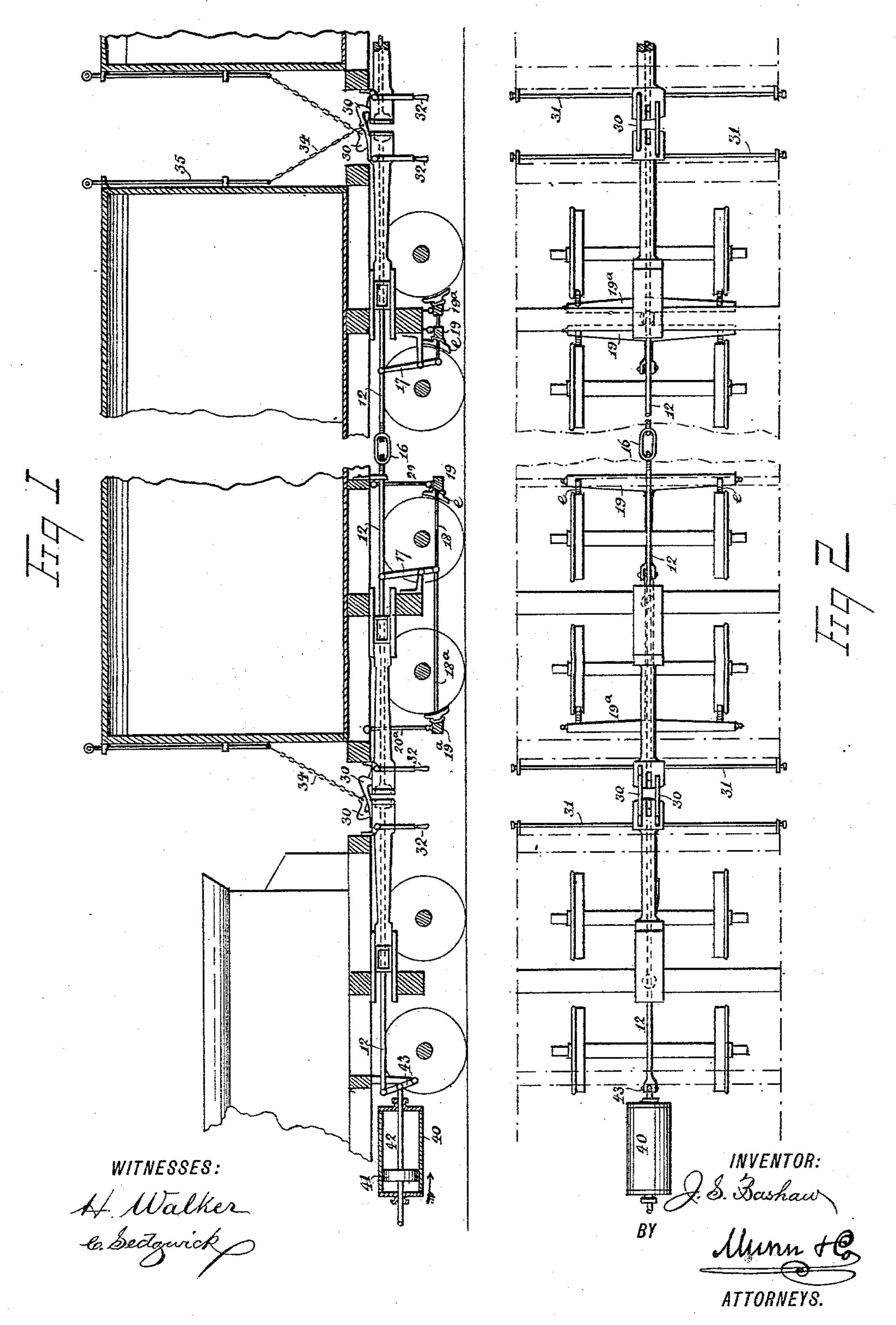
J. S. BASHAW.

COMBINED CAR COUPLING AND BRAKE.

