

B. W. THURMAN.

CAR-COUPLING.

No. 175,524.

Patented March 28, 1876.

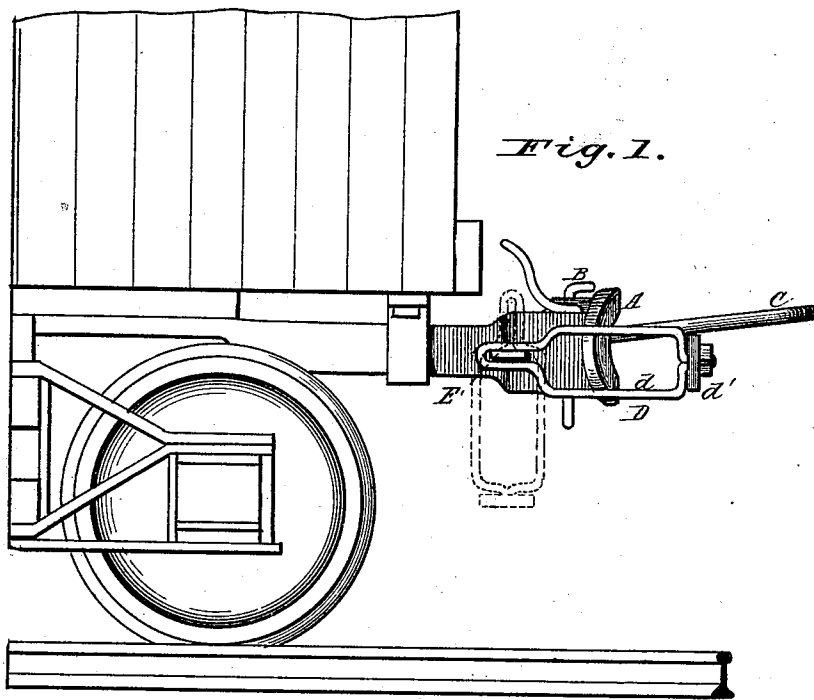


Fig. 1.

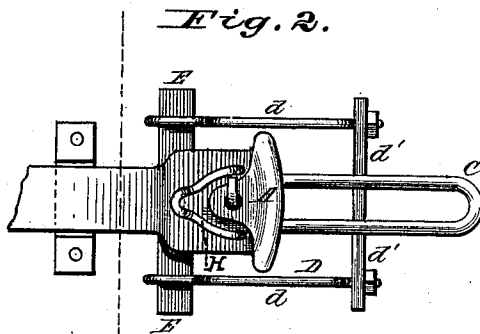


Fig. 2.

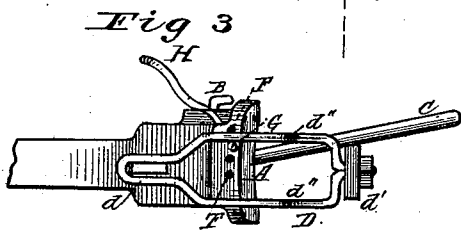


Fig. 3.

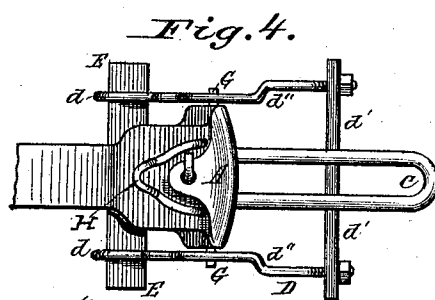


Fig. 4.

Attest:  
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# UNITED STATES PATENT OFFICE.

BENJAMIN W. THURMAN, OF GORDONSVILLE, VIRGINIA.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 175,524, dated March 28, 1876; application filed March 6, 1876.

*To all whom it may concern:*

Be it known that I, BENJAMIN W. THURMAN, of Gordonsville, in the county of Orange and State of Virginia, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification:

This invention relates to certain improvements in railroad-car couplings, its object being to provide an attachment for the same which will hold the coupling-link in one bumper in proper position to enter the opposite bumper, whether the cars are of the same or different heights, and which will be automatically thrown back when the two cars come together, and fall out of the way to release the coupling-link when secured in the opposite bumper.

My invention consists of a metallic frame secured loosely at each side to a rectangular rod or bar passing transversely through the bumper, or to rectangular projections on each side of the same, said frame being adapted to rest upon removable pins which may be placed at different heights at the sides of the bumper, for the purpose of adjusting the frame to hold the link at the desired elevation, and release it and fall out of the way when the two cars come together, as more fully hereinafter set forth.

