(No Model.)

# J. JACKSON.

## CAR COUPLING.

No. 545,162. Patented Aug. 27, 1895.

*Fig. 1.*

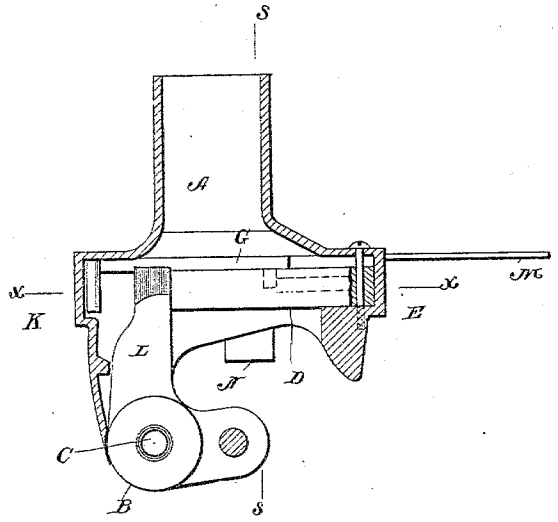



*Fig. 2.*

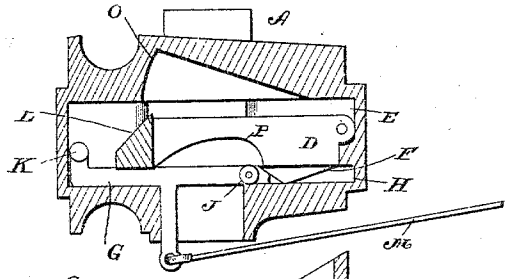
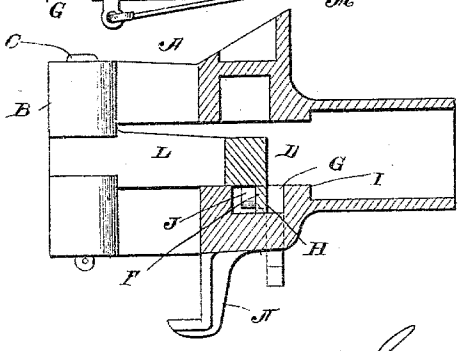



*Fig. 3.*

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# UNITED STATES PATENT OFFICE.

JAMES JACKSON, OF MANSFIELD, OHIO.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 545,162, dated August 27, 1895.

Application filed October 25, 1894. Serial No. 526,916. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES JACKSON, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Car-Couplings; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in car-couplings; and the objects of my invention are, first, to construct a car-coupling of the class having a knuckle-hook pivoted in a suitable draw-head; second, to so construct the coupling that the operator can readily operate the lever mechanism for uncoupling the car from the side of the car; third, to so construct and arrange the mechanism that the cars can be forced together without coupling when necessary; fourth, to so construct and arrange the mechanism that the operator can from the side of the car move out the knuckle-hook to the proper position for coupling; fifth, to so arrange the draw-head that if one should be broken from the car it will remain in position in the draw-head attached to the other car, obviating all danger of the head falling upon the track and throwing the cars from the rails; sixth, to make a cheap, durable, and efficient means for the purpose stated.

My invention I have fully illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of my invention, showing the general construction of all its parts. Fig. 2 is a transverse sectional view of same, taken in line *x x*, Fig. 1. Fig. 3 is a side view of my improved car-coupling, showing part in section and taken in line *s s*, Fig. 1.

Similar letters refer to similar parts throughout the several views.

In the accompanying drawings, A indicates a coupler-head or draw-head, which is from the design adopted by the Master Car Builders; B, knuckle-hook, which is pivoted within the coupling-head by the pin C. This portion of the coupling is old and known to the arts, and is now in general use.

D indicates a latch, which is pivoted or hinged at its outer end in the recess E, formed in the coupler-head. The said latch is provided upon its under side and at its rear edge with a wedge-shaped flange or cam F.

G indicates a slide, which is placed within a groove H formed in the base or lower part of the coupler-head. The upper edge of the said slide is on a line with the base I, so that the inner end of the knuckle-hook B will pass over the same. The said slide is provided with a stud and roller J projecting from its face and on a line with the under side of the latch D and in line with the wedge-shaped cam F. The inner end of the slide G is provided with the pin K, which is a part of the said slide, and is so constructed that it will line with the center of the back of the lever L, forming part of the knuckle-hook B. The object of the pin K is for the purpose of forcing the knuckle-hook in position to couple. The slide G can extend through the side of the head A, as shown in Fig. 1, or an arm forming part of the said slide can project downward through a slot formed in the lower part of the head, and to which is attached the connecting-rod M to operate the same, as shown in Figs. 2 and 3. This is preferable, as it throws the connecting-rod lower down, and the opening made for the reception of the same would not admit water or snow, and would obviate all danger of freezing in winter. The object of the slide G will be more fully described in the operation.

N indicates an L-shaped bracket, which may be secured to or form part of the lower part of the coupler-head. The object of the said bracket is for the purpose of holding a coupling-head in position should one become detached or broken from the car when in motion, and obviate all danger of the head falling upon the track, throwing the cars from the rails, which is of common occurrence when a coupler-head is broken.

Operation: When the operator wishes to uncouple a car, he draws upon the connecting-rod M, attached to the slide G. This movement draws the slide longitudinally and forces the roller J under the wedge-shaped cam F, raising the loose end of the latch D

above the top of the knuckle-hook arm L, allowing the same to swing upon the pivot-bolt C when the cars are drawn apart. The loose end of the latch D passes into the recess O, formed in the upper part of the coupler-head, and remains in that position until the slide is forced back from under the cam F. Should the cars be detached and the knuckle-hook locked the operator draws upon the connecting-rod and slide, the roller J raises the latch to its highest position, then the pin K comes in contact with the back of the arm L, forcing the same outward and placing the knuckle-hook in position to couple. When the operation of coupling takes place, the end of the lever L is forced into the curved opening P formed in the face of the latch D, raising the same. When the end of the lever passes the end of the latch, it drops by its own weight, locking the lever, as shown in Fig. 1. Should the latch be raised to its highest point the back of the lever L comes in contact with the pin K, forcing the slide G into its normal position, allowing the latch to fall, locking the knuckle-hook.

Those skilled in the art will readily understand the construction and operation of the invention.

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

A car coupling consisting of the draw head having the recessed wall, the coupling lever pivoted to the draw head, the pivoted latch, the cam bearing against the latch, the slide having the angular arm to receive the operating cord or rod, and the roller carried by the slide for engaging the cam.

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

JAMES JACKSON.

Witnesses:

WM. MCE. WELDON,

EMMA E. BOWMAN.