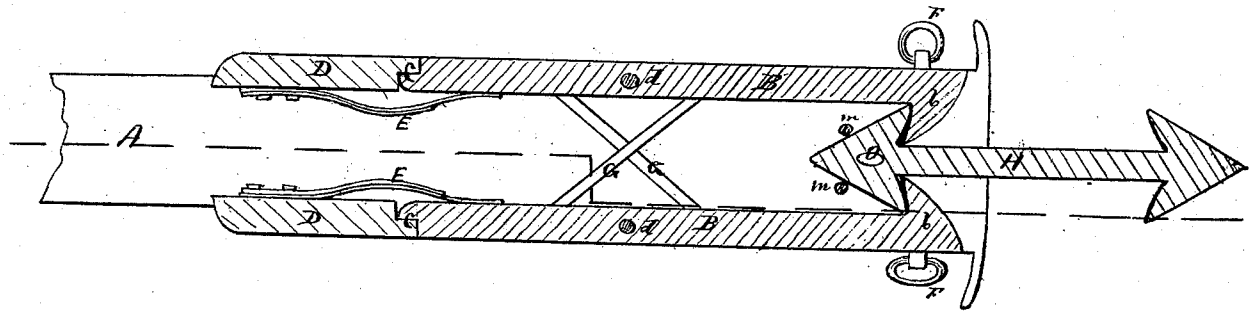
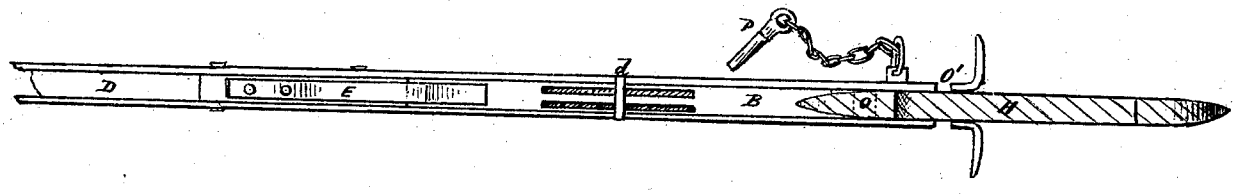
W. W. BELL.

Car Coupling.

No. 99,817. Patented Feb. 15, 1870.





Witnesses:
J. B. Turchin
John McIntosh

W. W. Bell
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United States Patent Office.

W. W. BELL, OF CHICAGO, ILLINOIS.

Letters Patent No. 99,817, *dated February* 15, 1870.

IMPROVEMENT IN CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, W. W. BELL, of the city of Chicago, in the county of Cook, and State of Illinois, have invented certain new and useful Improvements in "Car-Couplers;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

Figure 1 represents the plan, and

Figure 2 represents the section along the line *x x'* of the coupler.

The nature of my invention consists in so arranging the coupling-link that when it is pushed into the buffer or draw-bar of a car, it couples itself with the two tumblers affixed in the said buffer, and is uncoupled by drawing out one of the said tumblers by hand, both tumblers acting simultaneously, as will be hereafter fully explained.

A is the buffer or draw-bar, made flat.

B B are the tumblers or catches, provided at one end with heads *b b*, as shown, and at the other end with notches, C C, fitting into the side pieces D D of the draw.

The tumblers are pinned to the draw-bar at *d d*, around which points they can pivot, but are retained in place by strong springs, E E, secured at one end to the pieces D D of the draw, and pressing with the other end against the notched ends of the tumblers, so that when a tumbler is drawn out of the buffer by means of ring F placed at its head, its other end overcomes the resistance of the spring, but when the head is let off, the spring puts the tumbler in its place again.

In order to make both tumblers to come out when power is applied to only one of them, braces G G are placed crosswise between them, their ends fitting the grooves or notches with which the said tumblers are provided on the inside, said grooves or notches extending on both sides of the pivot-points *d d*.

H is a solid link, its head made in the shape of an arrow, and so as to fit the corners of the tumblers' heads, and catch or couple between them.

The forward point of the head is somewhat sharpened or beveled off, so as to render it easy to enter the buffer at the coupling of the cars, and may be provided also with an opening, O, for the purpose of coupling the cars in case of necessity by an ordinary pin, P.

A corresponding opening, *o'*, is also provided in the draw-bar.

m m are pins in the draw-bar to keep the head of the link in place and to prevent the same from moving to either side or too far back.

The operation consists in this, that in coupling cars the link of one car enters the draw-bar of the other car, and couples automatically with its tumblers, but in uncoupling, a man draws one of the rings F of one car, and thus opening its tumblers uncouples the link.

The advantage of my self-coupler consists particularly in this, that it couples itself, and that the attendant in uncoupling cars runs no danger at all, as by reaching over his hand from a distance to the ring F, he can easily uncouple the cars without going between them.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The link H and the tumblers B B, in combination with springs E E and braces G G, all constructed, arranged, and operating substantially as herein set forth and for the purpose specified.

W. W. BELL.

Witnesses:

J. B. TURCHIN,

FRANK H. BATTERSHALL.