J. WORRALL.
Car-Coupling.

No. 212,529. Patented Feb. 18, 1879.

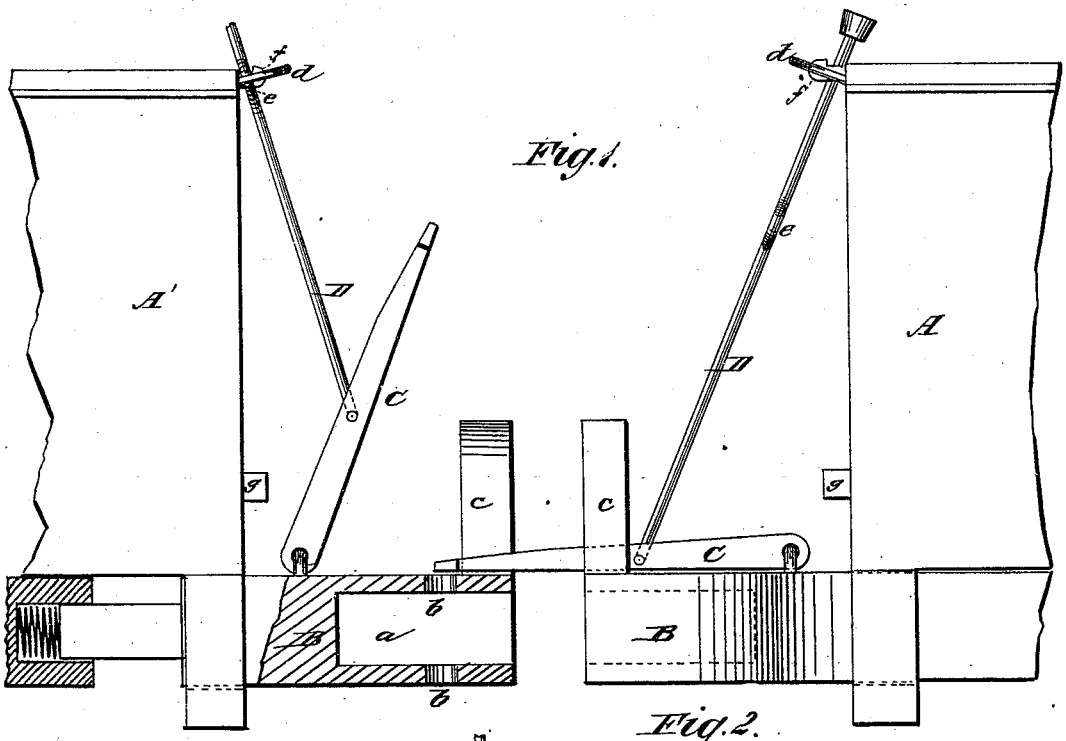
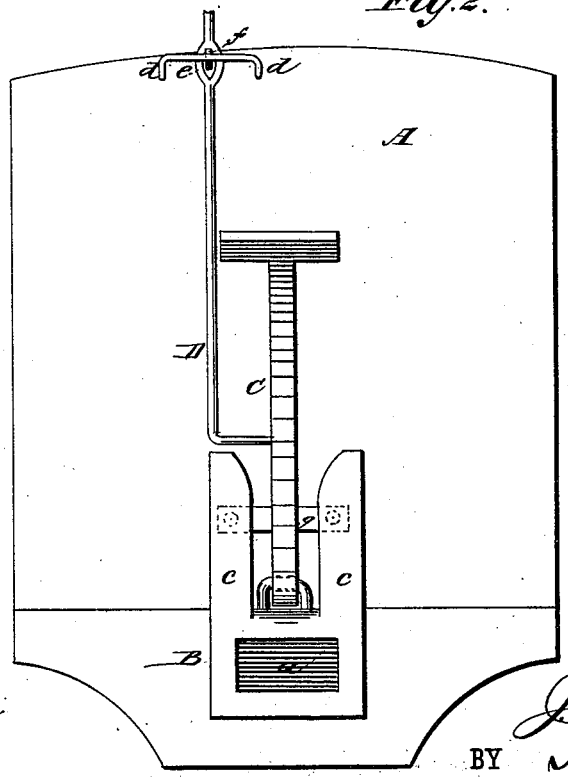


Fig. 1.

Fig. 2.



WITNESSES:
A. McArdle.
C. Sedgwick

INVENTOR:
J. Worrall
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN WORRALL, OF VIOLA, IOWA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **212,529**, dated February 18, 1879; application filed December 12, 1878.

To all whom it may concern:

Be it known that I, JOHN WORRALL, of Viola, in the county of Linn and State of Iowa, have invented a new and Improved Car-Coupler, of which the following is a specification:

This invention relates to an improved car-coupling to be used in connection with the ordinary coupling link and pin, the object whereof is to furnish a strong, simple, and automatic coupling that can be operated to uncouple the cars from the top of the car.

It consists of a T-shaped link or dog pivoted to the platform of the car or the top of the draw-bar, so as to extend beyond the end thereof, a rope or rod extending to the top of the car, for working the same, and a couple of horns or standards projecting upward from the end of the draw-bar on each car, whereby, when the cars are drawn together, the T link or dog falls down between the horns, the head engaging the same, and thus couples the cars together.

In the accompanying drawings, Figure 1 shows my improvement applied to two cars and coupling them, and Fig. 2 is an end view of the improvement.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A A′ represent the ordinary box-cars, provided with spring-acted draw-heads B B, in the usual manner, and adapted, by having sockets *a* and pin-holes *b*, to be coupled together by link-and-pin coupling. From the front or end of the draw-heads or buffers rise two horns or standards, *c c*.

C represents a T-headed link or dog, pivoted to the top of the draw-bar near the car, and extending sufficiently far beyond the draw-head to lie over the head of the draw-bar of the adjoining car, as shown in Fig. 1, and also arranged so that the shank falls between the horns of the car to which it is attached.

To the middle of link or dog C is pivoted the right-angular bent end of the rod D, the opposite end whereof extends up to the top of the car, and is held under a guard, *d*.

An eye, *e*, is made in the rod D at a point which enables it, when drawn up, to hold the link in an inclined position, free from engaging the horns, and is held by a hook, *f*, fixed to the car just under guard *d*.

On the front of the car, just above the draw-bar, is bolted horizontally a block, *g*, projecting out far enough to bear against the T-link when it is turned upward and backward against the front of the car.

The operation of my improvement is as follows: When the cars are to be coupled, one of the links is drawn up by means of rod D until it leans back against the car. This may be done at any time before the car moves, or while it is in motion, by the brakeman on top of the car. The T-link retains this position until the draw-bars or buffers come in contact, when the rebound throws the link forward, when it falls and couples with the car. Thus the device works automatically after it is once set in position.

In addition to this coupling, the cars may be connected by the ordinary link and pin, as my invention is supplemental to the old mode of coupling.

The danger attending the coupling of cars is entirely avoided by the use of my invention, as the men can attend to it from the top of the cars altogether.

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

The pivoted T-shaped link or dog C, the rod D, provided with the eye *e*, the guard or keeper *d*, and the hook *f*, in combination with the spring-acted draw-head B, having standards *c c*, and with the car A, provided with the projection *g*, whereby provision is made for disengaging the rod from the hook and allowing the cars to be automatically coupled, substantially as herein shown and described.

JOHN WORRALL.

Witnesses:
W. R. PEET,
ELIAS HODGIN.