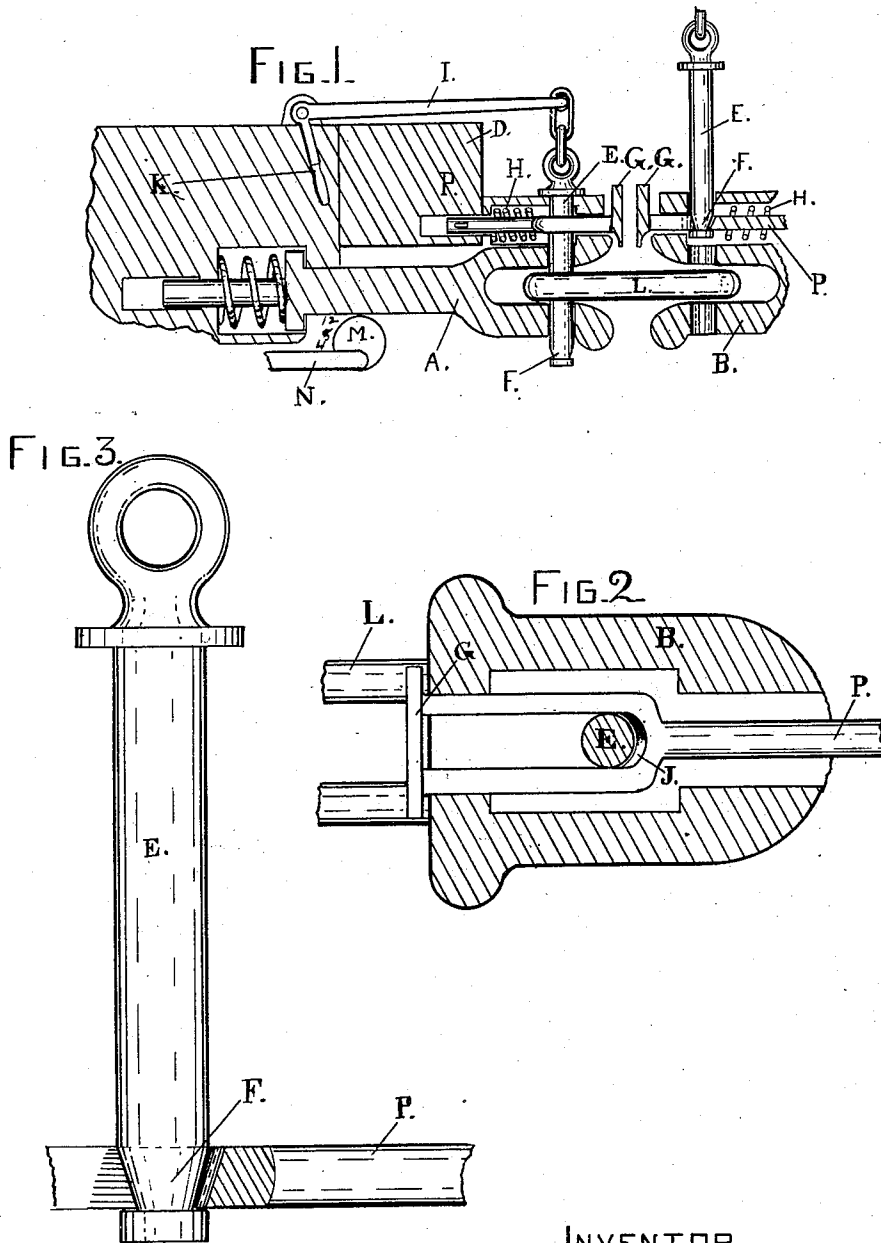


(No Model.)

I. H. BRADSHAW.
CAR COUPLING.

No. 332,870.

Patented Dec. 22, 1885.



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UNITED STATES PATENT OFFICE.

IRA H. BRADSHAW, OF SACRAMENTO, CALIFORNIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 332,870, dated December 22, 1885.

Application filed April 29, 1884. Serial No. 129,783. (No model.)

To all whom it may concern:

Be it known that I, IRA H. BRADSHAW, a citizen of the United States, residing at Sacramento, county of Sacramento, and State of California, have invented a new and useful Car-Coupling, of which the following is a specification.

My invention relates to that class of car-couplings where the ordinary link is employed. It will be readily understood by reference to the accompanying drawings and the letters marked thereon.

Figure 1 is a longitudinal sectional view showing the draw-head A partly in section, the draw-head B in section broken off, the draw-head spring C, the car-timbers D, the coupling-pin E, the coupling-pin tripper and catch G, the guide-bar for the tripper and catch, P, the catch-notch F, the tripper and catch-spring H, the uncoupling-lever I, the lever arm or handle K, the coupling-link L, the draw-head lifting and adjusting cam M, and the cam-lever N. Fig. 2 is a plan view showing the tripper and catch G with the guide-bar P broken off, and the outline of broken parts of the draw-head B and link L; and Fig. 3 is an elevation showing the coupling-pin E with catch-notch F, and a broken part of the tripper and catch G, with bevel J and guide-bar P.

The following is the construction of the same: I construct the draw-head similarly to the ordinary draw-head used on freight-cars, with the addition of the tripper and catch G, which I construct of metal or other suitable material. I form the coupling-pin E in the same form of the coupling-pin in general use, except that I form the annular groove, which I call the "catch-notch," with the same bevel or incline as that of the catch J of the tripper G, so as to form a seat for the same in holding the bolt E up while the car is uncoupled. I construct the lever I and lever-handle K of any suitable material to raise the bolt E. I construct the tripper and catch G of metal, and give the catch J a smooth incline, conforming to the catch-notch F in the bolt E. I employ any reliable strong spring, H, to throw the catch J into the notch F, and hold the bolt up when it is raised. I attach the draw-head to the timbers in any well-known manner to allow it to drop down to the level of the draw-head of a loaded car, or, in other words, to allow its adjustment to the car to which it is to couple.

I have shown a cam, M, and cam-lever N under the draw-head A, and indicating-figures 4, 8, and 12, arranged annularly with the pivot of the lever N, as will be more fully shown.

The following is the operation of my improved car-coupling: The link L being in the position shown in the draw-head A in Fig. 1, and the bolt E down through the link L, holds the same, as shown, as the cars are brought together, bringing the trippers G together, forcing them back upon the springs H and the catch J out of the notch or inclined annular groove F, thus freeing the coupling-pin E, which drops down through the link L, thus coupling the cars together. In uncoupling the coupling-pin E is raised out by means of the lever I and lever-handle K, or by any well-known means, until the annular inclined groove or notch F reaches the catch J of the tripper G, and the spring H forces the catch J into the same, where the bolt is thus held from rising any higher or dropping down.

When two cars having my improved couplers are to be coupled together, the one loaded, and consequently settled down upon its springs, while the other is light and stands higher, and the draw-head of the light car consequently higher than that of the loaded car, then the cam M is operated by the lever N, and if there are four tons difference between the loads in the two cars, then the lever N upon the light car is raised to the figure 4. If the difference be eight tons, then to the figure 8, and if twelve tons to the figure 12, thus lowering the draw-head of the light car to the level of the draw-head of the loaded car. By this means much of the difficulty of coupling cars differently loaded is obviated.

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

The combination, with the draw-head A, of the frame G, having the guide-rod P, the spring H thereon, the catch J, the coupling-pin E, having the notch at its lower end, the lever I, connected with the coupling-pin, and the hand-lever K, to which the lever I is connected, as set forth.

IRA H. BRADSHAW.

Witnesses:

JOHN H. REDSTONE,
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