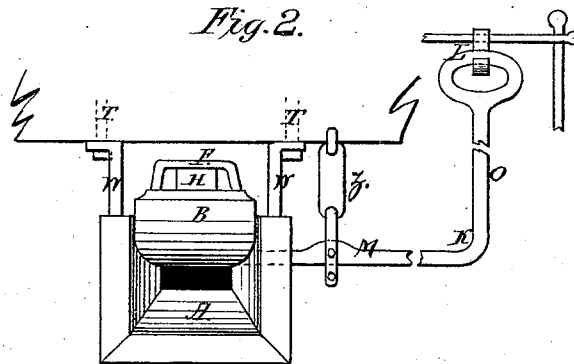
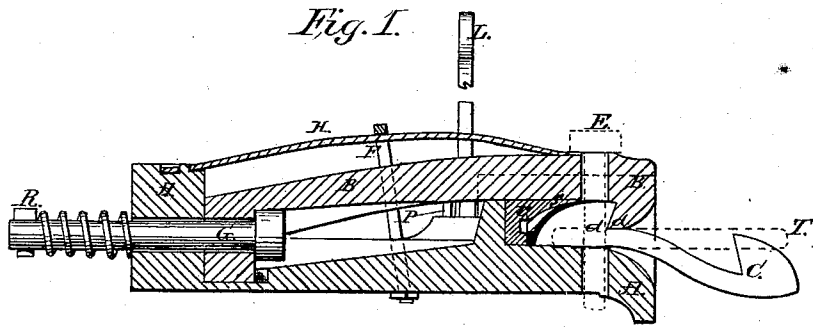


B. B. SHERFY.
Car-Coupling.

No. 159,850.

Patented Feb. 16, 1875.



Witnesses:
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UNITED STATES PATENT OFFICE.

BENJAMIN B. SHERFY, OF KNOXVILLE, TENNESSEE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **159,850**, dated February 16, 1875; application filed January 11, 1875.

To all whom it may concern :

Be it known that I, BENJAMIN B. SHERFY, of Knoxville, Knox county and State of Tennessee, have invented an Improvement in Railroad-Car Couplings, of which the following is a specification:

My invention consists in a novel construction and arrangement of a clamping-jaw, in combination with a coiled spring and elastic buffer, and also in other devices, all of which will be more fully explained hereafter.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of my improvement in railroad-car couplings. Fig. 2 is a front view of the same. Fig. 3 is a view of my draw-bar.

In the construction of my improved railroad-car coupling the buffer A is made elastic, in the usual way, by means of the coiled spring R pressing against the rear end of the buffer or piece A, Fig. 1. A bolt, G, passes through the rear end of the buffer A, and also through the rear end of the clamping-jaw B, which is provided with a catch to seize the coupling-bar C, as shown in Fig. 1.

By this arrangement the coiled spring has a twofold action—first, to make the buffer elastic; and, second, to clamp the jaw B down upon the draw-bar C, and thus prevent the draw-bar from easily getting out or uncoupling.

An additional plate-spring, H, is placed so as to firmly clamp the jaw B down upon the draw-bar, thus giving a double guard against accidents by uncoupling, except when desired.

In order to uncouple the cars I employ an elbow-lever, K, with a horizontal arm, M, and an upright arm, O, and also with a fulcrum or pivot in the horizontal arm, supported by a link, Z, upon the car-frame, or in any other suitable manner.

By means of this lever the operator never exposes his hand, so as to be caught, in uncoupling the cars, as a slight tilt of the lever, by placing the hand on the upper end of the arm O, will raise the jaw B, and release the draw-bar, thus cutting loose the cars.

In connection with this jaw B I employ a draw-bar of novel and very important construction, in order to allow the draw-bar to slip out the moment a car is overset from the track.

Two forms of this draw-bar are seen in Fig. 3. In the straight bar at the right hand it will be seen that the upper side of the main part of the draw-bar is curved upward toward each end or catch, so as to keep the jaw B considerably elevated. Also, the stem of the draw-bar is made very wide horizontally. Consequently, when this draw-bar turns under the jaw B, or the car and jaw turn upon the draw-bar, the catch is released, and the cars cut loose.

Therefore, if one car tips over, the next car is never dragged off the track, as often happens with defective couplings.

The crooked draw-bar on the left, Fig. 3, is intended for use in connecting cars of different heights; and this draw-bar works with jaw B on the same principle as above described in uncoupling the cars when one turns over.

The ordinary coupling-pin E and link T may, when necessary, be used with my coupling, as shown in dotted lines, Fig. 1.

A very important feature of my invention is the action of the jaw B in always holding the draw-bar in proper position to meet and enter another approaching coupling, as seen in Fig. 1; or, in other words, the action of the jaw B raises the projecting or free end of the draw-bar. This is due in part to the action of the spring; but it will be seen that the jaw B is made with a roof, s, to fit the upper curve of head or catch of the draw-bar. A small slide, V, is placed in this roof, with a similar curved surface to fit the curve of the head of the draw-bar C, as shown in Fig. 4. The action of this slide V is to hold up the pin E until the link T is pushed in, and, striking the slide, pushes it back, and lets the pin drop to couple the cars.

Having described my invention, I claim—

1. The clamping-jaw B and buffer A, in combination with the coiled spring R and bolt G, passing through the heel of both the buffer and the jaw, substantially as and for the purposes set forth.

2. In combination with the jaw B, the slide V, for the purpose set forth.

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