(No Model.)

W. L. McQUARRIE.

CAR COUPLING.

No. 489,195. Patented Jan. 3, 1893.

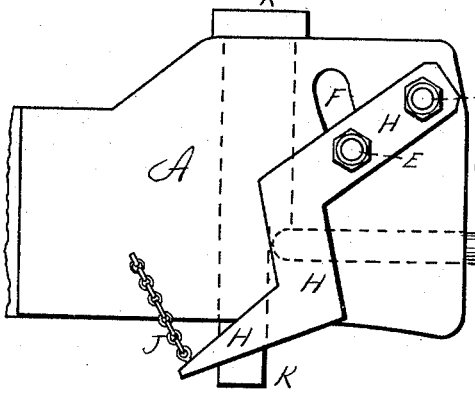

Fig. 1.

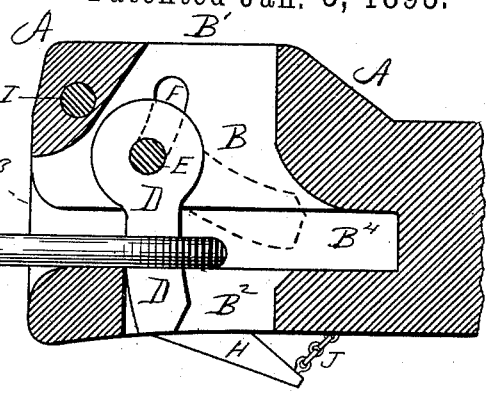

Fig. 2.

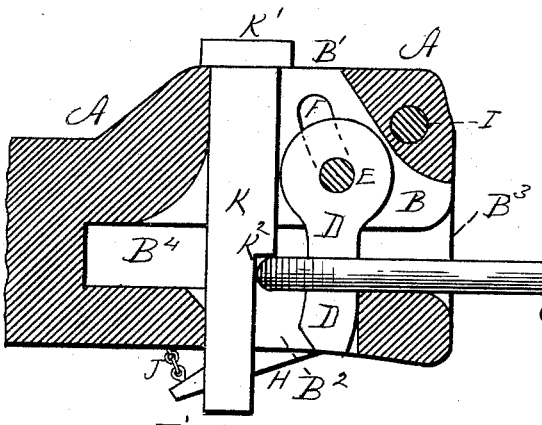

Fig. 3.

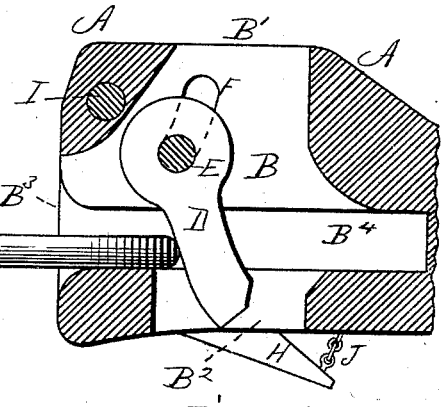

Fig. 4.

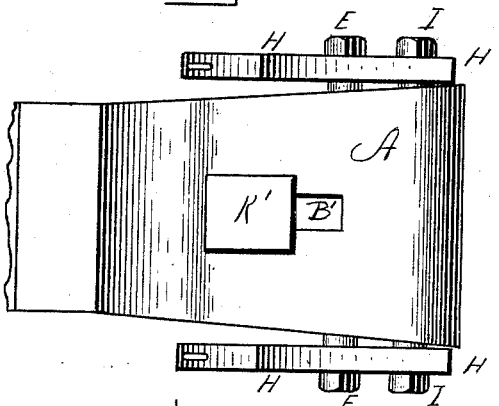

Fig. 5.

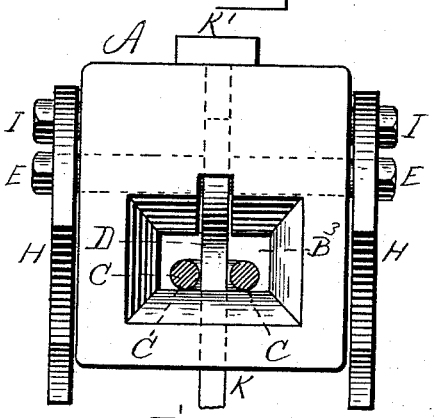

Fig. 6.

