

No. 624,901.

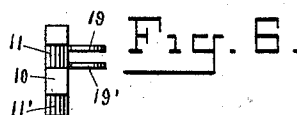
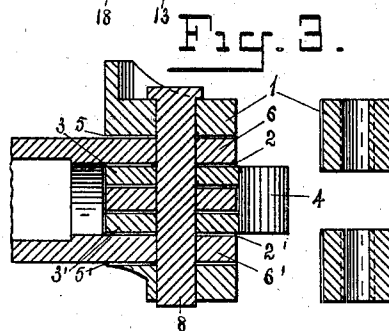
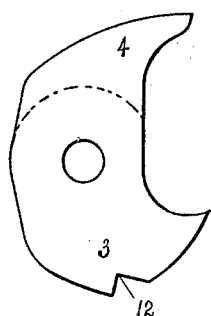
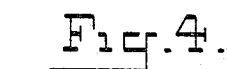
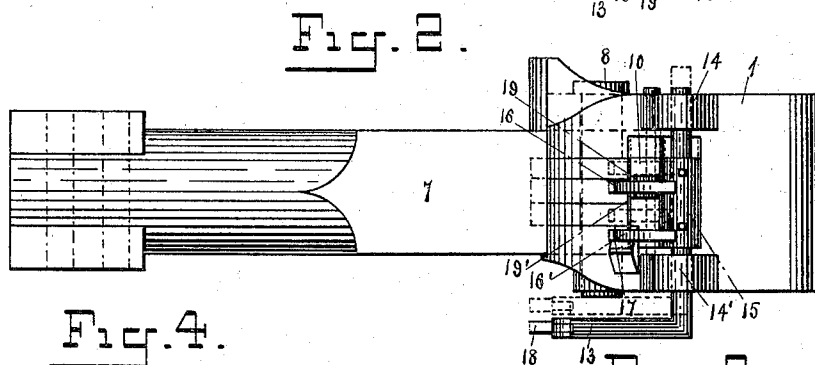
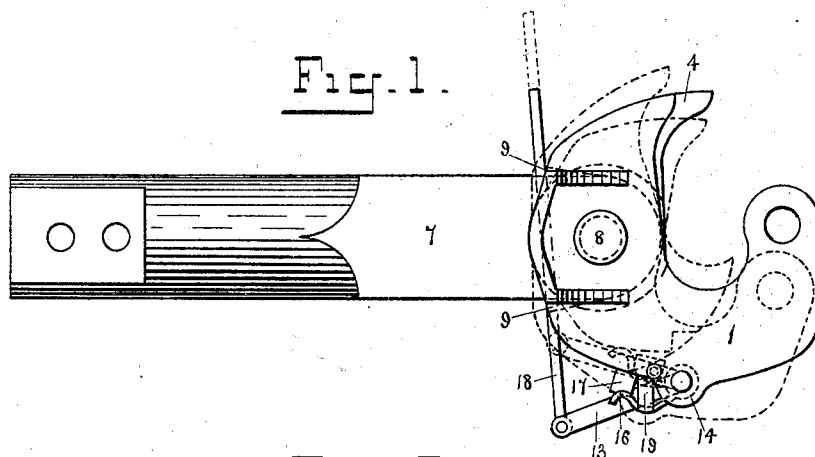
Patented May 16, 1899.

A. J. BEARD.
CAR COUPLING.

(Application filed Mar. 4, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
H. D. Reese
B. Seidel

Inventor
A. J. Beard
 By his Attorney *S. Byrme*

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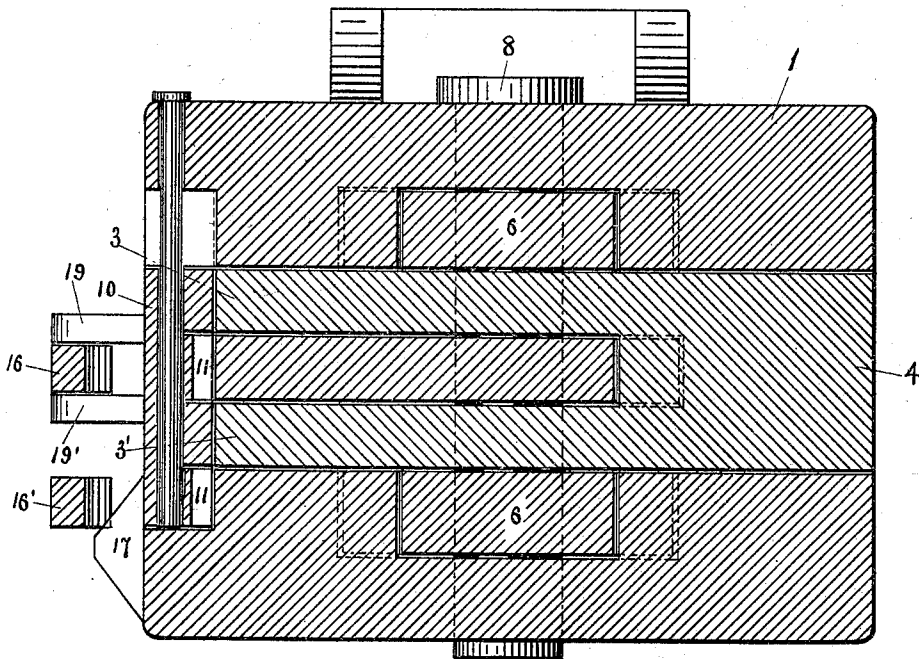
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(Application filed Mar. 4, 1899.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 7.



