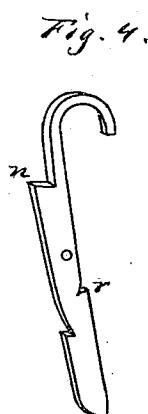
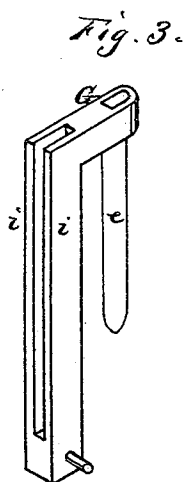
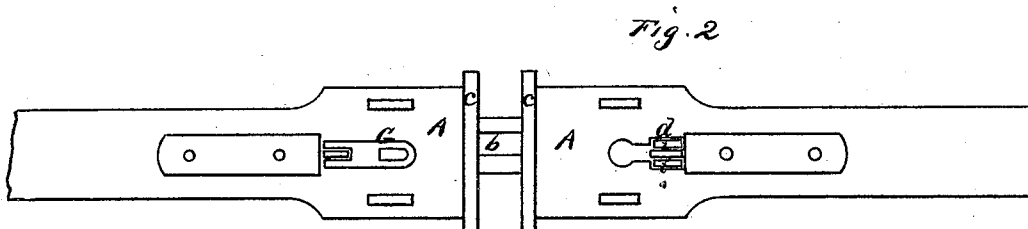
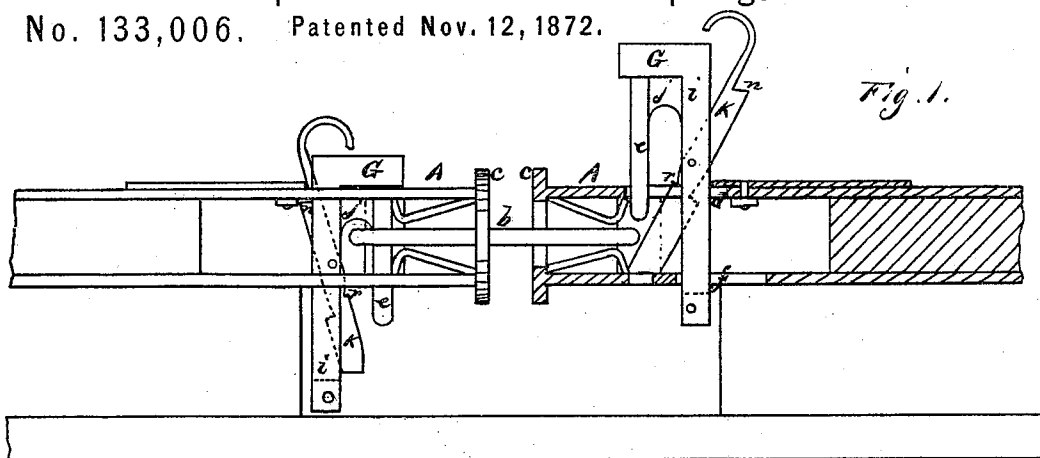


E. T. BARLOW.
Improvement in Car-Couplings.
 No. 133,006. Patented Nov. 12, 1872.



Witnesses

John L. Borne
C. M. Richardson

Inventor

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Attys

UNITED STATES PATENT OFFICE.

ELISHA T. BARLOW, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN CAR-COUPINGS.

Specification forming part of Letters Patent No. 133,006, dated November 12, 1872.

To all whom it may concern:

Be it known that I, ELISHA T. BARLOW, of San Francisco city and county, State of California, have invented an Improved Car-Coupling; and I do hereby declare the following description and accompanying drawing 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 or improvement without further invention or experiment.

My invention relates to an improved self-acting car-coupling by which two cars can be connected together without the presence of an attendant to enter the link as the bumpers come together, thus preventing many accidents. My improvement consists of a simple attachment which can be readily applied to the draw-heads at present in use, by which the pin or bolt which confines the ends of the link in the draw-head is held in the proper position to permit the entering link to automatically release it and allow it to drop through the link to the holding position.

In order to more fully illustrate and explain my invention, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side view; Fig. 2 is a plan; and Figs. 3 and 4 are detailed views of parts of the device.

Let A A represent the ordinary draw-heads, such as are usually employed for holding the connecting-link *b*. *c c* are the bumpers. In order to render the coupling of these two draw-heads automatic I make a square or other-shaped hole, *d*, through the upper side of the draw-head a short distance back of the hole through which the pin or bolt *e* passes. This opening is made midway between the edges of the upper side of the draw-head, and a narrow slot connects it with the pin-hole. Directly below the opening *d* I make another opening, *f*, through the under side of the draw-head, and from this opening a slot extends a short distance toward the rear. *G* is a solid piece of metal, from the rear end of which two thin parallel bars or strips, *i i*, depend. These strips are placed a short distance apart and their lower ends are connected solidly together. The two parallel strips, when thus secured together, will pass down through the

opening *d* and *f* in the draw-head, so that the piece of metal *G* will rest upon the upper side of the draw-head. The piece of metal *G* extends forward far enough to permit the upper end of the bolt *e* to be secured vertically in it, while the bolt passes down through its proper hole. A thin piece of metal, *j*, the lower end of which is made in the form of a semi-circle, extends downward from the piece of metal *G* and passes through the slot which connects the opening *d* and pin-hole. *k* is the trip-lever, by which the pin or bolt is operated. This lever is pivoted, at or near its middle, between the parallel plates or strips *i i*, its upper end extending above the metal block *G*, where it is curved, so as to be convenient to the hand in operating the attachment. The end of this lever below the draw-head is made heavier than the upper end by adding weight back of the pivot, so that when it is down the lower end will, by its gravity, swing toward the forward part of the draw-head. This lever has a shoulder at *n* on its rear edge, which, when the lever is down, comes directly under the upper side of the draw-bar, and another shoulder, *r*, on the front side, just under the lower side of the draw-head, so that the swinging forward of the lower end will cause these shoulders to latch under the upper and lower sides, and thus prevent the link-holder from being thrown up by the jarring or jumping of the cars. When the upper end of the lever is drawn forward, so as to release the latches *n* and *r* from the two draw-bars, the entire attachment can be lifted up so as to raise the bolt from the link *b* and clear the foot of the lever from the lower draw-bar, and then, by throwing the upper end of the lever toward the rear, the foot of the lever is caused to rest on the upper face of the lower draw-bar just back of the bolt. In this position the attachment is ready to couple automatically by the entering of the links—that is, when the link enters through the bumper, its end will strike the foot of the lever, and the force of the contact will drive it back until it is in line with the strips *i i*, when the entire attachment will drop, carrying the pin with it through the link, and latch itself in the manner above described. When in this position the semicircular part of the plate *j* will bear upon the bend of the link, so that when one end of the link is detached

and unsupported it will be held in a horizontal position ready to enter the opposite bumper by the weight of the attachment.

By this means I provide a simple and cheap attachment for holding and operating the bolt *c* of a car-coupling which can readily be attached to the draw-head now in use, and by which I obviate the necessity of an attendant in connecting the cars of a train, as the bolt-holder attachment can be set and left to make its own connection.

When the bolt wears out or requires to be renewed from any cause it can be simply driven out of the block *G* and another one driven in.

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

The link-holder *G*, constructed as described, having the curved plate *j*, in combination with the lever *k* and draw-head *A*, as described.

In witness whereof I hereunto set my hand and seal.

ELISHA T. BARLOW. [L. S.]

Witnesses:

J. L. BOONE,

C. M. RICHARDSON.