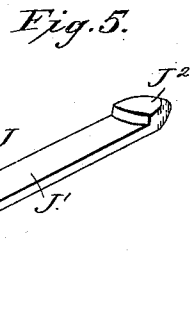
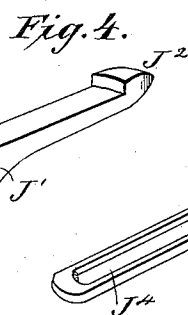
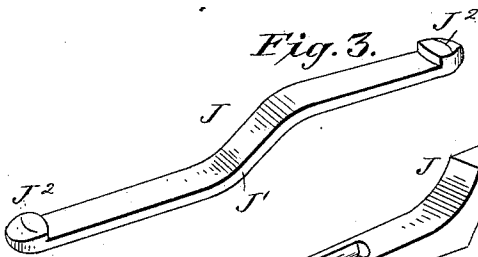
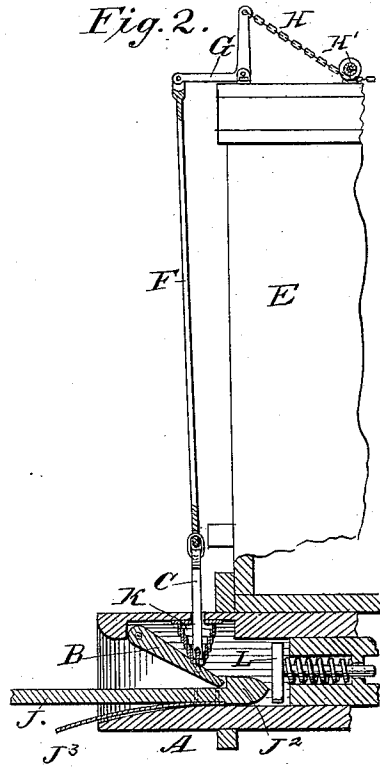
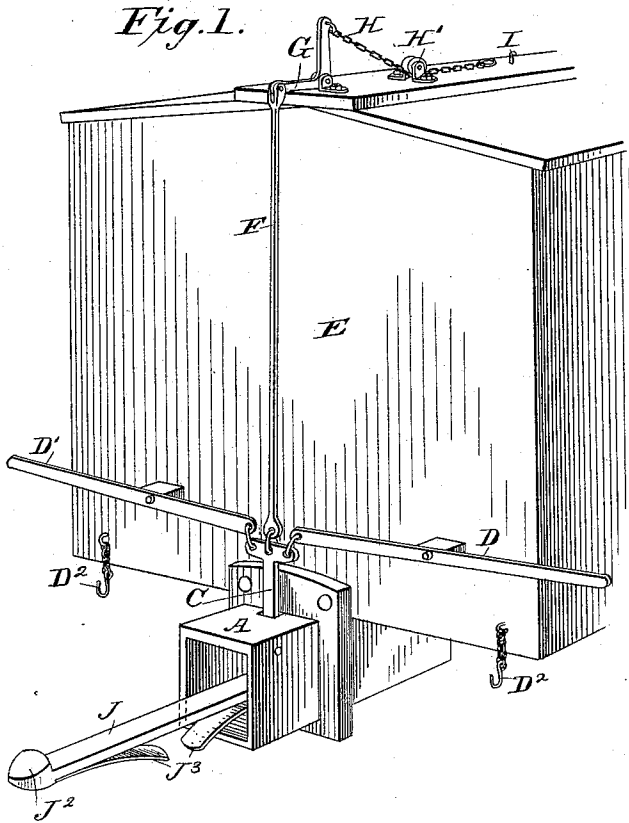


(No Model.)

W. E. ROBERTS.
CAR COUPLING.

No. 357,504.

Patented Feb. 8, 1887.



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WESLEY EATON ROBERTS, OF HARTFORD, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 357,504, dated February 8, 1887.

Application filed October 5, 1886. Serial No. 215,365. (No model.)

To all whom it may concern:

Be it known that I, WESLEY EATON ROBERTS, of Hartford, in the county of Ohio and State of Kentucky, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved car-coupling which is simple and durable in construction, and can be operated from either side or from the top of the car.

