(No Model.)

C. S. PARK.

CAR COUPLING.

No. 567,770. Patented Sept. 15, 1896.

Fig. 1.

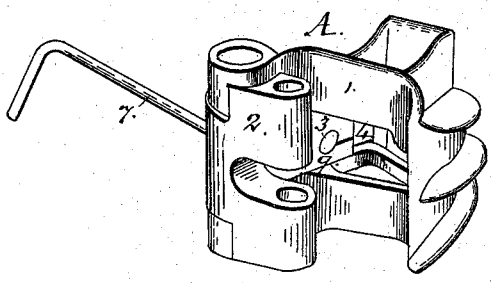


Fig. 2.

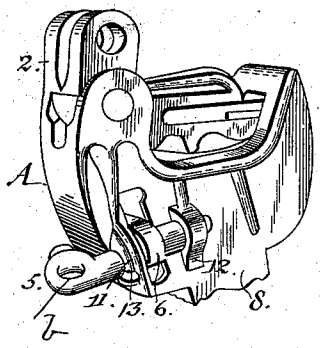


Fig. 3.

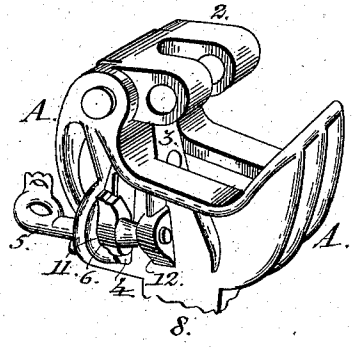


Fig. 4.

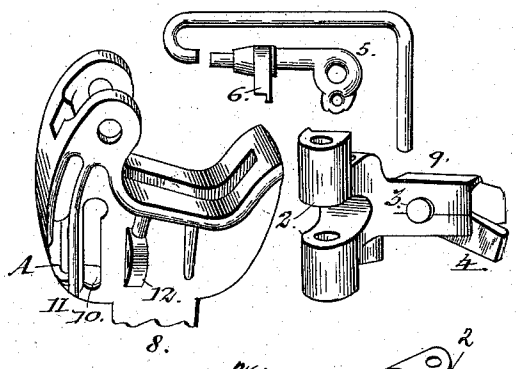


Fig. 5.

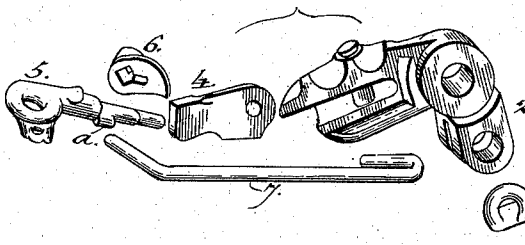
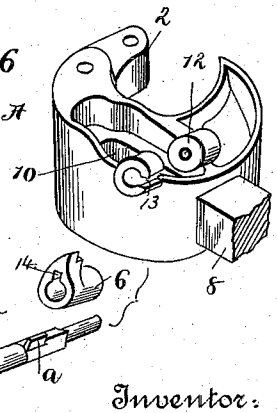


Fig. 6



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

UNITED STATES PATENT OFFICE.

CHARLES S. PARK, OF MONTAGUE, MASSACHUSETTS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 567,770, dated September 15, 1896.

Application filed October 8, 1895. Serial No. 565,028. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. PARK, a citizen of the United States, residing at Montague, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Car-Couplings; 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 present invention is an improvement on a previous invention, Letters Patent for which were granted to me August 22, 1893, No. 503,615. In this patent is involved the principle of locking the movable jaws or knuckles of the coupling by means of a gravity-pawl, which enters a slot formed in the under side of the draw-head. The pawl in said coupling is pivoted to a tailpiece which is a part of the jaws of the draw-head. Another feature of the said patent is a cam which forms a part of the bolt used to unlock said jaws, by means of a lever, &c. In my present application I show and describe an improved form of draw-head, and although I do not change the principle in locking or unlocking the coupler, I have made important improvements in the means of coupling and uncoupling, and for these improvements I now make application for Letters Patent.

In the drawings illustrating my invention, Figure 1 is a perspective view showing chiefly the front of the device. Fig. 2 is a similar view showing principally the under side of the device, the jaw or knuckle being open, the locking-latch in the tailpiece of the knuckle in front of the guard-arm, and the position of the cam as engaged with the locking-latch. Fig. 3 is a perspective view showing the under side of the device with the knuckle or jaw and the latch as when locked, the unlocking feature being free from said latch. Figs. 4 and 5 are perspective views of the draw-head and the several parts connected with it as detached. Fig. 6 is a perspective view showing the key or tongue *a* and its relation to the bearing or or loop 11 and the cam-slot 14.

In the drawings similar reference-numerals indicate like parts in all of the figures.

Referring to the drawings, 1 is the draw-head, of crescent form, having the shank 8 as a part of it, which is to be connected with the car structure in the usual manner, the usual springs being in practice used to modify shock, &c.

2 is the movable jaw or knuckle, connected to the draw-head proper with a pin, thus forming a hinge-joint. This knuckle or jaw has a tailpiece 9. A slot is formed in said tailpiece to receive a countersunk latch 4, pivoted with a pin or rivet 3. A slot 10, adapted to receive the latch 4, is provided for the play of the unlocking-cam, as well as the latch described.

In the bottom or under side of the draw-head are formed loops or bearings 11 12 to receive the bolt 5. The bolt 5 consists of a bar partly cylindrical and partly square, or angular, and projecting from an angle of its square portion is a key or tongue *a*, which slides into a groove 13, formed in the bearing or loop 11, and fits into a slot 14, formed in the side of the cam 6. Cam 6 and bolt 5, as shown in the drawings, are separable. The bolt 5 has an eye 6 on its outer end adapted to receive the link of a chain which may hold the coupler-head from dropping in case its shank should be broken.

The operation of the coupler is as follows: We will suppose the coupler to be open to receive the link or catch of an approaching car to be coupled. When the link or catch comes in contact with the tailpiece of the jaw or knuckle, the said knuckle is revolved about its axis about ninety degrees, when it is stopped by the side wall of the draw-head, and immediately the locking-latch falls into the slot 10 to lock the knuckle to position. In order to open the jaw, the stem 7 (shown in drawings detached) is employed to revolve the bolt 5 about ninety degrees to bring the cam into bearing against the latch 4, and carry said latch out of the slot 10 of the draw-head, thus unlocking the knuckle and giving it freedom of movement.

In the drawings I show the outer end of the bolt as adapted for the use of the stem 7, although an arm and a bolt attached thereto might be used to revolve the bolt 5, if desirable.

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

1. The combination with the draw-head,

having a suitable cavity and a slot in its bottom wall, as described, of the hinged knuckle or jaw provided with the tailpiece, the latter having a slot in its under side, the gravity-latch pivoted in the slot of the tailpiece adapted to drop and engage the slot of the draw-head, and means substantially as described for releasing said gravity-latch through the said slot of the draw-head, as and for the purpose set forth.

2. The combination with the draw-head described provided with two bearing-loops on its under side, one of which is formed partly open, of the bolt provided with a key or tongue and the cam fitted to said bolt provided with a slot or groove by which said key or tongue is engaged, as and for the purpose set forth.

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

CHARLES S. PARK.

Witnesses:
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