

(No Model.)

E. M. BROWN.

CAR COUPLING.

No. 321,276.

Patented June 30, 1885.

Fig. 1.

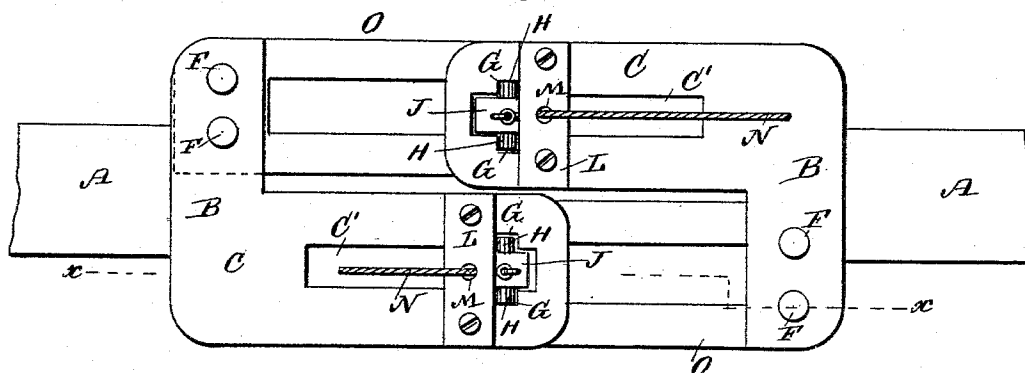


Fig. 2.

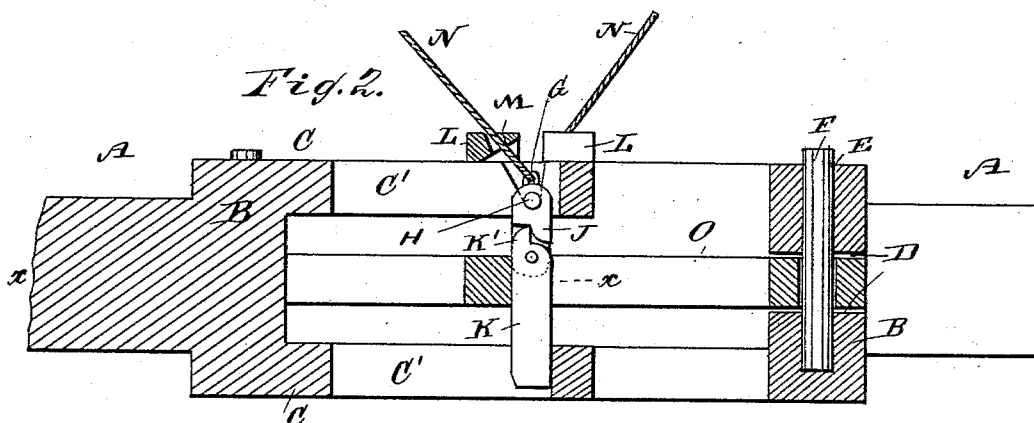


Fig. 3.

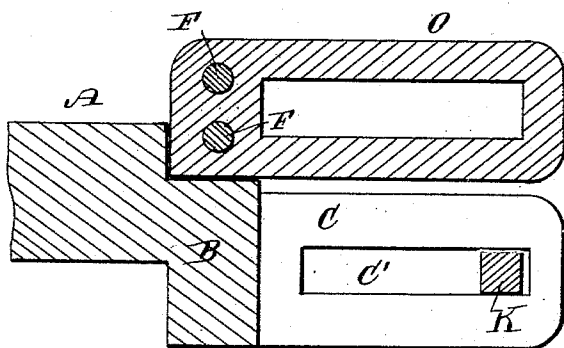


Fig. 4.

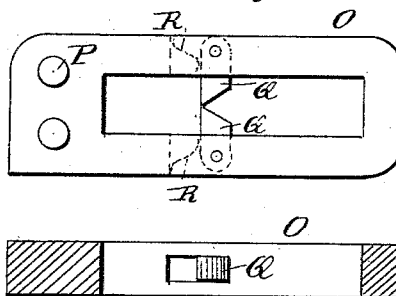


Fig. 5.

WITNESSES:

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ERNEST M. BROWN, OF NEW BOSTON, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 321,276, dated June 30, 1885.

Application filed November 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, ERNEST McCLELLAND BROWN, of New Boston, in the county of Mercer and State of Illinois, have invented a new and improved Car-Coupling, of which the following is a full, clear, and exact description.

