(No Model.)

C. RIVETT & R. L. MACFARLANE.

CAR COUPLING.

No. 341,508. Patented May 11, 1886.

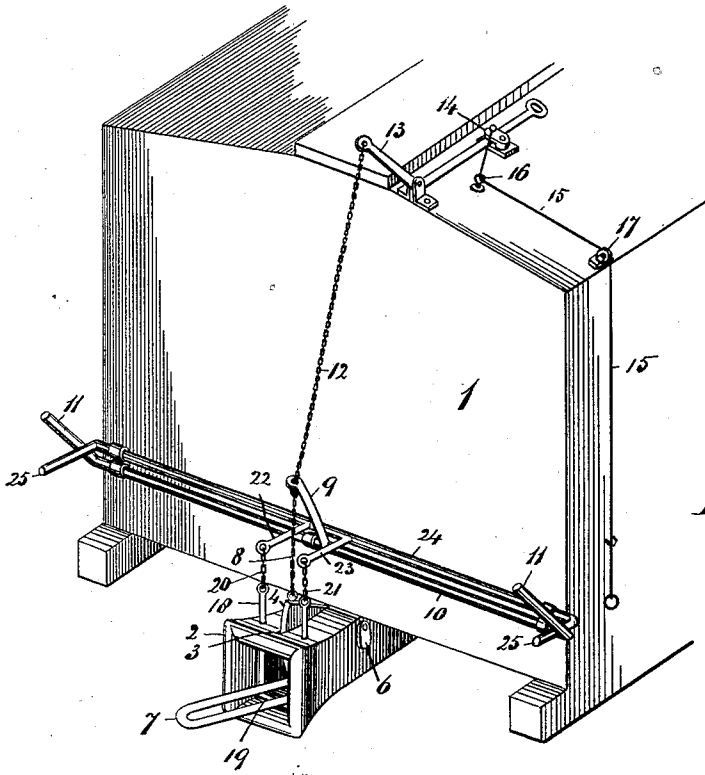


Fig. 1.

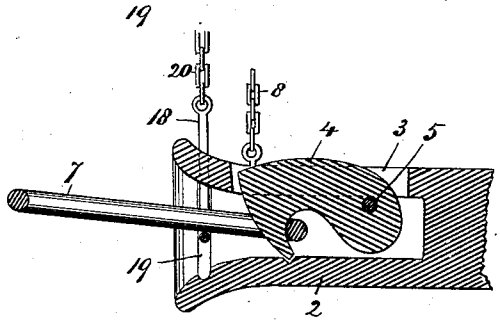


Fig. 2.

Witnesses:
John Grist
C. G. Emock

Inventors:
C. Rivett
R. L. Macfarlane
By Henry Grist
Attorney.

N. PETERS, Photo-Lithographer, Washington.

UNITED STATES PATENT OFFICE.

CHRISTMAS RIVETT AND ROBERT L. MACFARLANE, OF ALMONTE, ONTARIO, CANADA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 341,508, dated May 11, 1886.

Application filed January 13, 1886. Serial No. 188,424. (No model.)

To all whom it may concern:

Be it known that we, CHRISTMAS RIVETT and ROBERT L. MACFARLANE, both of Almonte, in the county of Lanark, in the Province of Ontario, in the Dominion of Canada, have jointly invented certain new and useful Improvements in Car-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the same.

Our invention consists, essentially, in the construction and combination of parts to support the link horizontally for coupling, and to couple the link automatically without going between the cars.

Figure 1 is a perspective view of one end of a car, showing our improved coupling and link-lifting devices. Fig. 2 is a longitudinal vertical section of a draw-head, showing the gravitating-hook and link lifted in position for coupling.

1 represents a car, and 2 the draw-head, having longitudinally in the top a slot, 3.

4 is a gravitating hook pivoted within the draw-head by a pin, 5, the head of the pin countersunk and covered by a gravitating drop-plate, 6, pivoted to the draw-head, to prevent endwise movement of the pin. The front end of the hook is rounded downwardly and inwardly, so as to be lifted by the coupling-link 7 entering the draw-head, and after passing under the hook the point falls into the link and effects coupling automatically. The hook works in the slot 3, and to the upper side of the hook is attached a chain, 8, which connects with an arm, 9, on a rock-shaft, 10, journaled across the end of the car, the ends of the shaft provided with a crank, 11, whereby the shaft may be rocked from the side of the car to lift the hook for releasing the link in uncoupling.

12 is a chain connecting the arm 9 with the end of a bent lever, 13, fulcrumed at the turn to the top of the car, so that by depressing the long arm of the lever to the roof of the car the hook will be raised, thereby effecting uncoupling from the top of the car.

14 is a button pivoted to the roof of the car, and notched to swing over the lever and keep it down, whereby the hook will be raised to prevent coupling.

15 is a rope attached to the button, and passes over pulleys 16 17 on the top of the car, and thence down the side of the car, so that by pulling the rope the button will be turned and the lever released to allow the hook to couple with a link without ascending to the top of the car to release the lever.

18 is a U-shaped yoke sunk in a groove, 19, in the sides and bottom of the mouth of the draw-head, to be flush with the inside, and thereby prevent it from being struck by an entering link. The ends of the yoke pass through holes in the top of the draw-head, said holes being a continuation of the groove in the sides, and to the extremities of the yoke are attached chains 20 21, which connect, respectively, with arms 22 23, projecting from a rock-shaft, 24, journaled horizontally across the end of the car, and the ends of said rock-shaft are provided with a crank-handle, 25, to rock the shaft from either side of the car, whereby the outer end of the link will be lifted to the required height to enter the draw-head of an annexing car.

We claim as our invention—

1. A car-coupling consisting of the draw-head having a longitudinal slot, 3, at top, and provided with a groove, 19, in the inner walls and at bottom, the gravitating coupling-hook 4, pivoted at 5, and having a point bearing on the bottom of the draw-head, and the yoke 18 inserted in the groove 19, the legs extending through holes in the top of the draw-head, as set forth.

2. The combination, with the hook 4, of the chain 8, rock-shaft 10, having arm 9, chain 12, lever 13, button 14, and rope 15, for uncoupling from either the top or sides of the car, as set forth.

3. The combination, with the car-body 1, of the rock-shaft 24, having arms 22 23, chains 20 21, yoke 18, and draw-head 2, having gravitating-hook 4, as set forth.

CHRISTMAS RIVETT.
ROBERT L. MACFARLANE.

Witnesses:
C. G. PENNOCK,
JOHN GRIST.