

(Model.)

J. J. CURRIER.

CAR COUPLING.

No. 260,171.

Patented June 27, 1882.

Fig: 1.

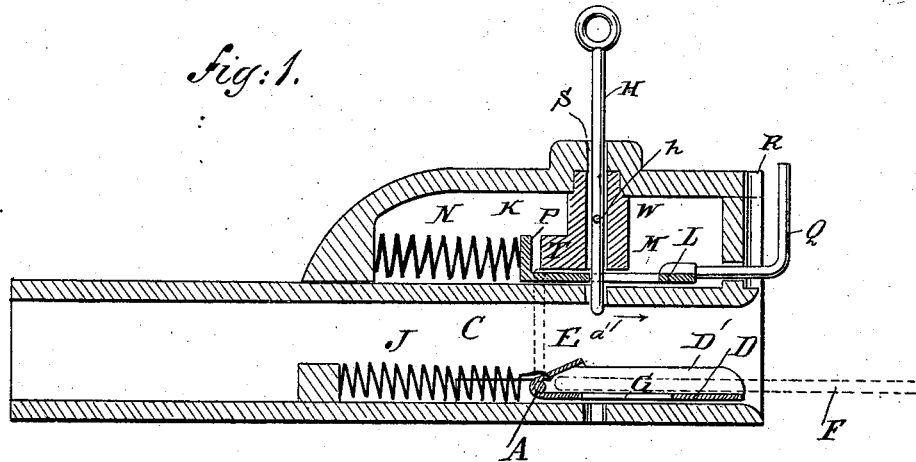


Fig: 2.

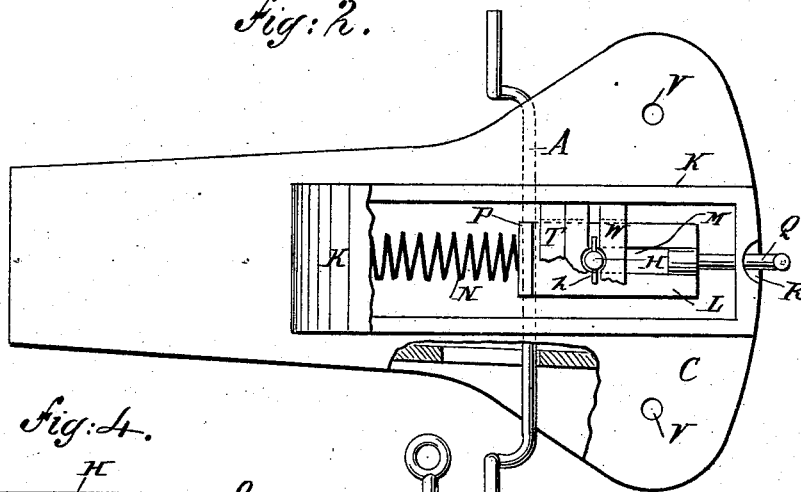


Fig: 4.

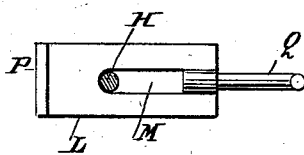
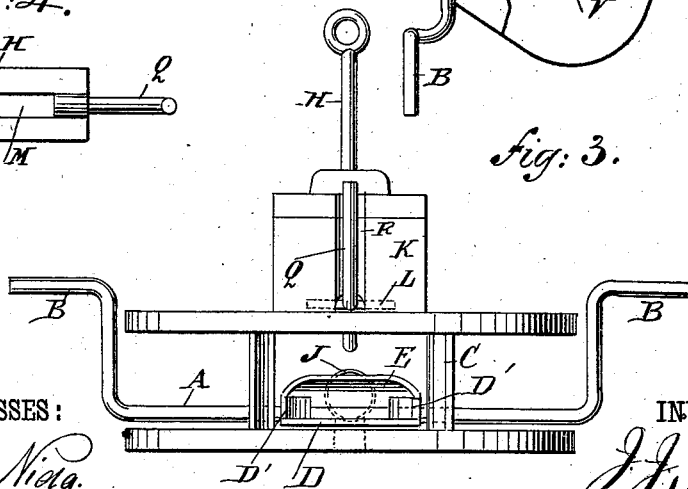


Fig: 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN J. CURRIER, OF WASECA, MINNESOTA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 260,171, dated June 27, 1882.

Application filed December 9, 1881. (Model.)

To all whom it may concern:

Be it known that I, JOHN JONES CURRIER, of Waseca, in the county of Waseca and State of Minnesota, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved attachment for draw-heads of cars for the purpose of raising the link to facilitate its passage into the opening of the opposite draw-head, and also to release the raised coupling-pin automatically when the two draw-heads come in contact.