Witnesses
B. Seaman
H. J. Davis

Inventor
A. J. Beard
By his Attorney P. Byrne

UNITED STATES PATENT OFFICE.

ANDREW JACKSON BEARD, OF EASTLAKE, ALABAMA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 624,901, dated May 16, 1899.

Application filed March 4, 1899. Serial No. 707,766. (No model.)

To all whom it may concern:

Be it known that I, ANDREW JACKSON BEARD, a citizen of the United States, residing at Eastlake, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in that class of car-couplers in which horizontal jaws engage each other to couple the cars; and the objects of my improvements are, first, to provide a car-coupler having the head formed with two jaws pivotally connected to the shank, the jaws when locked together forming a head adapted to slightly swing upon the shank to allow the cars to freely follow a short curve; second, to provide a locking device for a car-coupler, having two jaws pivotally connected to the shank, the locking device being adapted to lock the jaws together when closed and prevent the same from opening by the pull of the cars, and, third, to provide an automatic-locking car-coupler the jaws of which are adapted to swing open in opposite directions to uncouple the cars and to close and lock the same when the cars are pushed together. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my improved car-coupler. Fig. 2 is a side view of the same. Fig. 3 is a vertical sectional view of the head through the center. Fig. 4 is a detail plan view of the locking-jaw. Fig. 5 is a detail side view of the lock-lever. Fig. 6 is a detail side view of the locking device. Fig. 7 is an enlarged transverse cross-section of the draw-head through the axis of the locking-pin 11.

Similar numerals refer to similar parts throughout the several views.

The draw-head 1 is made of any suitable metallic material. Two slots 2 2' are formed therein to receive the tail-wings 3 3' of the locking-jaw 4. Two recesses 5 5' are formed in the head to receive the extending lugs 6 6', formed on the front end of the shank 7, the head and shank being pivotally connected by a pin 8. The recesses 5 5' in the head are

formed tapering on the sides of the shank-lugs, as shown by dotted lines 9 9' in Fig. 1, the taper spaces allowing the head to turn slightly on the shank to round a curve or to couple thereon. The jaws when unlocked are adapted to open in opposite directions to uncouple the cars, as shown by dotted lines in Fig. 1.

The locking device 10 is made of steel or other suitable metallic material. It is formed with a square body having two recesses 11 11' formed therein, the recesses extending sufficiently deep in the body to allow the tail-wings of jaw 4 to swing past the lock when the jaw is opened. The locking device is placed in a recess formed in the side of the head, the recess being made longer than the lock to allow a vertical movement of the same. The lock when resting on the bottom of the recess brings the square part of the body in the notches 12, formed in the tail-wings of jaw 4, and prevents the same from turning to open. If the lock is lifted, it brings the recesses 11 11' in the same plane as the tail-wings and allows the same to swing through the recesses to open the jaw.

The crank-lever 13 is journaled in bearings formed in two extensions 14 14' on the side of the head. The sleeve 15 is secured on the vertical stem of the lever. The sleeve has two extending fingers 16 16' formed on the side thereof. The sleeve operates in a recess formed in the head and is adapted to be moved up and down therein. When the sleeve rests on the bottom of the recess, the lower finger thereof rests on an extension 17, having an inclined upper face formed on the head. The lever when pulled by the draw-rod 18 to the position shown by dotted lines, Fig. 1, slides the lower finger 16' up the incline, thereby raising the lever and sleeve, the upper finger 16 at the same time lifting the locking device 10 by the lugs 19 19', formed thereon. The fingers when lifted to the same plane as the tail-wings of jaw 4 force the same back in the head and open the jaw. When open, the tail-wings extend on the inside of the draw-head jaw. When the cars are pushed together, the incoming head pushes the tail-wings back to place in the head, which brings the notches in the wings to the proper position for locking. The lock and lock-lever fall

by gravity and lock the jaws together. The locking of the jaws does not prevent the head from slightly swinging on its pivot to allow the cars to curve and to couple thereon.

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

1. In a car-coupling, the combination with
10 a head pivotally connected to the shank, of the taper recesses formed in the head on the sides of the shank-lugs to allow the head to swing, a locking device inclosed in a recess
15 formed in the side of the head, the lock adapted to lift and unlock the jaws, and means to operate the locking device, substantially as and for the purpose described.

2. In a car-coupling, the combination of a head adapted to pivot on the shank, a locking device adapted to lift inclosed in a recess
20 formed in the side of the head, a crank-lever journaled in bearings formed on the side of the head, two extending fingers attached to the stem of the lever, the fingers adapted to lift the lock and press the jaws apart in
25 opposite directions substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW JACKSON ^{his} × BEARD.
_{mark}

Witnesses:

LEE COWART,
FRED BRUCHER.