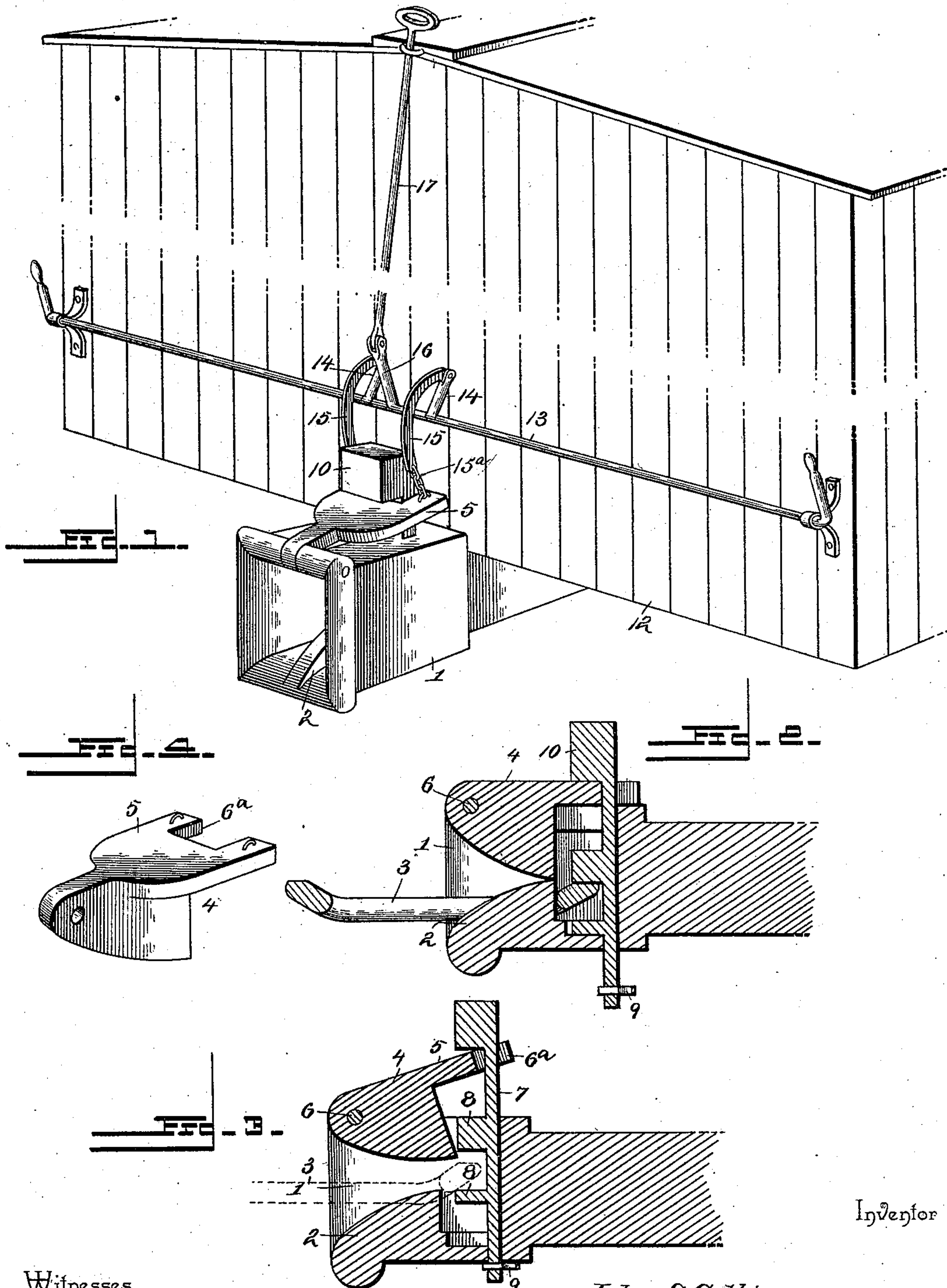


(No Model.)

J. S. COLLISON.
CAR COUPLING.

No. 574,880.

Patented Jan. 12, 1897.



Inventor

Witnesses

D. W. Riley

J. F. Riley

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UNITED STATES PATENT OFFICE.

JOHN S. COLLISON, OF STROMSBURG, NEBRASKA, ASSIGNOR OF ONE-HALF
TO LOUIS W. PETERSON, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 574,880, dated January 12, 1897.

Application filed January 16, 1896. Serial No. 575,735. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. COLLISON, a citizen of the United States, residing at Stromsburg, in the county of Polk and State of Nebraska, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to improve the construction of car-couplings and to provide a simple, inexpensive, and efficient one, capable of coupling automatically and of being readily uncoupled without necessitating a person going between cars.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention and shown applied to a car. Fig. 2 is a central longitudinal sectional view of the car-coupling, showing the same confining the link. Fig. 3 is a similar view, the parts being arranged for releasing the link. Fig. 4 is a detail perspective view of the pivoted catch.

