

I. R. McCORMICK.  
Car-Coupling.

No. 215,645.

Patented May 20, 1879.

Fig. 1.

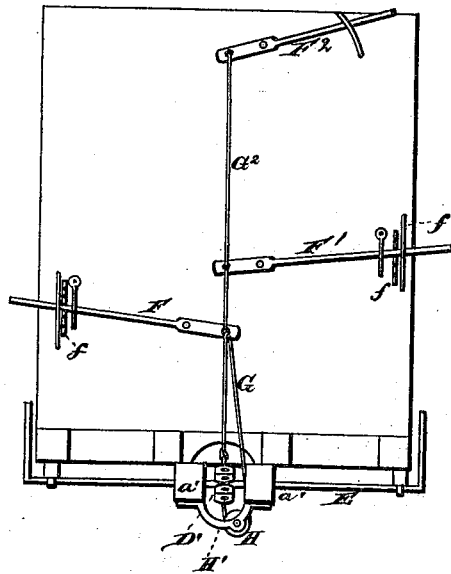


Fig. 2.

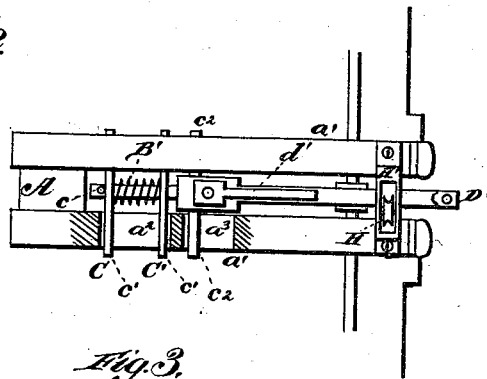
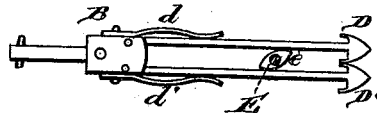


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **215,645**, dated May 20, 1879; application filed April 12, 1879.

*To all whom it may concern:*

Be it known that I, ISAAC R. McCORMICK, of Frankton, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of an end view of a car, showing my device applied. Fig. 2 is a bottom view of the same, and Fig. 3 is a detail view.

My invention relates to car-couplings; and it consists in the following described and claimed devices for attaching and detaching the couplings of cars, and the construction of the same, as will hereinafter more fully appear.

A is the frame for receiving the draw and coupling bar B. This frame is securely attached to the body of the car, and each side piece *a* and *a'* is provided with two slots, *a*<sup>2</sup> and *a*<sup>3</sup>.

The draw-bar B is provided with two cross-heads, C C', and a stop-pin, *c*. These cross-heads retain the spring B', and the slots *a*<sup>2</sup> *a*<sup>2</sup> retain the cross-heads by embracing their extended arms *c*<sup>1</sup> *c*<sup>1</sup>. The draw-bar is also provided with studs or trunnions *c*<sup>2</sup>, which pass into the slots *a*<sup>3</sup> *a*<sup>3</sup> of the draw-bar frame A. The draw-bar is also provided with the hinged arrow-headed coupling-bars D D' and the springs *d* *d'*, for retaining the arrow-heads in contact.

E is a rod passing through the frame A, and *e* is a double cam-roller or double eccentric-pulley, located between the two coupling-bars D and D'. This rod extends across the

car, and at each side has a crank-handle for operating it in such a manner as to open the hinged coupling-bars by revolving the eccentric-pulley *e*.

F F<sup>1</sup> F<sup>2</sup> are three levers, hinged upon the end of the car, and provided with ratchet-bars *f* and guards *f'*. G is a cord or chain, one end of which is attached to the coupling-bar D. It is then passed through the eye in the short arm of lever F, and down and under the pulley H, which is held in its position by the bridge H'. This bridge is attached to the two side pieces of the frame A. This cord then is attached to the lower draw-bar, D', so that any upward motion of the short arm of lever F will operate both D and D' in opening the coupling for coupling or uncoupling the cars.

By means of levers F<sup>1</sup>, the coupling may be effected from the opposite side of the cars from lever F, and by lever F<sup>2</sup> the same may be operated from the top of the car.

G<sup>2</sup> is a cord or chain, connecting F<sup>1</sup> and F<sup>2</sup> with the short arm of F, as shown.

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

1. The frame A, provided with the slots *a*<sup>2</sup> and *a*<sup>3</sup>, and the bridge H' and pulley H, in combination with the rod E and cam *e*, constructed and operating substantially as set forth.

2. The cords G G<sup>1</sup> G<sup>2</sup>, in combination with the levers F F<sup>1</sup> F<sup>2</sup> and the coupling-bars D D' and pulley H, as and for the purposes substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ISAAC ROSS McCORMICK.

Witnesses:

WILLIAM MONTGOMERY,  
SAMUEL MONTGOMERY.