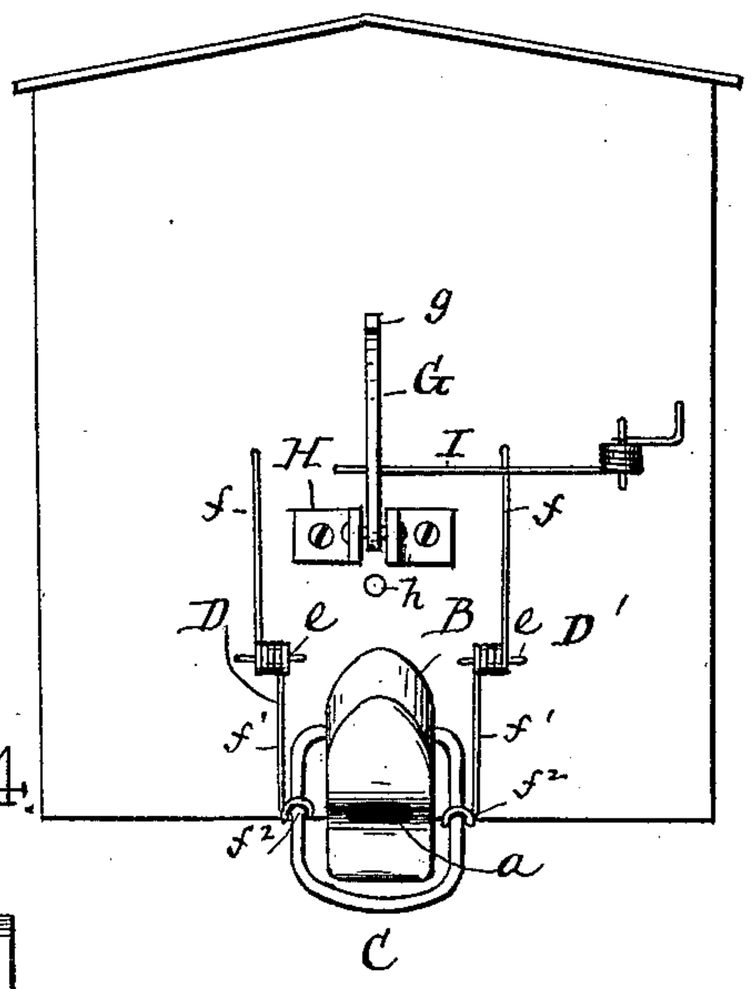
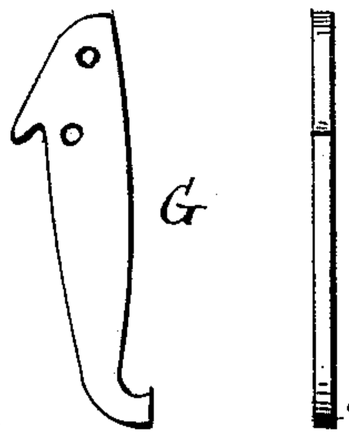


FIG. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES D. CARR, OF SAUK CENTRE, MINNESOTA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 437,092, dated September 23, 1890.

Application filed July 3, 1890. Serial No. 357,633. (No model.)

To all whom it may concern:

Be it known that I, JAMES D. CARR, a citizen of the United States, residing at Sauk Centre, in the county of Stearns and State of Minnesota, have invented certain new and useful Improvements in 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 appertains to make and use the same.

This invention relates to car-couplings, and has for its object to provide a simple and efficient mechanism for automatically coupling the cars and obviating the necessity of the brakeman going between the cars for coupling the same.

The improvement consists, essentially, of a spring-holder for engaging with the link, and which serves the threefold purpose of coupling the cars, holding the link on the draw-bar, and carrying the link out of the way when the cars are uncoupled.

The improvement consists also in a spring-actuated catch, which is adapted to hold the link in position for coupling against the tension of the spring-holder, and which will be disengaged from the said link at the instant the cars run together.

