(No Model.)

G. C. LEWIS.

CAR COUPLING.

No. 590,896. Patented Sept. 28, 1897.

Fig. 1.

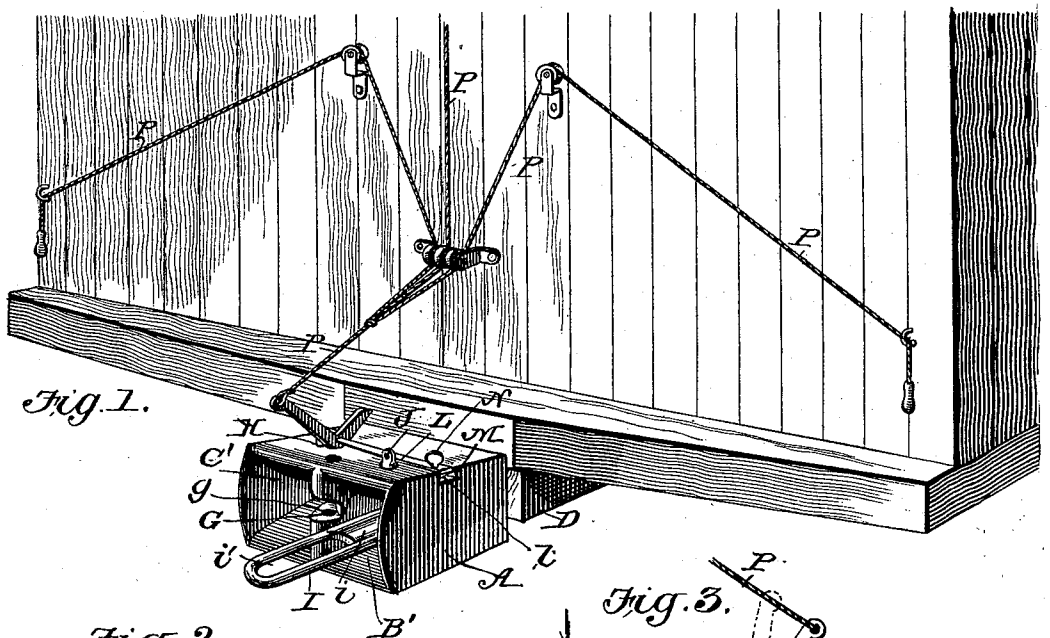


Fig. 2.

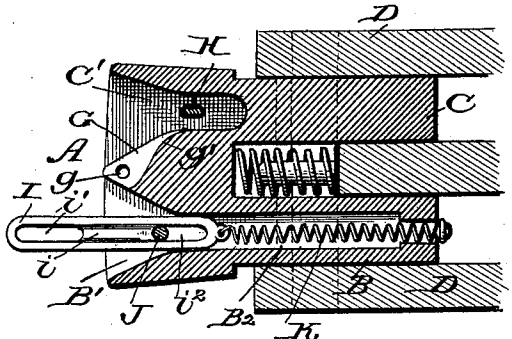


Fig. 3.

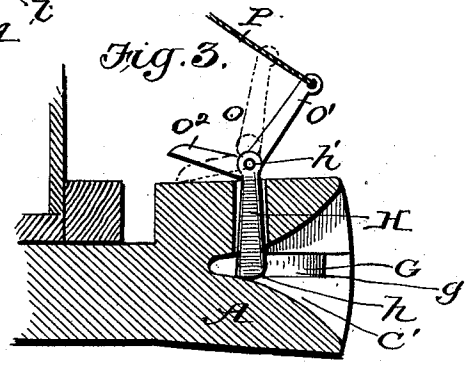


Fig. 4.

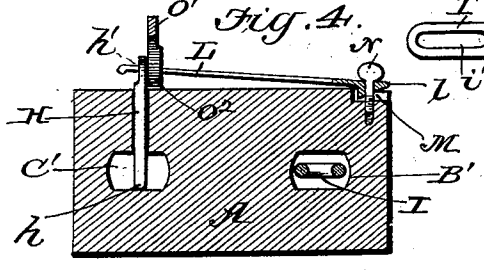
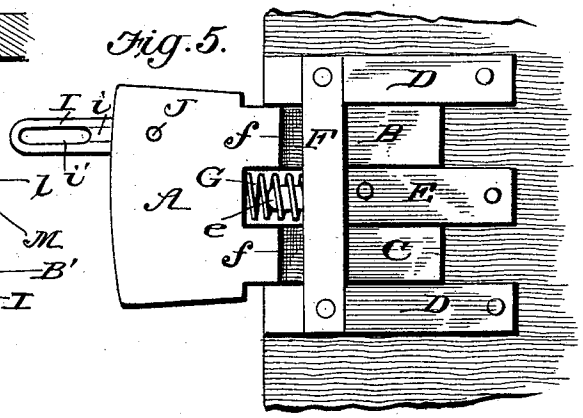


Fig. 5.



WITNESSES:

Jos. A. Ryan

P. B. Turpin.

INVENTOR

Gaston C. Lewis

BY Munn & Co.

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GASTON C. LEWIS, OF CRESCENT CITY, FLORIDA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 590,896, dated September 28, 1897.

