

T. J. HUBBELL.
Car-Couplings.

No. 153,713.

Patented Aug. 4, 1874.

Fig. 1.

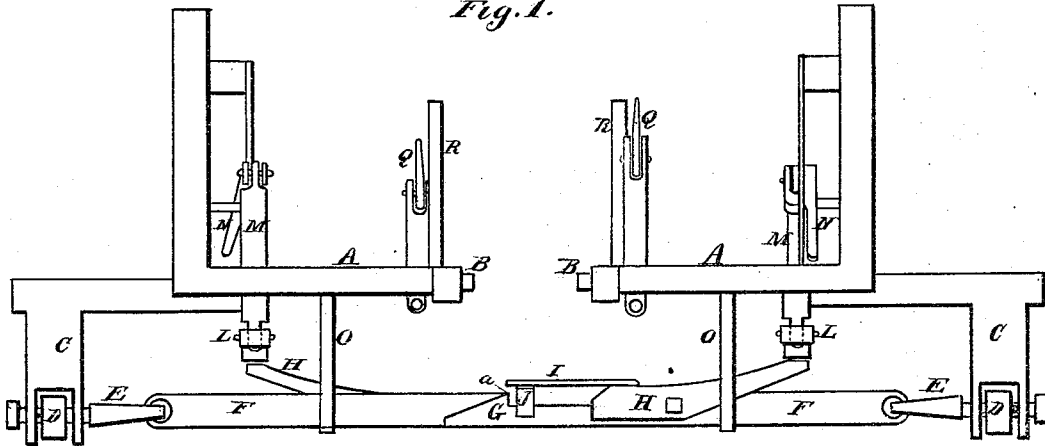


Fig. 2.

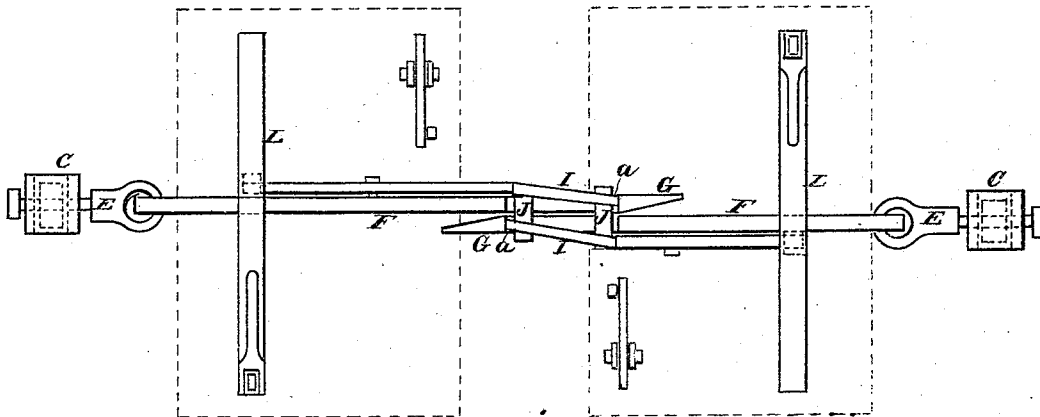
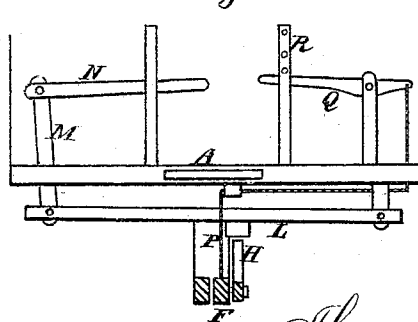


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS J. HUBBELL, OF YOUNTVILLE, CALIFORNIA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **153,713**, dated August 4, 1874; application filed March 13, 1874.

To all whom it may concern:

Be it known that I, THOMAS J. HUBBELL, of Yountville, Napa county, State of California, have invented a Car-Coupling; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

My invention relates to certain improvements in car-couplers, which improvements are designed to render the couplings self-acting, and also in the employment of certain levers, which are so connected as to enable me to uncouple the cars from the platform at any time without any delay or danger.

For a more complete explanation, reference is made to the accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is a plan view. Fig. 3 is an end view, showing the releasing-levers.

A is the platform of a car, having the elastic bumper B. From a central beam in the car-frame the short vertical post C descends, and has a transverse slot made in it to receive the elastic cushion D. Through this cushion and the beam C a stout eyebolt, E, passes, and to its front end is linked the draw-bar F. The strain upon this draw-bar is transmitted to the elastic cushion D by means of a pin passing through the bolt E behind the cushion, as shown.

The coupling device consists of a tapering or arrow head, G, formed upon the head of the draw-bar F, the back of this head forming an abrupt shoulder, *a*, and the draw-bar is cut away behind it so as to leave a depression.

Upon one side of the draw-bar is pivoted a lever-arm, H, an extension, I, of which reaches over far enough to rest upon the top of the shoulder *a*, thus extending over the depression behind the shoulder. An arm, J, extends out at right angles to the lever H, so as to lie across the depression in the bar F a short distance behind the shoulder *a*. A guard-bar, K, projects downward from the end of the arm J, as shown.

The operation of coupling will take place as follows: Two cars approaching the linked draw-

bars will be caused to pass each other by the inclined or arrow heads G. Each of these heads passes on until, passing beneath the arm J of the opposite bar, it raises it, and with it the extension I. This allows each arm J to pass beneath the extension I of the other lever, and fall into the depression behind the shoulder *a*, as shown at Fig. 2. The extensions I then close down over them, and retain them in place, when each arm J of the pivoted lever H will draw against the shoulder *a* of the opposite head G.

In order to uncouple the cars, a lever, L, extends over the end of the lever H, having a shoe which may press upon the rear end of this lever. The connecting-rod M passes up through the platform and attaches to the lever N, which is conveniently located upon some part of the platform. By raising the end of this lever the lever L will be depressed, and thus depress the end of the lever H. This raises the arm J and the extension I, and thus frees the heads G, so that the cars can be easily separated. As the draw-bar F is loosely connected with the bolt or bar E, it is manifest that it will move in any direction. The lateral motion is restricted by a guard, O. A cord or chain, P, is attached to the top of the draw-bar, and passes through the platform in some convenient place, being connected with the lever Q. By means of this lever the draw-bar can be raised or depressed, so as to couple with another upon a car of greater or less height. A post, R, with holes, and a pin, serve to hold the lever Q at the desired height.

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

1. The draw-bar F, with its inclined head G, and the lever H with its extension I and arm J, all combined to operate substantially as and for the purpose described.

2. The lever L, connecting-rod M, and the hand-lever N, in combination with the lever H, all constructed to operate substantially as described.

In witness whereof I hereunto set my hand and seal.

THOMAS JEFFERSON HUBBELL. [L. s.]

Witnesses:

JAS. P. McCULLOCH,
EDWIN CHAPEL.