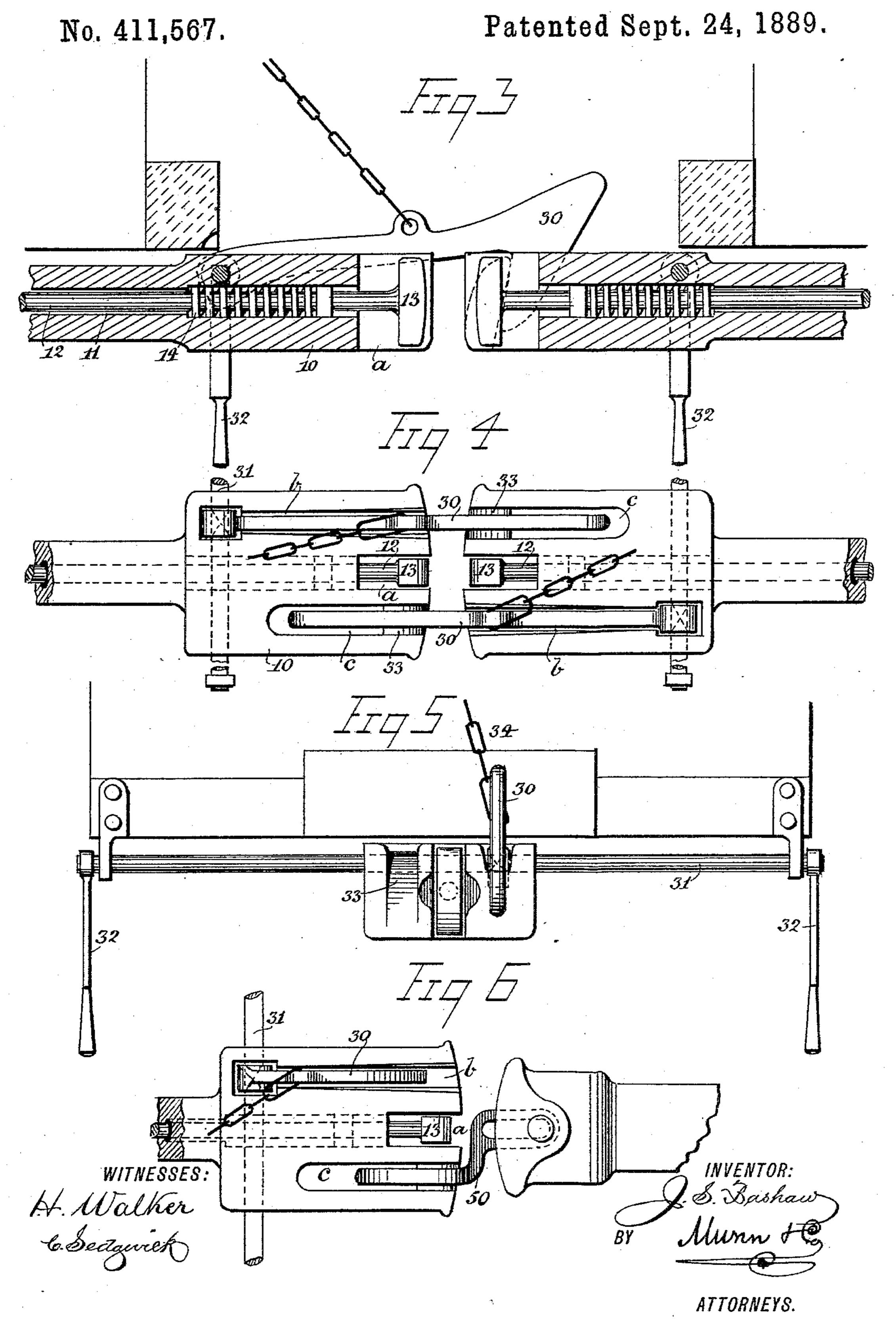
No. 411,567.

Patented Sept. 24, 1889.



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COMBINED CAR COUPLING AND BRAKE.



## United States Patent Office.

JULIAN S. BASHAW, OF CHIPLEY, FLORIDA.

## COMBINED CAR COUPLING AND BRAKE.

SPECIFICATION forming part of Letters Patent No. 411,567, dated September 24, 1889.

Application filed May 9, 1889. Serial No. 310,166. (No model.)

To all whom it may concern;

Be it known that I, Julian S. Bashaw, of Chipley, in the county of Washington and State of Florida, have invented a new and Improved Combined Car Coupler and Brake, of which the following is a full, clear, and exact

description.

