Richard F. Randolph.

Impt in Apparatus for Coupling Cars.

107623

PATENTED SEP 20 1870

Fig. 1.

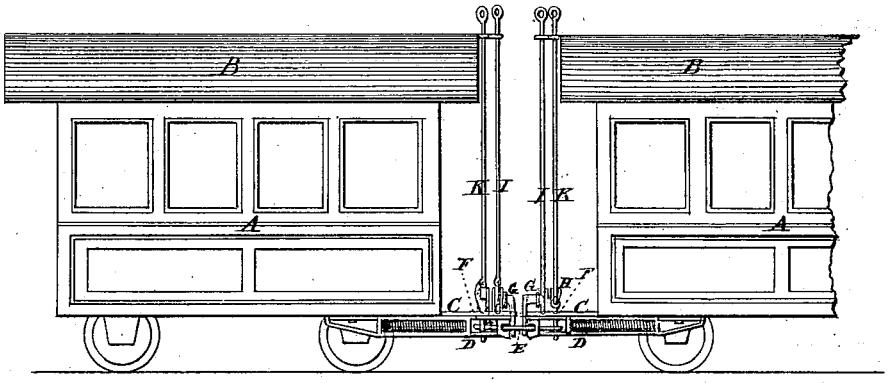


Fig. 2.

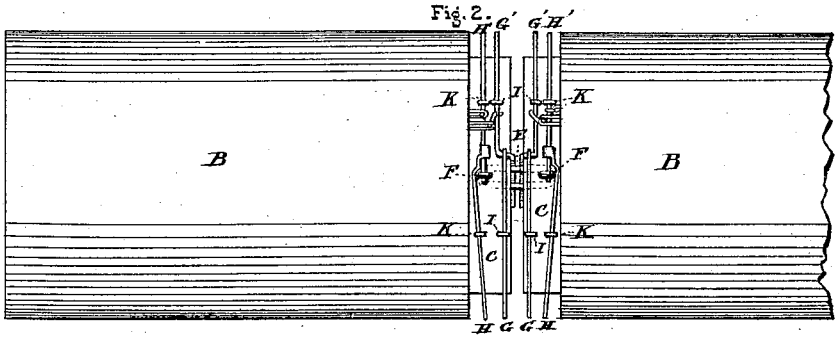
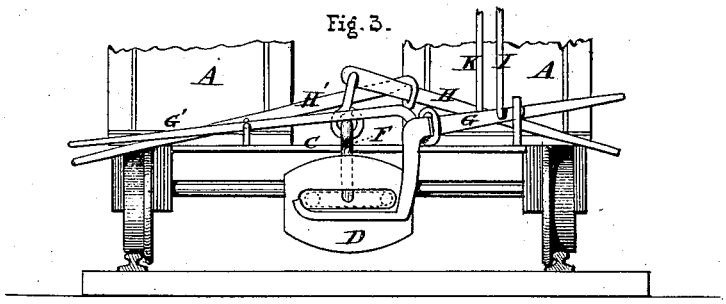


Fig. 3.



Witnesses.

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RICHARD F. RANDOLPH, JR., OF EAST PALESTINE, OHIO.

Letters Patent No. 107,623, *dated September* 20, 1870.

IMPROVEMENT IN APPARATUS FOR COUPLING CARS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, RICHARD F. RANDOLPH, Jr., of East Palestine, in the county of Columbiana, and in the State of Ohio, have invented certain new and useful Improvements in Apparatus for Coupling Cars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side elevation of two cars, having my apparatus attached;

Figure 2 is a plan view of the upper side of the same; and

Figure 3 is an end elevation of said cars.

Letters of like name and kind refer to like parts in each of the figures.

My invention is designed to assist in the operations of connecting together and detaching cars upon which couplings of ordinary construction are employed; and

It consists in the employment of a series of levers pivoted to or upon the car, and so arranged with reference to the link as to enable the same to be adjusted to position vertically, substantially as hereinafter set forth.

In the annexed drawing—

A represents a car of ordinary construction, provided with the usual running gear, and having a projecting roof, B, and platform, C, at either end.

Resting in suitable supports, secured to the lower side of the platform C, is an ordinary bell-mouth draw-bar, D, for containing one end of a straight link, E, which link is secured therein by means of a pin, F, passing vertically through a suitable opening provided in and through said draw-bar.

As thus constructed the coupling devices are the same as those most commonly used, and are open to serious objection by reason of the great danger to life life or limb occasioned by the operations of connecting or detaching the cars, which objections are entirely removed by means of the hereinafter-described devices.

Pivoted to or upon the platform C is a lever, G, which extends from the outer side of the car inward, downward, and again inward, as seen in fig. 3, so as to bring its inner end immediately beneath the link E, so that, by depressing the outer end of said lever, the operator, from the outside of the car and track, is enabled to raise and guide said link, and cause it to enter the mouth of the opposite coupling as the cars are pushed together.

A second lever, H, is also pivoted upon the platform C, in rear of the lever G, and has its inner end loosely connected to the upper end of the coupling-pin F, so that, by depressing or raising the outer end of said lever, said pin will be correspondingly raised from or dropped within the draw-bar.

By use of these devices the operator can stand without the track, and, without the slightest danger to his person, control the positions of the link and pin with as much certainty and ease as by the ordinary means.

It being desirable that the operator should be able to control the operations of the coupling devices from either side, and from the top of the cars, a second set of levers, G′ and H′, are pivoted upon the opposite side of the platform, and, extending inward, are loosely connected to or with the levers G and H, so that a vertical movement of the former will produce a corresponding movement of the latter.

Two rods, I and K, loosely attached at their lower ends to the levers G and H, and from thence extending upward through suitable bearings attached to the roof B, furnish a means whereby the operation of said levers and of their attachments, can be readily controlled from the roof.

The especial advantages possessed by my device are that, by its use, the person of the operator, being entirely outside of the cars, is not exposed to the danger of being crushed, and, thereby, he is enabled to control the operations of the coupling devices with greater ease and certainty.

Having thus fully set forth the nature and merits of my invention,

What I claim as new is—

The arrangement, upon a railway car, A, of the levers G and G′, the rod I, the link E, and the draw-head D, when the several parts are constructed as described and shown, and as and for the purpose set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 23d day of May, 1870.

RICHARD F. RANDOLPH, JR.

Witnesses:

HERSEY F. RANDOLPH,

JOHN M. DICKINSON.