In the drawing, Figure 1 is a side elevation of my invention applied to a railroad-car; Fig. 2, a plan view of the same; and Figs. 3 and 4, side elevation and plan view, respectively, of a modification of the same.

The letter A represents a car-bumper of ordinary construction, provided with a coupling-pin, B, and link C, as usual. D represents the frame for supporting the coupling-link, secured loosely upon a rectangular rod or bar, E, passing transversely through the bumper, or upon rectangular projections on each side of said bumper. The frame, in the present instance, consists of two peculiarly-shaped frames, *d d*, constructed of wrought-iron or other metallic bars, embracing the bumper A, and parallel with the same, united at their front ends by means of a transverse bar, *d'*, which forms the support for the coupling-link when the frame A is in proper position. The frames *d d* are contracted at their rear ends in such manner

that when drawn forward they will closely embrace the rectangular bar E, and thereby be held in proper position to hold the transverse bar *d'* in front of the bumper and directly under the coupling-link, in order to support the said link properly to enter the opposite bumper when the two cars are brought together. In order to adapt the attachment to be used with cars having their bumpers arranged at different heights I construct the frames as illustrated in the modification shown in Figs. 3 and 4, and provide on each side of the bumper a series of apertures, F F, in which the removable pins G G are adapted to be secured. The front ends of the frames *d d* are bent outwardly, as shown at *d'' d''*, forming an enlarged space between the two, for the purpose to be presently described. The remaining portions of the frame embrace the head of the bumper closely, so as to set over the pins G G when the said frames *d d* are drawn forward in such manner that the frames will be supported upon said pins, and the pins are of such length that when the frame D is thrown back the enlarged space between the front ends of frames *d d* will enable them to clear said pins, releasing the frame D and allowing it to drop out of the way.

The operation of my coupling device will be readily understood from the foregoing description.

In the modification shown in Figs. 1 and 2 the frame A is set under the link to place it in proper position for coupling by elevating it and drawing it forward until the contracted rear ends of the frames *d d* embrace the rectangular bar or projection E, and are held thereby in such position as to bring the transverse bar *d'* directly under the coupling-link C and hold it in position until the opposite car comes in place, when the frame D will be thrown backward, releasing the contracted rear ends of the frames *d d* from the rectangular bar or projections, allowing the attachment to swing under the bumper and out of the way.

In the modification shown in Figs. 3 and 4 the frame D is set to support the links by elevating it, as in the first instance, and then passing it backward until the enlarged space between the frames *d d* enables the said frame D to pass clear of the pins G G, which have

been previously placed in the proper apertures of the series F F to secure the desired elevation of the link. The frame A is then drawn forward, as before, until the frames *d d* come in position over the pins G G, by which the frame A is held until the bumper of the opposite car comes in place, by which said frame A is thrown back until it clears said pins, when it falls out of the way, as in the first instance.

The pins G G being removable and capable of being placed in any of the apertures F F, it is evident that the frame A may be arranged at any desired elevation to adapt the device to the coupling of cars of different heights, and the device may be employed with either the straight or bent coupling-links in ordinary use, as may be desired.

The letter H represents a curved frame, the ends of which are secured to the buffer at each side of the opening for the coupling-pin. Said frame curves backward at an angle, and is of such height that when the upper end of the coupling-pin is set in the upper end of the frame the lower end of the coupling-pin will set in the aperture for the same, the frame holding the coupling-pin in an inclined position, so that when the two buffers meet the pin will be thrown into a perpendicular position, and allow it to fall through the coupling-link and couple the cars.

It is evident that instead of being constructed in several pieces, as described, the frame D may be formed in one piece by casting, forging, or otherwise.

As constructed, my coupling device, after being set, obviates all necessity of the railroad

employés going between the cars to couple the same—an objection experienced in the ordinary couplings and attended with much danger—and, being simply an attachment which can be applied to any of the bumpers as ordinarily constructed, can be constructed and secured to the same at comparatively little expense, without alteration to the said bumpers or the coupling pins or links employed with the same.

What I claim, and desire to secure by Letters Patent, is—

1. In combination with a car-bumper, the frame D, embracing said bumper, contracted at its rear ends, and secured upon the rectangular bar or projection E, for supporting the coupling-link in position to enter the opposite bumper, and automatically releasing the same when the two cars meet, substantially as described.

2. In combination with the car-bumper, the frame A, secured to the rectangular bar or projection E, and the removable pins G G, said frame D being enlarged at its forward end for the purpose of clearing said pins when forced backward, substantially as described.

3. In combination with the buffer, the curved frame H, for holding the coupling-pin in position for coupling the cars, substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

BENJAMIN W. THURMAN.

Witnesses:

S. G. ATKINS,  
J. MAY.