Application filed May 18, 1897. Serial No. 637,076. (No model.)

To all whom it may concern:

Be it known that I, GASTON C. LEWIS, residing at Crescent City, in the county of Putnam and State of Florida, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention is an improved car-coupling; and it consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of one end of a car provided with my improvements. Fig. 2 is a horizontal section, and Fig. 3 is a vertical longitudinal section, of the coupling. Fig. 4 is a cross-section of the coupling, and Fig. 5 is a bottom plan view of the coupling.

The draw-head A is provided with the two rearwardly-extended branches B and C, which fit between the beams D D and E and slide back and forth, being limited by the cross-beam F, operating in the recess *f* and actuated by the coil-spring G on the stem *e* at the front end of the beam E, which forms a spring-buffer for the draw-head. This construction permits ample back-and-forth play of the draw-head, as well as an up-and-down movement at the free end thereof, which with the lateral play of the links furnishes a freedom of the coupling which prevents one car from being dragged off the track when the car to which it is coupled is derailed. At its front end the draw-head has two mortises B′ and C′, corresponding to and in line with the branches B and C. The mortise B′ receives the coupling-link, while the mortise C′ receives the coupling-pin, and the wall between these mortises is formed with a slot or seat G for the ordinary coupling-link, with a pin-hole *g* for use when the improved draw-head is coupled with a car equipped with the ordinary draw-head. The rear wall of the slot G inclines off at *g′* toward the pin-mortise C′, so an entering link of an improved coupling will, if it should perchance strike in slot G, glance off into the pin-mortise. The pin H is beveled at its lower end at *h*, so the entering link may slip beneath and into engagement with it, and this pin is actuated into coupled position and released by the means presently described.

The link I is designed to be held permanently in the draw-head, and is formed with a division at *i*, forming a main loop *i′* at its outer end to enter the approaching draw-head and to engage with the pin thereof, and with an inner loop i^2 for the pin J, which holds the link out in position for use. Now this pin is retracted when it is desired to couple the improved draw-head with an ordinary draw-head, and I effect this by extending the link-mortise B′ inward, forming a recess or chamber B^2 in the branch B, into which the link I may be drawn by a spring K when the pin J is withdrawn. This puts the link out of the way, and the pin J may be utilized to secure the link of the ordinary coupler by fitting such pin J in the hole *g*. When it is again desired to use the link, it may be drawn forward and the pin J reapplied to hold it in place. The coupling-pin H is actuated by the spring-bar L, and has an eye or opening *h′* at its upper end through which the free end of the spring protrudes, so the bar will operate to lift as well as depress the pin.

At one end the bar L is held to the draw-head, being provided at such end with a dovetail head *l*, fitting in a dovetail recess M in the draw-head, and a screw N turns through the spring-bar and threads into the draw-head and may be set to adjust the tension of the spring-bar.

To lift the pin, I provide a tilting lifting device O, having arms O′ O^2 and pivoted at the juncture of such arms on the spring-bar adjacent to the pin H. The operating cords or chains P connect with the arm O′ and extend to the sides and top of the car, while the arm O^2 bears on the draw-head, and as the device O is tilted the pin will rise and fall as desired.

In operation the coupling is automatically effected, the links of each draw-head entering the pin-mortise of the other and slipping under the pin into coupled engagement, in which they will be securely held. At the same time the coupling may be easily released by tilting the double-armed device O, which may be effected by the means shown or in other desired manner without involving the necessity of any one going between the cars.

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

1. A coupling comprising the draw-head having a link-mortise, the link having an outer loop i' and an inner loop i^2, a spring for retracting said link from position for use, and a pin operating in the inner loop for the purpose of keeping the link extended in position for use, substantially as described.

2. A draw-head having a longitudinal channel, a link retractable in said channel, a spring for retracting the said link and means independent of the meeting draw-head for holding said link extended against the action of the spring in position for use, substantially as described.

3. A car-coupling comprising the draw-head, the coupling-pin, the spring-bar held at one end to the draw-head and engaging the pin at its other end and the tilting device pivoted on said spring-bar and adapted to lift the pin, substantially as described.

4. A car-coupling comprising the draw-head, having the two link-mortises provided in one mortise with a coupling-link and in the other mortise with a coupling-pin, the spring for retracting the link and the pin for holding said link in operative position, the wall between the mortises being provided with a link-seat inclining off to the pin-mortise, the spring-bar for operating the coupling-pin, and the double-armed tilting pin-releasing device pivoted on the spring-bar and arranged when tilted to release the coupling-pin, substantially as described.

5. A car-coupling comprising the draw-head, the coupling-pin, the spring-bar held at one end to the draw-head and engaging at its other end with the pin and the screw for adjusting the tension of said spring-bar, substantially as described.

6. In a car-coupling the combination of the draw-head having a dovetail socket, the coupling-pin, the pin-actuating spring-bar having a dovetail head fitting the socket in the draw-head and the set-screw for adjusting the tension of said spring-bar, substantially as described.

GASTON C. LEWIS.

Witnesses:
SOLON C. KEMON,
PERRY B. TURPIN.