The improvement further consists in the novel features which hereinafter will be more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a side view showing the operation of the coupling by dotted lines. Fig. 2 is a perspective view of the coupling, showing it adjusted (the coupling) by full lines and the position of the parts when uncoupled by dotted lines. Fig. 3 is a front view of the coupling. Fig. 4 is a detached view of the link-holding catch.

The draw-bar A is secured to the car in any of the well-known ways, and is provided with the throat *a* for the reception in the ordinary link and with a vertical opening *a'* for the usual coupling-pin. The vertical extension B at the front end of the draw-bar curves rearwardly at its rear side and is rounded at its upper front end. The upper side of the draw-bar in the rear of the vertical extension B curves upwardly, forming a seat for the link C.

The spring-holder is composed of two members D and D', which are similarly constructed. Each member is composed of a bar which is bent to form a spring-coil *d* between its ends, through which a staple or keeper *e* passes and secures the said members to the car. The upper end *f* extends up and is secured to the car, whereas the lower end *f'* projects downwardly and is provided with a retaining-hook f^2, which is adapted to engage with the link C. The members D and D' are so disposed that the retaining-hooks f^2 will be adjacent to the sides of the draw-bar, thereby serving to hold the link C in the best possible manner.

The retaining-catch G is pivoted at its inner end to the car, preferably between the brackets H, and is provided at its outer end with a retaining-notch *g* to receive the outer end of the link C. The inner end of the catch G is straight, as shown at *g'*, and is adapted to rest against the car and limit the outward movement of the said catch. The stop *h* limits the downward movement of the said catch, and the catch is held up out of the way by the spring I, which is fastened at its outer end to the car, the inner end engaging with the said catch G, preferably by passing through an opening therein.

The operation of the invention is as follows: The link C is passed over the vertical extension B, and the members D and D' of the spring-holder are engaged with the side of the said link. To set the link for coupling the cars, the outer end is elevated and engaged with the retaining-catch G. When the cars are run together, the jar or yielding of the draw-bar or both will cause a disengagement of the link from the catch G, and the spring-holder, pressing down on the said link, will cause it to engage with the vertical extension B on the draw-bar of the opposing car and couple the two cars together. To uncouple the cars, the links must be lifted from engagement with the vertical extension B.

It will be observed that the members of the spring-holders press downward on the links between its ends, thereby preventing either end of the link from accidental engagement from the draw-bars. By means of the extension B being curved on its sides and front end in case of accident—such as the overturning of

the car—the latter will disengage itself from the train, thereby preventing further accident.

The links can be readily detached from one car and quickly attached to the other by simply springing the members D and D′ sufficiently far to disengage the retaining-hooks f^2 thereof from the links.

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

1. In a car-coupling, the combination, with a draw-bar provided with a vertical extension and the link, of a spring-holder adapted to press down upon the link between the ends thereof, and a retaining-catch, substantially as set forth.

2. In a car-coupling, the combination, with the draw-bar having the vertical extension D, which is curved on its rear side, of the spring-holder composed of two members, each member having a retaining-hook, as f^2, which is adapted to engage with and press down on the link between its ends, and a retaining-catch, substantially as set forth.

3. In a car-coupling, the combination, with the draw-bar having a vertical extension and a spring-holder, of the spring-actuated retaining-catch limited in its upward movement and having a retaining-notch in its front end to receive the retaining end of the link, substantially as set forth.

4. The hereinbefore-specified car-coupling, comprising the following elements: a draw-bar having a vertical extension, as B, curved on its rear side and rounded at its upper front end and having its upper side in the rear of said extension curved upwardly, the link, the spring-holder composed of two members, each member having a retaining-hook f^2, which engages with and presses down upon the link between the ends thereof, the retaining-catch G, limited in its downward and upward movement and having the retaining-notch g, and the spring I, for carrying the said catch out of the way, substantially as set forth.

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

JAMES D. CARR.

Witnesses:
M. HOGAN,
E. B. SIMONTON.