The invention consists of parts and details and combinations of the same, and will be fully described hereinafter, and then pointed out in the claims.

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

Figure 1 is a perspective view of a car provided with my improvement. Fig. 2 is a longitudinal central sectional elevation of the same. Figs. 3, 4, and 5 represent perspective views of the links used in connection with my coupling.

To the top of the under side of the draw-head A is pivoted the arm B, which is pivotally connected with the vertical T-shaped arm C, which extends through the top of the draw-head A, and is connected by means of links with two side levers, D and D', pivoted to the end of the car E, and extending a short distance beyond the sides thereof. Each of the arms D or D' can be locked in position by the chain-hook D². The arm C is also linked to the vertical rod F, which extends to the top of the car, and is pivoted to an arm of the bell-crank lever G, mounted in the top of the car E, and provided on its other arm with a chain, H, which passes under the grooved pulley H', and can be fastened by one of its links to a hook, I, secured to the top board of the car.

The coupling-link J, usually employed, consists of a straight bar, provided at each end on the top with a wedge-shaped pointed lug, J², and is provided with a curved spring, J³, fastened to the under side; but the link may be curved, as at J' in Fig. 3.

The spring K is introduced between the upper edge of the arm B and the top plate of the draw-head A, and serves to press the arm B downward.

The operation is as follows: When the link J is placed on one car it assumes the position shown in Figs. 1 and 2, as the spring J³ holds the same in a horizontal position and the arm B holds one end securely in the draw-head A by engaging with the lug J². The other end of the link J, on entering the draw-head of the car to be coupled, lifts the arm B until the lug J² passes behind the lower end of the arm, which drops in front of the lug by its own weight and by the action of the spring, thus coupling the cars together.

The cars can be uncoupled by pulling on the chain H, which, acting on the bell-crank lever G, lifts the rod F and the arm C, which latter causes the pivoted arm B to swing upward, thus disengaging the lug J² from the link J. This operation of lifting the pivoted arm B is also accomplished by pressing on the outer end of either lever D or D'. The chain H, on being fastened to the hook I, holds the pivoted arm B in a raised position, and the same result is obtained by fastening the hook-chain D² over the outer end of either lever D or D' when the same is pressed downward.

For cars having draw-heads of different heights I employ a link, J. (Shown in Fig. 3.) A car with a common pin coupling can be coupled to a car with my improvement by using the link shown in Fig. 5, in which I provide one end of the said link with a slot, J⁴. For coupling cars of different heights, one being provided with my improvement and the other with the common pin coupling, I use the link shown in Fig. 4. A spring-block, L, in the draw-head A prevents the head J² of the link J from being battered when coupling the cars. When one of the coupled cars turns over, then it uncouples itself, as the pivoted arm B is raised by the edge of the link J.

It will be seen that the link J rests only with its head part on the draw-head A, as the bottom of the latter is beveled, as shown, and thus prevents breakage of the link.

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

1. In a car-coupling, the combination, with the draw-head A and the link J, having the lugs J² and the springs J³, of the arm B, pivoted in the draw-head, the spring K, interposed between the top of the arm and the

draw-head, the arm C, pivoted to the said arm B, the levers D, having their inner ends connected to the arm C, the elbow-lever G, and the rod F, connected to the elbow-lever and
5 arm C, substantially as herein shown and described.

2. In a car-coupling, the pivoted arm B and the arm C, pivotally connected to the said arm B, in combination with the levers D and D',
10 connected to the said arm C, the rod F, pivotally connected to the said arm C, the bell-crank lever G, connected with the rod F, and the chain H, passing under a grooved pulley, H', substantially as shown and described.

15 3. In a car-coupling, the pivoted arm B and

the arm C, pivotally connected to the said arm B, in combination with the levers D and D', connected with the said arm C, the rod F, pivotally connected to the said arm C, the bell-crank lever G, connected with the rod F, and
20 the chain H, passing under a grooved pulley, H', and means for locking the said chain H and the levers D and D' in position when the arm B is swung upward, substantially as shown and described.

WESLEY EATON ROBERTS.

Witnesses:

B. L. FIELD,

J. EDWIN ROWE.