

*J. W. Allen
E. C. Boyles } Car Coupling.*

No. 122,304.

Patented Jan. 2, 1872.

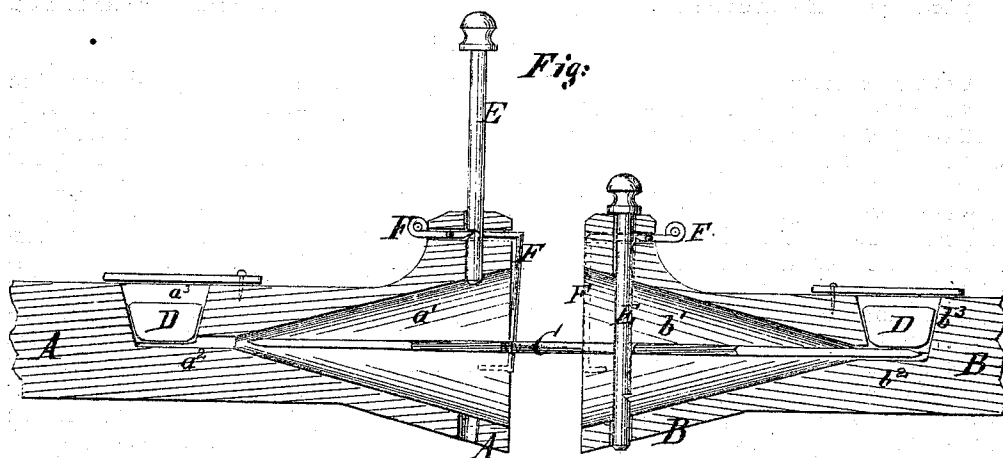
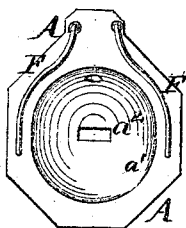


Fig: 2.



Fig: 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN W. ALLEN AND EDGAR C. BOYLES, OF MOUNT PLEASANT, IOWA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 122,304, dated January 2, 1872; antedated December 16, 1871.

To all whom it may concern:

Be it known that we, JOHN W. ALLEN and EDGAR C. BOYLES, of Mount Pleasant, in the county of Henry and State of Iowa, have invented a new and useful Improvement in Car-Couplings; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of our improved car-coupling. Fig. 2 is a detail view of the coupling-link. Fig. 3 is a front view of one of the bumper-heads.

Similar letters of reference indicate corresponding parts.

Our invention consists in improving car-couplings, as hereinafter fully described and subsequently pointed out in the claim.

A B represent the bumper-heads of two adjacent cars, which are designed to be connected with the cars in the ordinary manner. The mouths or cavities $a^1 b^1$ of the bumper-heads A B are made bell-shaped or conical, and at their inner ends are formed small recesses, $a^2 b^2$, to receive the ends of the coupling-link C. In the bumper-heads A B, above the recesses $a^2 b^2$, are formed larger recesses, $a^3 b^3$, to receive weights D. The ends of the recesses $a^3 b^3$ may be made inclined to correspond with the inclined ends of the weights D, so that the weights D cannot descend to the bottom of the recesses, but will leave spaces beneath them for the entrance of the ends of the coupling-link C. The recesses $a^3 b^3$ being wider than the recesses $a^2 b^2$, and not so deep, space will be left for the entrance of the ends of the link C beneath the weights D, even should the said weights descend to the bottom of the recesses $a^3 b^3$. To facilitate the entrance of the ends of the coupling-link C beneath the weights D the lower end edges of said weights are rounded or beveled off, as shown in Fig. 1. The weights D rest upon the ends of the coupling-link C, so that when the link is connected with only one bumper-head the weight resting upon its end will hold it in a horizontal

position ready to enter the bumper-head of the next car when the cars may be run together. The middle part of the coupling-link C is made in the shape of an ordinary coupling-link, but its ends are extended in the form of bars to enter the recesses $a^2 b^2$, beneath the weights D, the ends of the said bars being made tapering, to enable them to pass more readily beneath the weights D. E are the coupling-pins which pass down through holes in the bumper-heads A B in the ordinary manner, and which are made in the ordinary way, except that they have notches or grooves in their sides near their lower ends to receive the catch of the trigger F. The lower ends of the trigger F are attached to the lower side parts of the faces of the bumper-heads A B. The triggers F pass up along the faces of the bumper-heads A B and then pass back and around the pins E, and their upper ends project in the rear of the caps that cover their upper parts, as shown in Figs. 1 and 2. The faces of the bumper-heads A B are grooved beneath the triggers.

By this construction when the triggers are moved forward to support the pins E their lower or upright parts will project in front of the faces of the bumper-heads, as shown in Fig. 1, so that they may be struck by the bumper-head of the adjacent car when the cars are run together and be pushed back, allowing the coupling-pin to drop through the coupling-link, and thus couple the cars automatically.

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

The coupling-link C, having not only a projecting bar in front of the pin-receiving aperture, but also a bar extending backward through recess b^2 , combined with a weight, D, arranged in recess b^3 , and resting upon the back end of said link, for the purpose of maintaining the latter in a horizontal position.

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Witnesses:

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