

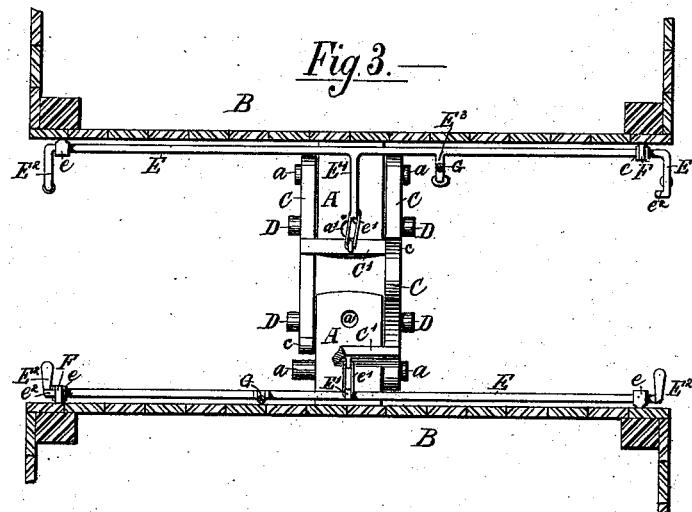
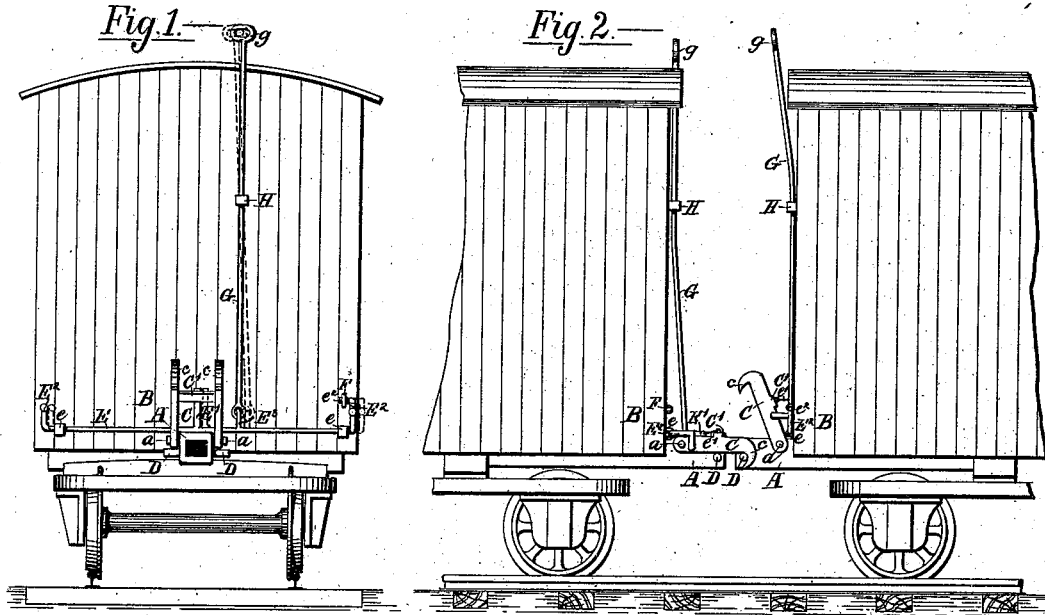
(No Model.)

2 Sheets—Sheet 1.

C. EBY.
CAR COUPLING.

No. 382,759.

Patented May 15, 1888.



Witnesses—
Wm. T. Hemming.
Louis M. F. Whitehead.

