(No Model.)

B. B. BERRY.

CAR COUPLING.

No. 434,858. Patented Aug. 19, 1890.

Fig. 1.

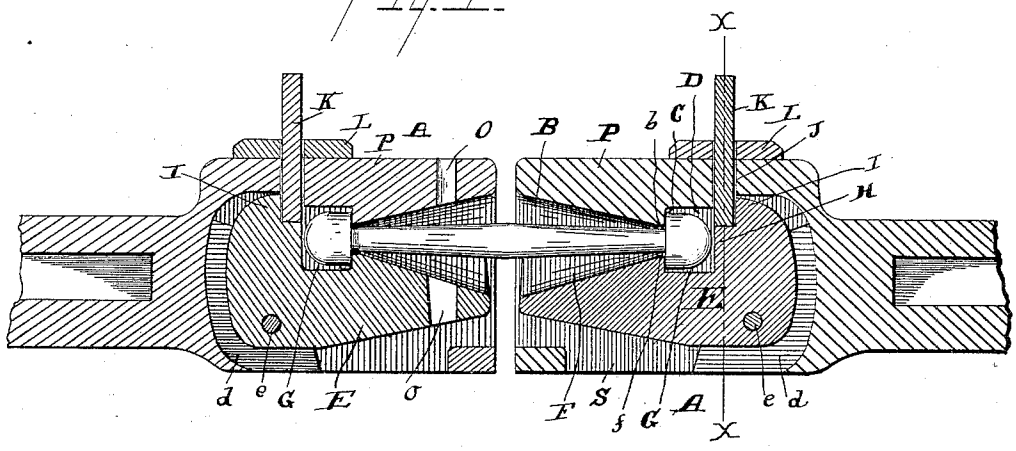


Fig. 2.

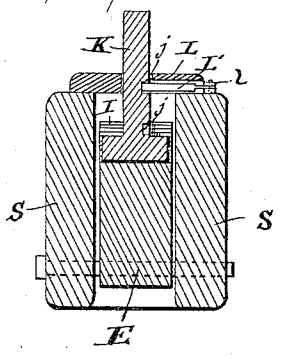
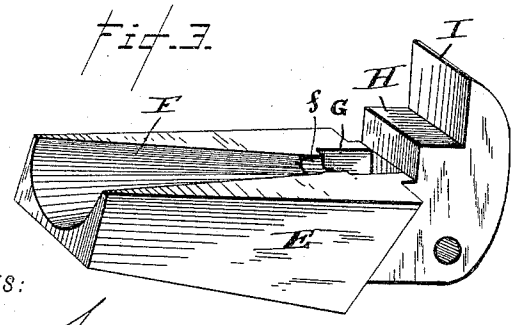


Fig. 3.



WITNESSES:

P. L. Brooks.

Arthur E. Towell

INVENTOR

B. B. Berry.

BY

Alexander

ATTORNEY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BENJAMIN B. BERRY, OF ST. GEORGE'S, SOUTH CAROLINA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 434,858, dated August 19, 1890.

Application filed June 12, 1890. Serial No. 355,118. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN B. BERRY, of St. George's, in the county of Colleton and State of South Carolina, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a vertical longitudinal central section through my improved car-coupling. Fig. 2 is a transverse vertical section through the same on line *x x*, Fig. 1. Fig. 3 is a detail perspective view of the locking-tumbler detached.

This invention is an improvement in car-couplings employing a headed link and locking-tumbler or catch therefor; and it consists in the novel construction and arrangement of parts, as will be hereinafter clearly described and claimed.

Referring to the drawings by letter, A designates a draw-bar head having a top portion P and vertical depending sides S S, but open at bottom, excepting a transverse piece connecting the side portions at the mouth of the draw-bar. The top portion of the draw-bar is semi-conically channeled, as at B, at the mouth of the draw-bar, this channel terminating in a short semi-cylindrical groove *b*. The top is reduced in thickness abruptly at the termination of channel *b*, forming on its under surface and at the end of said channel a shoulder C. In rear of said shoulder a recess D is made in the lower face of the top of the head.

