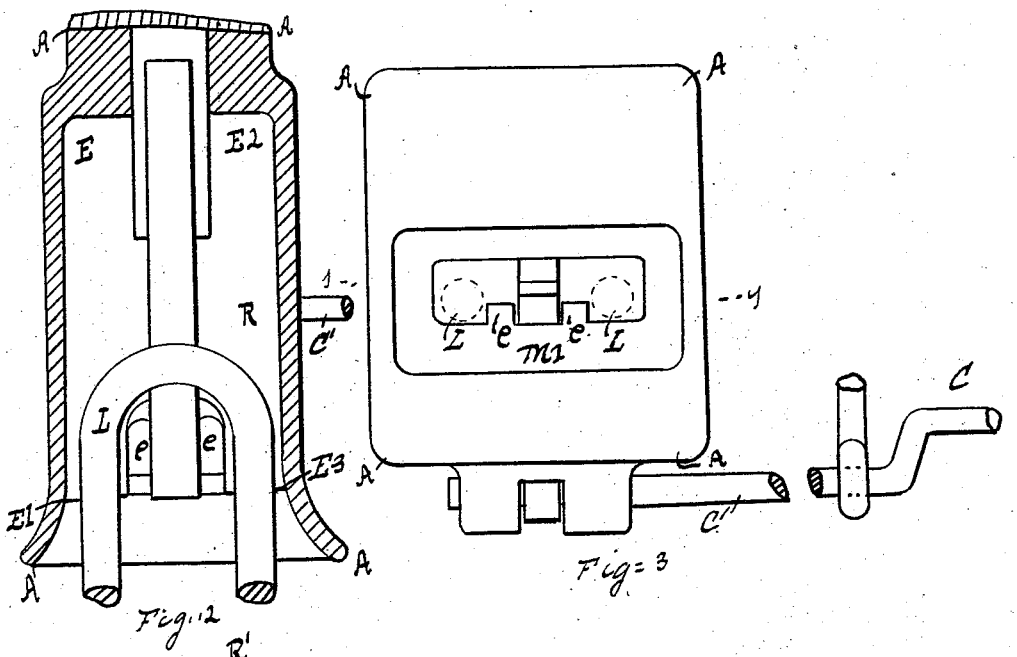
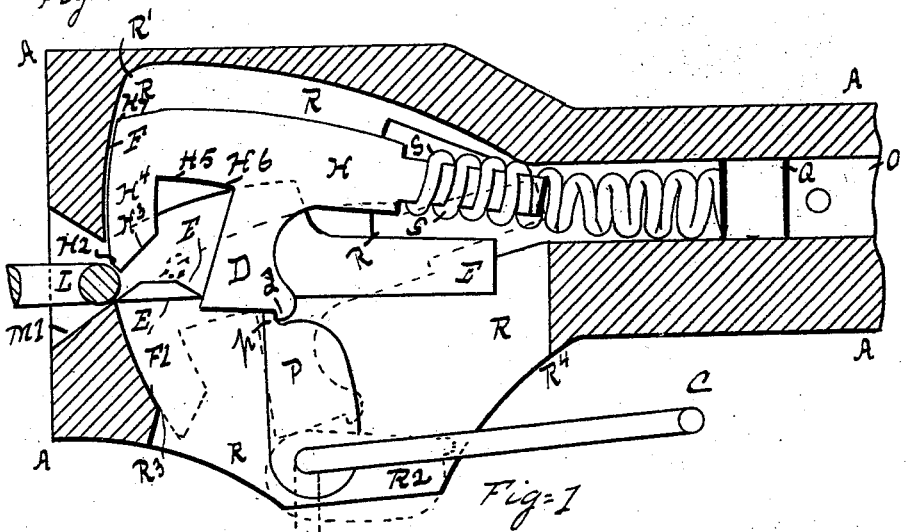
(No Model.)

L. O. BEEBEE.

CAR COUPLING.

No. 525,327. Patented Sept. 4, 1894.





Witnesses

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UNITED STATES PATENT OFFICE.

LIVINGSTON O. BEEBEE, OF JACKSON, MICHIGAN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 525,327, dated September 4, 1894.

Application filed February 9, 1894. Serial No. 499,611. (No model.)

To all whom it may concern:

Be it known that I, LIVINGSTON O. BEEBEE, of Jackson, in the county of Jackson and State of Michigan, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention relates to car-couplers and consists in the improvements hereinafter specified and pointed out in the claims.