Inventor—
Christie Eby.
by— Hayton & Poole
Attorneys—

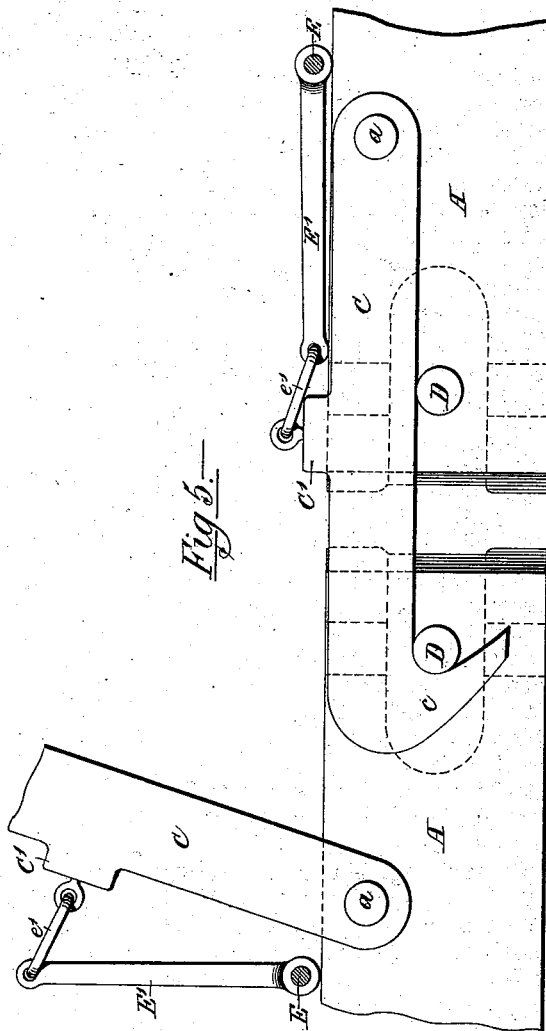
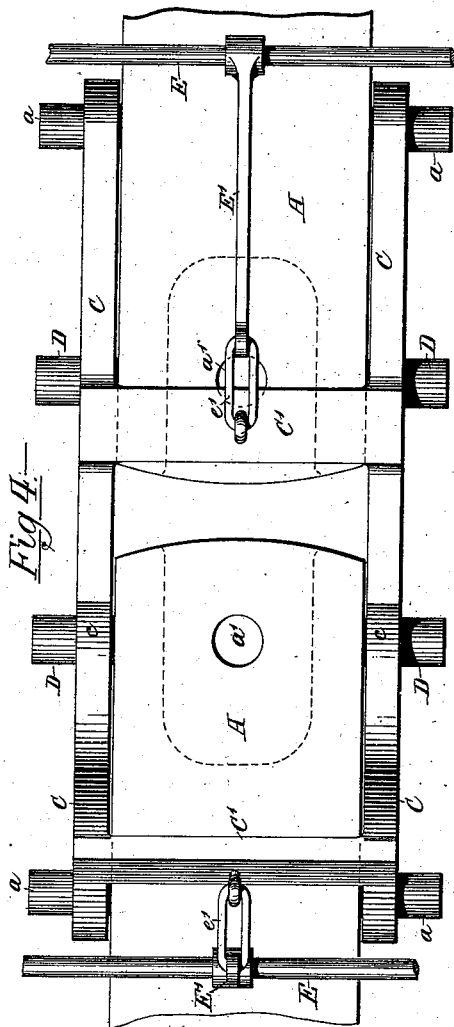
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2 Sheets—Sheet 2.

C. EBY.
CAR COUPLING.

No. 382,759.

Patented May 15, 1888.



Witnesses.
Wm. J. Fleming
Louis H. Whithead

Inventor
Christie Eby
by Bayton & Poole
Attorneys.

UNITED STATES PATENT OFFICE.

CHRISTIE EBY, OF RHINELANDER, WISCONSIN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 382,759, dated May 15, 1888.

Application filed August 8, 1887. Serial No. 246,382. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIE EBY, of Rhinelander, in the county of Lincoln and State of Wisconsin, 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 thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention embraces an improved car-coupling comprising a draw-head provided with two lateral extensions or pins, and also with two swinging hooks constructed to swing about a horizontal axis and to engage the lateral projections or pins of another similar draw-head, together with means for actuating such car-coupling from the side or top of the car.

The invention embraces the matters herein-after described, and pointed out in the appended claims.

In the accompanying drawings, illustrating my invention, Figure 1 is an end view of a car provided with a coupling device constructed in accordance with my invention. Fig. 2 is a side view of the adjacent ends of two connected cars. Fig. 3 is a plan view of the adjacent ends of two cars, showing the couplings interlocked. Fig. 4 is a detail plan view, much enlarged, of the couplings. Fig. 5 is a side elevation of the same.