1 designates a draw-head having a flaring mouth and provided at its bottom with a centrally-arranged longitudinally-disposed fixed catch 2, having an inclined upper edge and forming a shoulder at its rear edge, and adapted to engage a link 3. The space above the fixed catch 2 is closed by a pivoted catch 4, arranged in a longitudinal slot of the top of the draw-head and depending therefrom, and having an inclined front edge adapted to be engaged by the link, whereby the catch 4 is lifted to permit the link to engage the fixed catch. The point or lower extremity of the pivoted catch is located adjacent to the upper extremity of the fixed catch, and the link is securely confined in engagement with the latter. The pivoted catch is provided with a horizontal top portion or plate 5, and the pivot 6 is arranged at the front of the draw-head at the top thereof.

The top portion or plate 5 of the pivoted

catch is substantially Y-shaped, being tapered toward its front end and provided at its back with a recess 6, receiving a vertically-movable link-engaging bar 7, mounted in suitable openings of the top and bottom of the draw-head. The vertical link-engaging bar is located in rear of the catches, and is provided with a pair of forwardly-projecting lugs 8, arranged above and below the link and adapted to hold the same at the bottom of the draw-head, but capable of vertical movement to permit the link to have the necessary play. The bottom of the draw-head is provided with a recess to receive the lower lug of the link-engaging bar to permit the upper face of the lug to be flush with the bottom of the draw-head when the bar 7 is in its lowermost position, and the bar is prevented from leaving the draw-head by a pin or key 9, passing through the lower end of the bar and located below the draw-head.

The link-engaging bar is provided at its upper end with a head 10, which extends forward from it and projects over the top of the pivoted catch, whereby it is engaged by the same when the pivoted catch is lifted to release the link. The link is instantly released when the bar 7 is raised by the lugs, which lift the link clear of the fixed catch at the bottom of the draw-head. When the pivoted catch is lowered, the parts are in position for automatic coupling, and a link is adapted to enter the draw-head, lift the pivoted catch, and drop behind the fixed catch, and the terminals of the link are slightly bent upward.

The operation of uncoupling is performed from the sides of a car 12 by means of a rock-shaft 13, journaled in suitable bearings and provided at its ends with handles, and having adjacent to its center a pair of arms 14, which are connected by curved links 15 and short chain 15^a with the top of the catch at opposite sides of the link-engaging bar. The rock-shaft is also provided with a centrally-arranged arm 16, which is connected by a rod 17 with the top of the draw-head to enable the operation of uncoupling to be performed at that point, the car being provided at its top with a suitable guide for the reception of the rod 17.

It will be seen that the car-coupling is ex-

ceedingly simple and inexpensive in construction, that it is positive and reliable in operation, and that it does not necessitate a person going between cars during coupling or
 5 uncoupling. It will also be apparent that the car-coupling is automatic and that the catch 4 and the link-engaging bar 7 may be operated from the top and sides of a car.

Changes in the form, proportion, and the
 10 minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

15 1. In a car-coupling, the combination of a draw-head provided at its bottom with a fixed catch, a pivoted catch mounted on the draw-head, depending from the top thereof and located above the fixed catch, a link, and a ver-
 20 tically-movable bar mounted on the draw-head in rear of the catches, engaging the upper face of the link and connected with and operated by the pivoted catch, substantially as described.

25 2. In a car-coupling, the combination of a draw-head provided at its bottom with a fixed catch, a pivoted catch depending from the top of the draw-head and located at the top thereof above the fixed catch, and the ver-
 30 tically-disposed link-engaging bar located in rear of the catches and capable of vertical movement independent of the pivoted catch, and provided with a head arranged to be engaged by the pivoted catch, whereby the bar

is moved vertically when the pivoted catch 35 is swung upward, substantially as described.

3. In a car-coupling, the combination of a draw-head, a fixed catch arranged at the bottom of the draw-head, a pivoted catch depending from the top of the draw-head and 40 having a top or plate located above the draw-head, and the vertically-movable link-engaging bar located in the rear of the catches and provided with a pair of forwardly-projecting lugs to engage a link, and having a head sup- 45 ported by the pivoted catch, substantially as and for the purpose described.

4. In a car-coupling, the combination of a draw-head provided at its bottom with a fixed catch, a pivoted catch depending from the 50 top of the draw-head and located above the fixed catch, a car, a transverse rock-shaft journaled on the car and provided at its terminals with handles, and having a centrally-arranged arm and a pair of arms located at 55 opposite sides of the centrally-arranged arm, curved links connecting the pair of arms with the pivoted catch, and connections between the centrally-arranged arm and the top of the car, substantially as described. 60

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN S. COLLISON.

Witnesses:

A. B. JACOBS,

E. W. SLATER.