The invention consists in a plate provided at its inner end with a pocket for receiving the end of the link, which plate rests flat on the bottom of the draw-head, and is attached to a crank-shaft journaled in the draw-head, whereby the link may be raised more or less by turning the crank-handle more or less, this plate being kept in position on the bottom of the draw-head by a spring.

The invention further consists in a slotted sliding plate on the top of the draw-head, which plate is pressed toward the end of the draw-head by a spring, and is provided at its outer end with a projecting angularly-bent rod. This plate is contained in a box on the draw-head, which box contains a coupling-pin guide, as will be more fully described hereinafter.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of a draw-head provided with my improved coupling devices. Fig. 2 is a plan view of the same, showing parts broken out. Fig. 3 is a front end elevation of the same. Fig. 4 is a plan view of the slotted slide.

A shaft, A, provided with a crank-handle, B, at each end, passes transversely through the draw-head C a short distance from the outer end, and directly above the bottom of the draw-head. A plate, D, provided with longitudinal flanges D', and which projects to the outer end of the draw-head, is attached firmly to the shaft A, and is provided at its rear end with a flange, E, extending from the shaft A toward the upper edge of the outer end of the draw-head, thereby forming a pocket for the coupling-

link F, the inner end of which is placed in the pocket thus formed, the link resting on the plate D and projecting from the outer end of the draw-head.

The plate D is provided with a longitudinal slot, G, through which the coupling-pin H can pass. A spiral or other suitable spring, J, suitably secured in the draw-head, presses against the inner end of the plate D, and thus retains this plate in its position on the bottom of the draw-head.

On the top of the draw-head I have arranged a box, K, containing a plate, L, provided with a longitudinal slot, M, and adapted to slide longitudinally on the top of the draw-head, which plate L is pressed toward the outer end of the box K by a spring, N, resting against the rear end of the box K and against the rear turned-up end or flange P of this plate L.

A rectangularly-bent rod, Q, is attached to the front end of the plate L, and passes through an opening at the bottom of the outer end of the box K, which front end of the box is provided with an external vertical groove, R, for receiving the vertical part of the rod Q.

The top of the box K is provided with an aperture, S, below which there is a vertically-apertured block, W, projecting downward from the inner surface of the top of the box K, and provided on its inner or rear side with the projection T. The apertures in the draw-head and the aperture in the top of the box K correspond in position.

V V are apertures into which the coupling-pin can be passed when not in use. A pin, h, passed through the coupling-pin H, prevents the entire withdrawal of the said coupling-pin.

The operation is as follows: The link F is placed into the pocket formed by the plate D and the flange E, and by turning one of the cranks B more or less the plate D will be raised more or less, thus permitting the links to be guided into the opening of the opposite draw-head. As soon as the crank is released the spring J forces the plate D down upon the bottom of the draw-head. If the coupling-pin H is withdrawn, the spring N presses the plate L in the direction of the arrow a' until the flange P rests against the projection T of the block W, but then the plate L covers the aperture in the top of the draw-head. If the coupling-

pin is then placed into the draw-head, the lower end of this pin will rest on the plate L. When the draw-heads come in contact the end of one box K strikes the angular rod Q, projecting a short distance from the other or opposite box K, and presses this rod against the end of its box K, causing a movement of the plate L in the inverse direction of the arrow a' —that is, the plate L is moved from under the coupling-pin H, permitting the same to drop through the slot M, the link F, the slot G, and into the aperture in the bottom of the draw-head. The cars are thus automatically coupled. The link can be connected with the top of the car by means of a chain or rope, and the crank-handle B can be connected with the top of the car by means of a rod or lever, so that the coupler can be operated from the top of the car.

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

1. The combination, with the slotted draw-head C, of the crank-shaft A B and the hori-

zontally sliding and flanged plate D, rigidly secured to the said crank-shaft, substantially as and for the purpose set forth.

2. The combination, with the draw-head C, of the plate D, the crank-shaft A B, and the spring J, substantially as shown and described.

3. The combination, with the draw-head C, of the slotted sliding plate L, the spring N, the angularly-bent rod Q, and a guide for the coupling-pin, substantially as herein shown and described.

4. The combination, with the draw-head C, of the box K, the slotted sliding plate L, provided with a rear flange, P, the spring N, the guide-block W, and the angularly-bent rod Q, attached to the front end of the plate L, substantially as shown and described.

JOHN JONES CURRIER.

Witnesses:

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E. M. BROUGHTER.