E designates the tumbler or locking-jaw, which is hinged or pivoted at its rear lower end upon a pin *e* passing through openings in the opposite sides of the head and through the jaw. The sides of the head are thickened, as at *d d*, directly below recess D, and between these portions the reduced rear portion of the jaw oscillates and is guided. The front portion of the jaw E is widened to occupy the entire space between the sides S, and the top face of this widened portion is semi-conically channeled, as at F, terminating in a short semi-cylindrical channel *f*, corresponding to and directly opposite and below channels B and *b* in the top. The channel *f* of the jaw opens into a recess G made in the upper face of the jaw, and at rear of this recess the jaw is reduced in thickness, but increased in height, forming an upstanding portion H, which stands above and just in front of the pivot-pin *e*, and in rear of shoulder H and rising above the same is an upstanding horn I, which is rounded at its rear edge and plays in the recess D. The lower rear corner of the jaw is rounded also. An opening J is made in the top just above the portion H of the jaw when the latter is in position, and in this opening rests the T-head of a locking-bolt K, which is confined in the opening by a plate or enlargement L on the top of the head, having an opening for the passage of the stem of the bolt which rises therethrough.

L′ designates a latch playing horizontally through a lateral opening in the enlargement L and operated by a spring-controlled pivoted piece *l*. This latch is adapted to engage notches *j j* in the side of the stem of bolt J and lock the bolt when in a raised or lowered position. When the parts are assembled as shown in Fig. 1, bolt J is raised and the weight of the front portion of the jaw causes it to drop, bringing horn I below opening J, so that bolt K is upheld by said horn. The parts are then ready for coupling with a headed link. The link is an ordinary bolt with enlarged ends similar to those ordinarily used in this class of couplings. The end of the link is introduced into the mouth of the draw-bar and forced inward. The channels B and F direct it properly in its rearward movement until the head passes backward and drops into recess G of the jaw. Then as it is forced farther inward it impinges against the face of portion H and presses the same backward, oscillating the jaw and throwing its front portion upward, catching the link between channels *b f* and preventing the withdrawal thereof, as the head, being larger than the space between said channels when the front of the jaw is raised, catches on shoulder C and the shoulder formed by recess G at the termination of channel *f*, thus securely locking the link against withdrawal and supporting it, but permitting sufficient swing thereto to accommodate the requirements of

travel. As the jaw is oscillated, as described, horn I is moved backward until it passes from beneath opening J, permitting bolt K to drop upon portion H in front of the horn, and consequently preventing the forward movement of the horn and locking the jaw until the bolt be raised out of the way, which is necessary in order to uncouple.

An opening O is made in the front of portion P, and the front of the jaw is provided with an opening *o* made in it just below and opposite opening O, and through these openings an ordinary coupling-pin can be passed to connect with an ordinary loop-link. Suitable rods or chains may be used for operating bolt K from the top and sides of the car to couple and uncouple.

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

1. In a car-coupling device, the combination of the draw-bar head having a shouldered top portion and an oscillating jaw pivoted below said portion and having a channeled front portion, a recess at the end of said channel in its upper face and an upstanding portion in rear of said recess and adapted to be oscillated by the forcible entrance of a headed link, so as to swing its front portion upward and confine the link, and a bolt adapted to engage the upstanding portion of and lock the jaw when oscillated after the entrance of the link, substantially as specified.

2. The combination of the head having a channel B in the front lower face of its top portion and a shoulder in rear of said portion with the oscillating pivoted jaw having a front channeled portion, a recess at the inner end thereof in its upper face, an upstanding portion in rear of said recess and an upstanding horn in rear of said portion, and a locking-bolt adapted to drop in front of said horn and lock the jaw at the proper time, substantially as described.

3. The combination, in a car-coupling, of the draw-bar head having a shoulder C on the lower surface of its top and the oscillating jaw E, having a recess G, an upstanding portion H, and horn I, with a vertically-movable bolt K, playing through an opening in the top of the head and adapted to engage said horn, substantially as described.

4. The herein-described car-coupling for use with headed links, consisting of the draw-bar head having a shoulder C, opening J, and recess D, and the bolt K, playing through opening J, with the oscillating jaw E, having a widened front portion channeled on its upper face, a recess G, upstanding portion H, and horn I, all constructed and arranged to operate substantially as and for the purpose described.

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

BENJAMIN B. BERRY.

Witnesses:
PINK M. MURRAY,
PERRY M. JUDY.