As shown in the said drawings, A A are two draw-heads, which are made exactly alike and attached to the car-body B in any common or preferred manner.

C C are two hooks or hooked arms, which are located at opposite sides of each draw-head and are pivotally connected therewith by studs or pivot-pins *a a*. The said arms C C are provided at their free or outer ends with depending hooks *c c*, adapted to engage pins or projections D D upon the opposite sides of the opposing draw-head. The opposite hooked arms C C upon each draw-head are rigidly connected with each other by a cross-bar, C', so that both hooks are raised and lowered together, and the outer faces of the hooks C C are inclined or beveled downwardly and inwardly, so that said hooks will rise and pass over the

pins D D when said pins encounter the hooks in bringing the draw-heads together.

In the operation of this device only one pair of arms C C and pins D D are used at one time, the pair of arms not in use being lifted up or thrown back out of the way, so that the engagement of the hooks of the arms which are in use with the pins D D shall not be interfered with.

The draw-heads A A are herein shown as recessed and provided with coupling-pin apertures *a' a'*, so that the cars containing my improved coupling device may be coupled with other cars by means of the common coupling-link.

As a further and special improvement, devices are herein shown for actuating the hooked arms C C of the coupling device above described from the sides and top of a car, as follows:

E is a horizontal rock-shaft which is pivotally supported upon the end of the car above the coupling devices by means of bearings *e e*. The said rock-shaft is provided with a rigid arm, E', connected with the cross-bar C' of the coupling-hooks C C, by means of a link, *e'*. The said rock-shaft extends from side to side of the car, and is provided at its ends with rigid arms or hand-levers E² E², whereby it may be rotated for the purpose of moving the arm E', and thereby raising and lowering the hooked arms C C, connected therewith. One of the arms or levers E² is provided with an inwardly-extending part or finger, *e²*, parallel with the main part of the rock-shaft and adapted to engage an eye or socket, F, upon the end of the car by a slight endwise movement of the shaft.

The rock-shaft E may obviously be actuated from either side of the car for lifting the hooked arms C, either in coupling or uncoupling the cars. The act of coupling the cars is, however, automatically performed without attention on the part of the brakeman, except to see that the arms on one car are secured in an elevated position and the arms on the other car are resting horizontally, so that they will be free to engage the pins D D when the draw-heads come together.

For actuating the coupling device from the

top of the car the rock-shaft E is provided with another rigid arm, E³, with the outer end of which is connected a vertically-arranged rod, G, extending to a point above the top of the car and provided at its upper end with a handle, g, by which it may be conveniently manipulated. The said rod is engaged with an eye or ring, H, upon the end of the car, said ring being adapted to allow the rod to slide freely in a vertical direction, and also to swing freely sidewise at its upper and lower ends. The arm E³ is attached at such angle to the rock-shaft that by moving the rod G vertically the rock-shaft may be rotated to raise and lower the arms C C. By pushing or moving the upper end of said rod G laterally, the rock-shaft may be shifted endwise in its bearings for the purpose of engaging the finger e² with and disengaging it from the eye F. It follows that the rock-shaft may be rotated to lift the hooked arms and locked in position with the arms raised, and that the hooks may be released and allowed to fall into operative position by properly manipulating the said rod G.

The device described for actuating the coupling-hooks is simple and little liable to get out of order, and is at the same time easily manipulated either from the top of the car or from the ground.

I claim as my invention—

1. The combination, with the car and a draw-head, A, provided with hooked arms C C and pins D D, of a horizontal longitudinally-movable rock-shaft, E, provided with a rigid arm connected with the hooked arms C C, and with an arm or hand-lever provided with a finger, e², and an eye or socket upon the car adapted for engagement with said finger, substantially as described.

2. The combination, with the car and draw-head A, provided with hooked arms C C and pins D D, of a horizontal longitudinally-movable rock-shaft, E, provided with a rigid arm connected with the hooked arms C C, with an arm or hand-lever provided with a finger, e², and with a rigid arm, E³, and an eye or socket upon the car adapted to engage the said finger e², a rod, G, engaged with said arm E³, and an eye, H, upon the car, affording a sliding bearing for said rod G, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

CHRISTIE EBY.

Witnesses:

JOHN BARNES,
JOHN MONARTY.