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

Figure 1 is a plan view of my improved car-coupling, showing two draw-heads engaged. Fig. 2 is a longitudinal sectional elevation of the same on the line *x x*, Fig. 1. Fig. 3 is a sectional plan view of one draw-head. Fig. 4 is a plan view of the link. Fig. 5 is a longitudinal sectional view of the same.

On the front end of the draw-head A a cross-head, B, is formed, from which two prongs, C, project, one above the other, at one side of the center, each prong C having a longitudinal slot C'.

That portion of the head B adjacent to the one from which the prongs C project is provided with a notch, D, extending from one side edge to the center of the head. Pin apertures E are formed in that part of the draw-head above the said notch, and pin-recesses in the part below it for receiving pins F.

In the top of the upper prong, C, a V-shaped recess, G, is formed in each side of the slot C' at the outer end, and in the said notches the ends of a short pin, H, are passed, which pin passes through the upper end of a link, J, to the lower end of which the coupling-pin K is pivoted in such a manner that it can swing to the front independently of the link. To prevent the link J and pin K swinging to the front at the joint, I have provided the pin with a lug, K', at the upper end on the inner edge.

A cross-piece, L, is secured on each upper prong, C, near the free end, and is provided with an aperture, M, through which a cord, N, is passed, which is secured to the upper end of the link J.

The link O is provided at the rear end with two apertures, P, for the pins F, and in each side piece of the link a latch, Q, is pivoted, the inner edges of which are beveled.

Springs R, acting on the latches Q, press

them outward, to project from the inner edges of the side pieces of the link.

The cross-piece L prevents pulling up the pin too far.

The operation is as follows: A link, O, is held in each draw-head by two pins, F, the horizontal plane of the link being about midway between the horizontal planes of the prongs C, so that the link on one draw-head can readily pass between the prongs C of the opposite draw-head. The outer or free end of the entering link strikes the front edge of the pin K and swings it inward on the pivot of the link until the outer cross-piece of the link has passed, when the pin swings to the front and against the cross piece of the bottom prong, C, thus coupling the cars. As long as the bottom of the pin K rests against the outer cross-piece of the bottom prong, C, the pin cannot be swung toward the end of the draw-head, and the link cannot be withdrawn from between the prongs C.

If the cars are to be uncoupled, the cord N is pulled upward and the pin raised sufficiently to bring its lower end above the outer end piece of the bottom prong, C, thus permitting the link while being withdrawn to swing the lower end of the pin outward on the pivot of the pin. The cars are at all times coupled by two links, which may be straight when the draw-heads are the same distance above the ground, or may be bent when the draw-heads are at different elevations.

The pins have considerable play in the links, which is admissible on freight-cars, but very objectionable on passenger-cars, and to prevent this I have provided the latches Q, which swing back to let the pins pass to the rear portion of the slot in the link, but prevent it from passing into the front portion, thus limiting the play of the pin and preventing undue jolting of the cars.

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

1. The combination, with a draw-head, of a swinging link having a cross-pin resting in V-shaped recesses G in the said draw-head, and a coupling-pin hinged to the links, substantially as herein shown and described.

2. The combination, with a draw-head having V-shaped recesses G, of the link J, having

a cross-pin, H, and of the pin K, hinged to the link J, substantially as herein shown and described.

3. The combination, with a draw-head, of the cross-piece L, the link J, having a cross-pin, H, resting in V-shaped recesses G in said head, said link being hinged on the draw-head, and the pin K hinged to the link, substantially as herein shown and described.

10 4. The combination, with a draw-head, of the cross-piece L, having an aperture, M, the link J, having a cross-pin, H, resting in V-shaped recesses in said draw-head, the pin K, hinged to the link, and the cord N, passed through the aperture M and secured to the top of the link J, substantially as shown and described.

15 5. A draw-bar provided with a head, from one side of the face of which two longitudinal slotted prongs project, and which is provided with a coupling-pin, in combination with a coupling-link of an opposite draw-head, substantially as herein shown and described.

6. The draw-head provided on one side of its face with the two slotted prongs, C, and with the notch or recess D in the other side, said recess holding a link, in combination with the coupling-pin of an opposite draw-head, substantially as herein shown and described.

7. The combination of the draw-heads, each having two slotted prongs, C, and a notch, D, the links O, the pins F, and coupling-pins hung in the top prong of each draw-head, substantially as herein shown and described.

8. The combination, with the link O, of the hinged latches Q, substantially as herein shown and described.

9. The combination, with the link O, of the hinged latches Q and the springs R, substantially as herein shown and described.

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Witnesses:

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