Referring to the accompanying drawings—Figure 1, is a longitudinal central section through the center of the drawbar. Fig. 2, is a horizontal section on the line *g*, *g*, Fig. 3, and Fig. 3, is a front elevation.

The same reference letter refers to the same part in all the views.

A, A, A, A, is the forward portion of a railway-car draw-bar. The draw-bar is secured to the car in the ordinary way and provided with the usual spring to take the concussion of colliding. The draw-bar A, A, A, A, is provided with a recess R, R, R, R, the vertical sides of which are parallel, said recess is of sufficient size to permit the coupling-hook H, to move easily therein. The recess R, R, R, R, is open at the under side from R^3, to R^4, to permit the insertion of the coupling hook. The spring S, is inserted through the longitudinal aperture O, from the rear and a plug Q, is inserted and secured at the proper place to receive the thrust of the spring S. The aperture O, is channeled out wider perpendicularly at the end toward the hook to allow the hook with the spring surrounding its shank to travel in the circular arc R′, R^3, of the recess R, R, R, R. The pawl P, is provided with a detent, *p*, which engages with a tooth *d*, on the arm D, of the hook H. The hook H, and pawl P, are, say one and three-eighths inches thick sufficient to have strength in proper proportion to the width of its pin part H^4, which is, say one and one-half inches thick.

E, E′, and E^2, E^3, are horizontal ledges, both in the same plane, together forming a floor for the coupling-link to rest upon.

e, *e*, form a rest for the end of the link while drawing, &c., as described farther on.

C, is a crank which drops by its weight perpendicularly, when the link L, enters the mouth of the draw-bar far enough to raise the hook sufficiently to release the detents *d*, and *p*, from engagement. The bar C′, of the crank is of sufficient length to bring the crank out to one side of the car, where it is easily accessible without danger. When the crank drops down it carries the pawl over from its standing to a horizontal position, as indicated by the dotted lines.

The operation of the above described device is as follows: Suppose the link to be in a similar draw-bar of the car to be coupled with this and not in this draw-bar, then the crank C, will be hanging perpendicularly, as indicated by the dotted lines. Turn the crank in the direction indicated by the arrows and over till the detents *d*, *p*, latch together and the coupler is in readiness. As the cars near each other the link slides along the inclined surface M′, of the mouth of the drawbar, striking the face H^2, of the hook H, H and pushing the hook up out of the way and unlatching the detents *d*, and *p*, from engagement, the weight of the crank C, carries the pawl P, over out of the way. When the link, passing into the draw-bar, has gone by the pin surface H^2, H^3, the hook will drop into the link as it passes along over *e*, *e*, and the link will strike against the arm D, and drive the hook H, H, back against the spring, that may be compressing it. The spring will force the hook back so that the pin H^4, H^2, H^3, will rest its periphery against the concave surface F, F′, of the recess R, R^3, and the hook will rest on the ledges E, E′, E^2, E^3, the hook H, resting on the link at the point H^6, indicated in Fig. 1, holding the link in a horizontal position. When the draft comes the link will be drawn against the pin H^4, H^2, H^3, and the entire convexity H^7, H^2, will bear against the concave surface F, F′, both above and below the entrance for the link, thus forming a strong bearing. To uncouple, simply set as in coupling as shown in Fig. 1. Should a car be standing liable to have a car run against it which has a link in, and coupling be not desired trip the coupling crank and the hook H, H, will drop below the entrance so that a link will slide right in on top of it with no chance of coupling.

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

1. In a car-coupler the combination of a draw-head A, the hook H, adapted to abut against said drawhead, the coil-spring S, secured to said draw-head partly within a tubular aperture in said drawhead, the hook H, being secured to said spring near the mouth of said aperture, whereby said hook is adapted to receive both a pivotal movement and a movement of translation, substantially as shown and described.

2. The combination of the draw-head A, A, the hook H, provided with a detent *d*, the cam P, provided with a detent *p*, adapted to engage with detent *d*, the crank C, secured to the cam P, and adapted to turn said cam out of engagement with the hook H, by means of its weight, said hook being adapted to be raised by the entering link so as to disengage the detents *d*, and *p*, substantially as shown and described.

LIVINGSTON O. BEEBEE.

Witnesses:
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