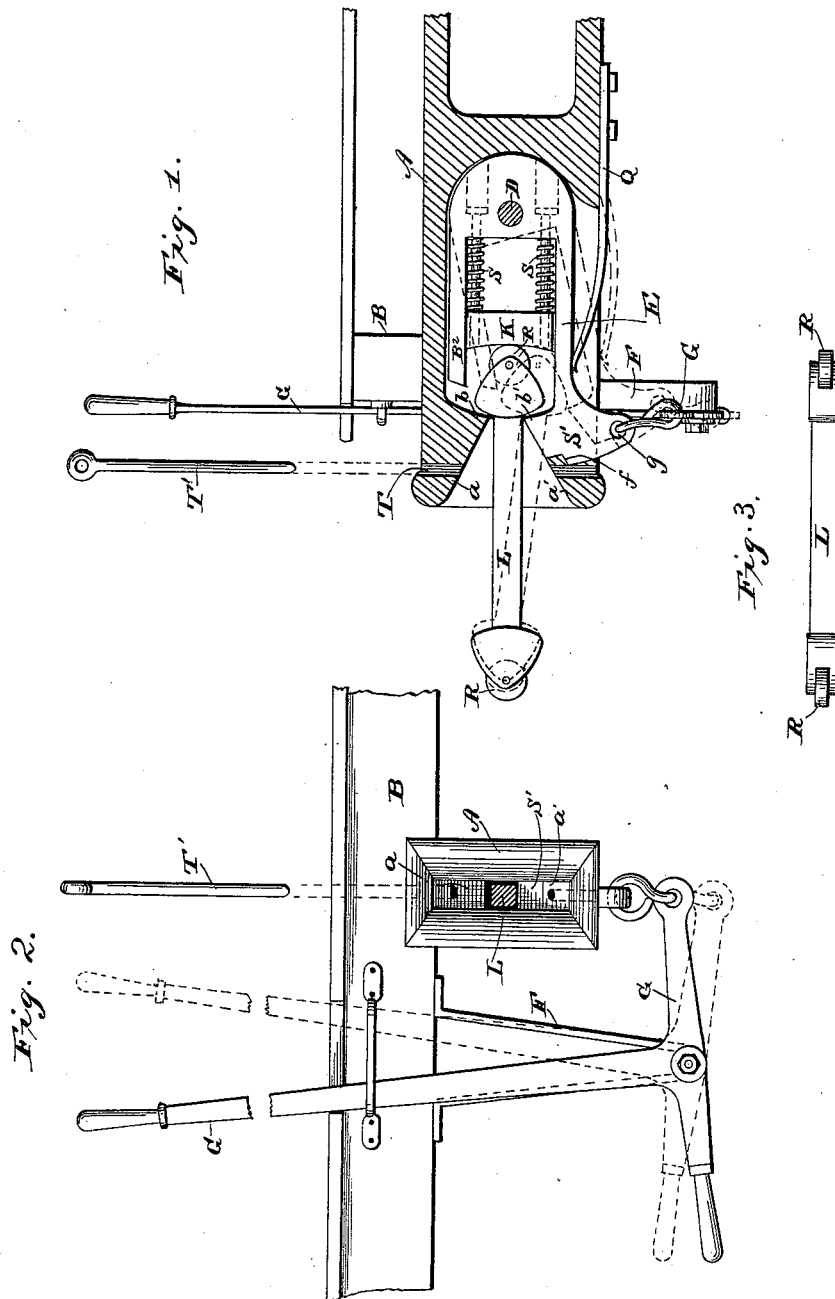


(No Model.)

P. A. JUGE.  
CAR COUPLING.

No. 386,203.

Patented July 17, 1888.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

PIERRE ADOLPHE JUGE, OF NAPOLEONVILLE, LOUISIANA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 386,203, dated July 17, 1888.

Application filed April 10, 1888. Serial No. 270,195. (No model.)

*To all whom it may concern:*

Be it known that I, PIERRE ADOLPHE JUGE, of Napoleonville, in the parish of Assumption and State of Louisiana, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

My present invention has for its object to provide an improved car-coupling, not liable to be disarranged by the jars and strains to which it is subjected, and which shall be entirely automatic in its action.

To these ends the invention consists in certain novel features of construction and combinations and arrangements of parts, to be hereinafter described, and pointed out particularly in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of a coupling constructed in accordance with my invention. Fig. 2 is a front elevation of the same, and Fig. 3 is an edge view of the preferred coupling-link.