This invention relates to a combined car brake and coupler, the object of the invention being to provide for the automatic coupling of the cars, to provide for the uncoupling of the cars without the necessity of entering the space between the car ends, and to provide for the operation of the brakes from the engine connected to the train formed by the cars without the necessity of coupling independent brake-operating attachments.

Reference is to be had to the accompanying drawings, forming a part of this specifi-20 cation, in which similar figures and letters of reference indicate corresponding parts in all

the views.

Figure 1 is a central sectional view of a portion of a train representing the same as it appears when provided with my improved coupler and brake. Fig. 2 is a diagrammatical plan view of the coupler and brake. Fig. 3 is a central sectional view of two couplers embodying my invention. Fig. 4 is a plan view of the mechanism. Fig. 5 is an edge view of the coupler, and Fig. 6 represents my improved coupler as it appears when coupled with an ordinary pin-and-link coupler.

In constructing the car brake and coupler, forming the subject-matter of this application, I provide draw-heads 10, that are formed with bores 11, in which there are mounted stems or rods 12, which carry heads 13, that 40 ride in recesses a, formed in the draw-heads 10, the heads 13 being normally held within the recesses  $\alpha$  by springs 14. The rods 12 of each of the draw-heads carried by the car are connected by a central turn-buckle 16, and to 45 the rods I connect levers 17, which are connected by links 18 with brake-heads 19, that are suspended by rods 20, other brake-heads 19<sup>a</sup> and connections 18<sup>a</sup> and 20<sup>a</sup> being arranged for use when the train is running in 50 a direction opposite to that indicated by the drawings.

At either side of the central recess a of the draw-heads 10 are formed recesses b and c, and in the recesses b, I mount coupling-hooks 30, said hooks being rigidly connected to 55 transverse shafts 31, provided with leverarms 32, said arms being arranged at the sides of the car, as shown best in Figs. 2 and 5.

In advance of the recesses c there are bridges 33, adapted to be engaged by the 60 coupling-hooks 30, the forward faces of the bridges 33 being rearwardly inclined, and the forward faces of the hooks 30 being also inclined, so that as two cars provided with my improved coupler approach the hooks 30, bearing against the inclined faces of the bridges 33, will ride upward until the points of the hooks pass the bridges, after which the hooks will drop into the recesses c, and the cars will be coupled.

To uncouple, the lever-arms are grasped and turned in a proper direction to raise their hooks, or the hooks might be raised through the medium of chains and rods 34 and 35, the rods 35 riding in proper bearings secured to 75 the car ends and extending upward above the car-tops, this arrangement being adopted to obviate the necessity of the brakemen descending to the ground to uncouple the cars.

Upon the tender or engine I arrange a 80 steam-cylinder 40, and in this cylinder is mounted a piston 41, of which the stem 42 is connected to a lever 43, said lever being in turn pivotally connected to the rod 12 of the tender-coupler, the arrangement being such 85 that if steam be admitted to the cylinder 40, so as to drive the piston 41 in the direction of the arrow shown in Fig. 1, the rod 12 of the tender-coupler will be forced to the rear, and its head 13, bearing against the head 13 of the 90 bar carried by the coupler of the car that is coupled to the tender, will force the rods 12 of said car to the rear, and as said rods are so carried to the rear the levers 17 will be rocked, and the brake-heads will be moved to a posi- 95 tion such that the brake-shoes e, carried by said heads, will be forced against the wheeltreads and the rotation of the wheels will be checked. If the cars be moving in the opposite direction—that is, if the engine be hitched 100 to the opposite end of the train, and the carrods 12 be actuated by the piston 41, the brake

mechanism, indicated by numerals having the exponent a, would be called into play to bring about the braking of the train, as will be readily understood.

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

Patent—

1. The combination, with draw-heads formed with recesses a, of rods provided with 10 heads which normally rest within said recesses, connections between the rods of the two draw-heads, levers 17 and 17°, brake-heads to which said levers are connected, and brake-shoes carried by the brake-heads, substantially as described.

2. The combination, with draw-heads formed with recesses a, of rods provided with heads which normally rest within said recesses, connections between the rods of the two draw-heads, levers 17 and 17°, brake-20 heads to which said levers are connected, brake-shoes carried by the brake-heads, a steam-cylinder, a piston arranged therein, and connections, substantially as described, between the piston and the draw-head rods.

JULIAN S. BASHAW.

Witnesses:

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R. C. HORNE.