

(No Model.)

W. L. WAIT.
CAR COUPLER.

No. 341,190.

Patented May 4, 1886.

Fig. 1.

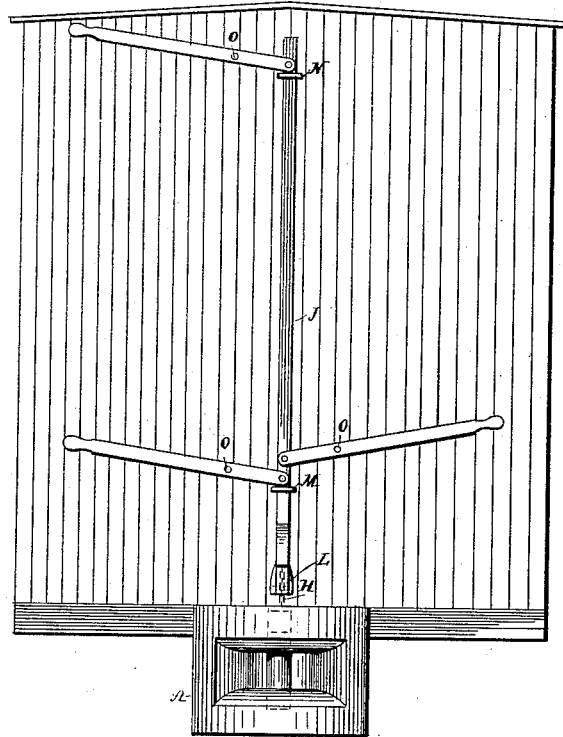


Fig. 2.

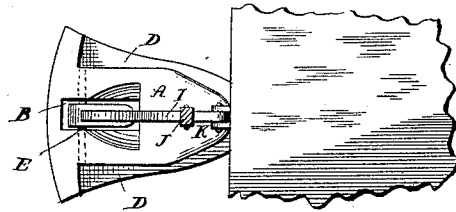
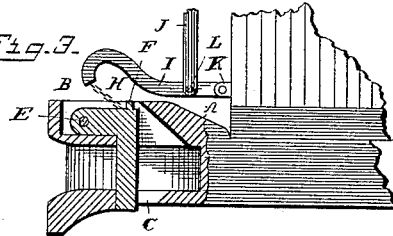


Fig. 3.



WITNESSES

Edwin L. Bradford
James M. Duwaut

INVENTOR

W. L. Wait
By *Toulmin & Semmes*
his Attorneys

UNITED STATES PATENT OFFICE.

WASHINGTON L. WAIT, OF GREENVILLE, SOUTH CAROLINA.

CAR-COUPLER.

SPECIFICATION forming part of Letters Patent No. 341,190, dated May 4, 1886.

Application filed March 9, 1886. Serial No. 194,531. (No model.)

To all whom it may concern:

Be it known that I, WASHINGTON L. WAIT, a citizen of the United States, residing at Greenville, in the county of Greenville and State of South Carolina, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in car-couplers; and it has for its object to provide a car-coupler with a pin pivoted to the draw-head some distance in advance of its vertical portion, and to combine therewith a pivoted lever which stands over the same and is connected thereto, and a connecting-rod and actuating-levers.

In the accompanying drawings, forming a part of this specification, and on which similar letters of reference indicate the same or corresponding features, Figure 1 represents an end elevation of a car with my improved coupler attached thereto. Fig. 2 is a plan view of my coupler detached from the car, and Fig. 3 is a horizontal vertical sectional view thereof.

The letter A designates the draw-head of the ordinary form, provided on its upper side with a longitudinal slot, B, and in its lower portion with an aperture, C, in which the lower end of the pin rests. The upper front portion of the draw-head is cut away, as at D, and its forward end is provided with apertures, through which the rod E, which supports the pin in position, extends.

It will be observed that the upper half of the draw-head is recessed or cut away from its upper to its lower edge in a rearward direction, so as to admit of the elevation of the pin above the link when it swings upon its rod or pivot E.

As more clearly seen in Fig. 3, the pin is of rectangular form, slightly longer in a vertical than in a horizontal direction, and is provided with a lug, F, having an eye, to which is secured a chain, H.

Just in the rear of the lug F is a lever, I, its forward end connecting with the chain H, and its rear portion being pivotally secured to the end of the car at K. It is also pivotally connected with the rod J at L. This rod extends from the top of the car to the draw-head, being held to the car by the staples M and N, and it is provided above M with two levers,

one extending to either side of the car, and above N with a single lever running along the front upper edge of the car. These levers are pivotally fastened to the car at O O O, and are so weighted and adjusted that the pin will be normally held down or in a locked position; but when the free end of any of the levers is depressed the upward movement of the rod J is transmitted to the lever I, and through the chain H to the pin, which is thereby elevated and the cars uncoupled.

It will be noticed that the bar which supports the pin can be removed without difficulty, should it be desired to entirely remove the pin from the coupler.

I am aware that draw-heads have heretofore been constructed whose interior is configured somewhat similarly to mine, the pin in such instance, however, being supported on trunnions about its center. Now, when the pin is tripped by the link entering the draw-head, it swings longitudinally nearly its whole length before it rises sufficiently to fall in the slot of the link. There is therefore considerable play or lost motion between the cars—namely, the distance from the rear wall of the coupler to the wall against which the pin abuts. This is entirely too much, and would make the coupler useless in practice. To overcome this difficulty, a link of peculiar construction must be resorted to—namely, a link whose end is for a portion of its distance solid, so that the pin cannot enter the slot in the link until it shall have passed over the solid portion first. I overcome this difficulty entirely by placing the pivotal point of the pin considerably forward of the center thereof, so that it swings in a vertical rather than a longitudinal plane, and the distance is thus reduced so as to leave only that amount of slack or play between the cars which is necessary.

I am aware that a pin of rectangular form is not broadly new, and I do not therefore lay claim to such, broadly, as my invention.

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

In a car-coupler, the combination, with a draw-head having a vertical slot and a rectangular pin pivoted therein, the pivotal point being near its forward end, of a lever pivoted

to the forward part of the car, extending over
the pin and flexibly connected thereto, an up-
right rod connected with said lever, and hand-
levers pivotally connected with the end of the
5 car and with said upright rod, whereby a de-
pression of either of said hand-levers will ele-
vate the pin.

In testimony whereof I affix my signature in
presence of two witnesses.

WASHINGTON L. WAIT.

Witnesses:

BENJ. A. MORGAN,
THOS. K. EARLE.