

(No Model.)

W. C. BEAL.
CAR COUPLING.

No. 466,594.

Patented Jan. 5, 1892.

Fig. 1.

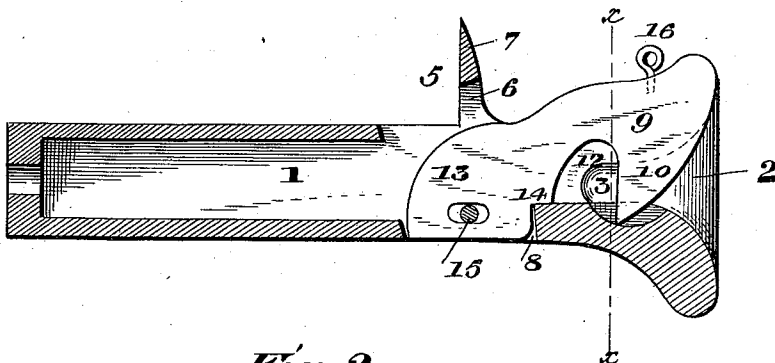


Fig. 2.

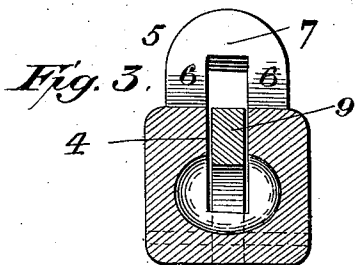
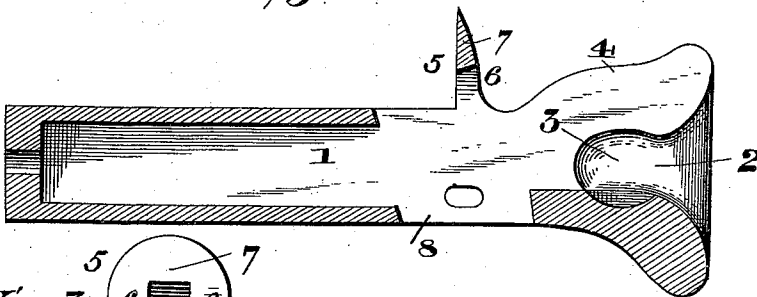
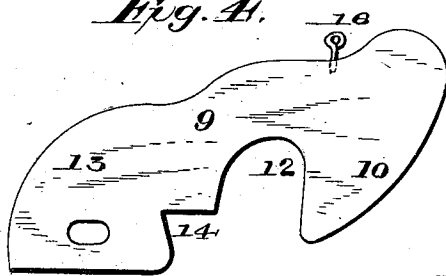


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM C. BEAL, OF FERNANDINA, FLORIDA, ASSIGNOR OF THREE-FOURTHS
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 466,594, dated January 5, 1892.

Application filed April 22, 1891. Serial No. 389,992. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. BEAL, a citizen of the United States, and a resident of Fernandina, in the county of Nassau and State of Florida, 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 of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in car-couplings, whereby the cars are automatically coupled when brought together without the necessity of the brakeman going between the cars.

The object of the invention is to provide a simple, economical, and efficient device for the above purpose which shall possess advantages over and be superior to others of a like character now in use.

The invention consists in the novel features of construction and new combination of parts hereinafter fully described, and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is a central longitudinal section of a draw-head and coupling-hook constructed in accordance with my invention. Fig 2 is a similar view with the hook removed. Fig. 3 is a cross-section on the line *x x*, Fig. 1. Fig. 4 is a view of the coupling-hook detached.

In the said drawings, the reference-numeral 1 designates a draw-head, which may be secured to a car in any ordinary or suitable manner. The front of this draw-head is enlarged and formed with a flaring mouth 2, as usual, so as to allow the link to readily enter the same. In rear of this flaring mouth is a recess 3, which will allow the link inserted therein to have free play, so as to conform to the oscillations of the car. On this upper side the draw-head is provided with a horizontal slot 4, extending from the front of the draw-head a sufficient distance to receive the coupling-hook hereinafter de-

scribed. Intermediate of the ends of the slot the draw-head is formed or provided with a stop 5, consisting of the upwardly-extending portions 6 on each sides of the slot and the transverse portion 7, the latter spanning the slot a short distance above the same. At its rear the slot 4 intersects a vertical slot 8, in which the rear end of the coupling-hook 9 is located. This hook consists of a metal plate formed approximately as shown—that is to say, it has a curved downwardly-depending portion 10, a curved recess 12, and a rear portion 13, which is cut away at its front, forming a shoulder 14, which abuts against the front wall of the vertical slot 8. Passing through apertures in the side of the draw-head and also through an aperture in the rear portion of the coupling-hook, is a pin 15, which forms the pivot of said hook. As will be seen, the aperture in the hook is larger than the pivot-pin, so that the hook can play thereon. A loop or eye 16 is secured to the upper forward end of the hook, to which an operating-chain may be attached for uncoupling or disengaging the hook from the link.

The operation is as follows: The coupling-hook will normally occupy the position shown in Fig. 1. As the cars come together, the link will enter the mouth of the draw-head and, striking the curved hook, will elevate or raise the same. After passing the hook the latter will fall by gravity and engage with the link, thus coupling the cars. The link can be disengaged by means of the chain secured to the loop on the hook, said chain being connected with suitable levers or other operating devices. The stop on the upper side of the draw-head limits the movements of the hook and prevents it from being thrown out of the slot in which it works. It will be noted that there is no strain on the pin which forms the pivot of the hook, it simply serving to hold said hook in place, the entire strain being upon the shoulder in the rear portion of the hook and the front wall of the vertical slot in the draw-head, the aperture in the hook being made larger than in the pivot-pin, so as to allow the hook to play therein for this purpose.

Having thus described my invention, what I claim is—

In a car-coupling, the combination, with a draw-head having a flaring mouth, an enlarged
5 recess in rear thereof, a horizontal slot, a vertical slot intersecting the same, and a stop intermediate of the ends of the horizontal slot, of a coupling-hook pivoted in said vertical slot and having a curved downwardly-
10 depending portion, a curved recess, and a rear portion having a shoulder formed on its front

adapted to abut against the front wall of said vertical slot, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature 15 in presence of witnesses.

WILLIAM C. BEAL.

Witnesses:

S. CARRIO,
G. W. MURPHY,
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