WITNESSES

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 489,195, dated January 3, 1893.

Application filed November 2, 1892. Serial No. 450,728. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. McQUARRIE, a subject of the Queen of Great Britain, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

This invention relates to automatically operating link car-couplings, and the nature of the improvement is fully described below and illustrated in the accompanying drawings, in which;

Figure 1 is an elevation and Fig. 2 is a longitudinal vertical section of opposite portions of the complete coupling connected by a link and constituting my invention, the portions being represented as coupled. Figs. 3 and 4 are longitudinal vertical sections of the two portions of the coupling with the link in the act of coupling. Fig. 5 is a plan view of the invention as illustrated in Figs. 1 and 3. Fig. 6 is a front or end elevation of the same.

Similar letters of reference indicate like parts.

The two portions constituting the couplings of the adjacent ends of two cars are exactly alike and are lettered correspondingly.

A represents the buffer or body of the coupler adapted to be secured to the car in any desired manner. This buffer or body is provided with a chamber B of substantially the shape shown, having an opening or outlet passage at B′ in the upper surface of the buffer, an opening or outlet passage B^2 at the bottom, a mouth or inlet B^3 at the front end or face, and a rearward extension B^4 for the accommodation of the link C.

D is a pin suspended and swinging vertically from a horizontal shaft E located within the chamber B. The opposite ends of this shaft extend through the slots F formed in the opposite sides or walls of the buffer or body of the coupler, and extend into and are supported loosely by the lifting levers H whose upper ends are pivotally secured outside the buffer to the opposite ends of the horizontal rod or shaft I. Suitable chains or connections, as J, extend from the free ends of the lifting levers H to a point on the car or car-platform conveniently accessible to the brakeman or railroad employé.

The normal position of the swinging pin D is hanging vertically, as shown in Figs. 2 and 3. Assuming that the cars are coupled, the pull of the link C is against the rear side of the pin D and through the pin against the solid lower front portion of the buffer A or that portion which is below the front passage B^3 leading to the chamber, and against the shaft E which in turn bears solidly against the front edges of the slots F. To release the link, the free ends of the levers H are lifted by means of the chains J from the car or car-platform, drawing the shaft E up to the upper ends of the slots F, and with it the swinging pin D, until its lower end is sufficiently raised to allow the link C, when drawn forward, to swing said lower end out into the front passage B^3, thus enabling the link to be withdrawn. To insert the link, it is merely pushed through the opening B^3 into the chamber B, swinging up the lower end of the pin D, as shown in Fig. 4 and in broken lines in Fig. 2, until the front end of the link passes into the extension B^4, when the pin drops by gravity into the link, securing it. After the link has been thus thrust by hand into one buffer, in order to automatically couple on a car, a stop-pin or bolt K is dropped through the rear portion of the passage B′ into the chamber behind the link, thus preventing the link from being pushed back into the extension B^4 by the pin D in the opposite buffer, instead of lifting said pin and then allowing it to drop by gravity and couple the cars by engaging the advancing end of the link. The head K′ prevents the bolt K from dropping through, and the shoulder K^2 rests on the upper edge of the rear end of the link and, by the weight of the bolt, keeps the link horizontal and hence in position to be thrust into the opening B^3 of the opposite buffer. The bolt K may, after the cars have been coupled, be removed, or not as desired. But one bolt is needed for a car *i. e.*, one bolt for two buffers, the bolt being for use in a buffer which has a link engaged and ready to be thrust into an opposite buffer.

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

1. The herein described improved car-coupling, comprising the buffer or body A of the coupling provided with the chamber B, said

chamber having the upper outlet passage B′, the lower extension B^2, rear extension B^4 and front opening B^3, the pin D hanging in the chamber B and depending from the shaft E, and the levers H pivotally secured to the outer sides of the buffer and sustaining and lifting the shaft E, the walls of the buffer being provided with slots F through which the ends of the shaft E extend, substantially as set forth.

2. The herein described improved car-coupling, comprising the buffer or body A of the coupling provided with the chamber B, having the upper outlet B′, lower extension B^2, rear extension B^4 and front opening B^3, the walls of the buffer being provided with the slots F, the hanging pin D, shaft E and supporting levers H pivotally secured to the buffer, and the drop-pin or bolt K having the shoulder K^2, substantially as described.

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Witnesses:

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