Similar letters of reference in the several figures indicate the same parts.

The draw-bar A is of cast-iron, as usual, and is secured in place beneath the car-platform B in the usual or any preferred manner. It is preferably somewhat taller and narrower than the ordinary draw-bar, the mouth being a bell-mouth and provided with relatively abrupt inclines *a a'* at top and bottom, the incline *a* extending inward and forming a shoulder, *b*, against which one projection of the link-head rests, as will be presently explained. Internally the draw-bar is hollowed out in the form of a relatively large narrow cavity of proper shape to accommodate the movable jaw E, the rear portion of the cavity and jaw being semi-circular, as shown in Fig. 1.

The movable jaw E consists of a hook-shaped portion, *S'*, extending forward and forming a shoulder, *b'*, corresponding to shoulder *b*, and an overhanging substantially straight portion, *B'*, both said hook and overhanging portions uniting in a heavy base portion mounted on a pivot, D, the rear semicircular surface taking its bearing on the correspondingly-shaped por-

tion of the recess, but free to swing downward when occasion requires.

Located intermediate and taking its bearings on the hook and overhanging portion of the movable jaw is a sliding block, K, held forward by the pressure of two springs, S S, surrounding pins screwing into said block and passing back into the base of the movable jaw. (See Fig. 1.)

The hook portion E' has its forward face formed at such an angle as to be a continuation of the lower incline in the bell-mouth when the hook is closed, and is provided with a stop or projection, *f*, engaging a corresponding stop or projection on the draw-bar to limit the upward movement of the hook. On the under side it has an aperture, *g*, in which a link takes its bearings, said link being connected to a T-shaped lever, G, pivoting in a bearing on bracket F, secured to the car-platform. The longer arm of the lever extends upward and may be operated from the top of the car or the platform, while the shorter arm extends out in convenient position to be operated from the side of the car.

Bolted under the draw-bar is a spring, Q, the forward end of which bears on the movable jaw and holds it up in proper position, but allows it to be drawn down by the lever G or be forced down by the entrance of a link.

The link preferably employed in connection with this coupling is flat and has arrow-heads or triangular-shaped ends, anti-friction rollers R R being secured within the extreme ends to facilitate its entrance into the bell-mouth and to prevent wear on the sliding block K or end of the link.

The operation will now be readily understood. The link L being held by one coupler, as shown in Fig. 1, will, when two cars are brought together, enter the bell-mouth of the opposite coupler, ride up the incline on the movable jaw, and force the same down until it enters the space back of the shoulders *b b'*. In uncoupling, the movable jaw is drawn down by the lever G, and the overhanging portion striking the upper side of the link forces it down below the shoulder *b* and allows it to be withdrawn.

The portion of the draw-bar forward of the shoulders *b b'* is made of such length that when a link is inserted and pressed back the

faces of the draw-bar will meet before the strain is brought to bear on the link, the said link being, however, pressed forward by the springs S with sufficient force to press the movable jaw in the opposite draw-bar down.

In order to permit the coupler to be used in connection with the ordinary link, I provide a hole, T, in the bell-mouth and an ordinary pin, T', for co-operation therewith, as will be readily understood.

Having thus described my invention, what I claim as new is—

1. In a car-coupling, the combination, with the draw-bar recessed on the under side and having the bell-mouth and the shoulder for engaging the link, of the movable jaw pivoted in said recess and having the forwardly extending portion forming the other shoulder for engaging the link, the overhanging portion for disengaging the link when the movable jaw is depressed, and the spring for holding said jaw up in operative position, substantially as described.

2. In a car-coupling, the combination, with the draw-bar recessed on the under side and having the bell-mouth, as described, of the movable jaw pivoted in said recess and held

up in operative position by spring-pressure, and having the forwardly-extending hook and the overhanging portion and the spring-pressed block moving in said head for keeping the link pressed forward, as and for the purpose set forth.

3. In a car-coupling, the combination, with the draw-bar recessed on the under side and having the bell-shaped mouth, of the movable jaw pivoted in said recess, consisting of the hook portion forming one of the inclines of the bell-mouth and having the shoulder or stop *f* thereon, the overhanging portion and spring-pressed sliding block between said hook and overhanging portion, and the lever for operating said movable jaw against the pressure of the spring which holds it in operative position, substantially as described.

4. The combination, with a car-coupling, substantially as described, of a link for co-operating therewith, having the enlarged ends and the anti-friction roller mounted therein, as set forth.

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Witnesses:

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