

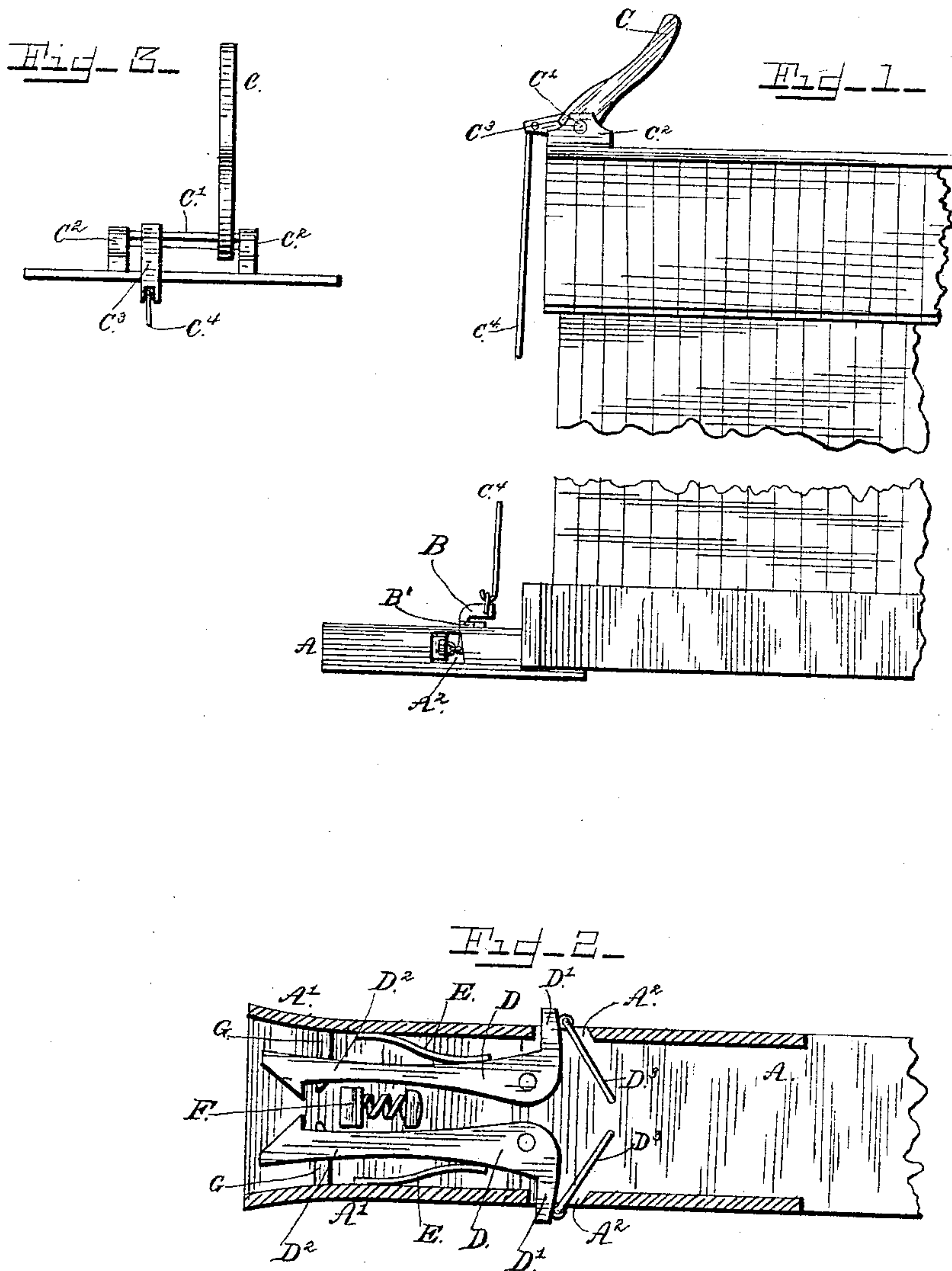
(No Model.)

J. W. JOHNSON.

CAR COUPLING.

No. 328,785.

Patented Oct. 20, 1885.



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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 328,785, dated October 20, 1885.

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To all whom it may concern:

Be it known that I, JOHN W. JOHNSON, a citizen of the United States, residing at Pendleton, in the county of Warren and State of Missouri, 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 and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in the construction and operation of car-couplings; and it consists in certain novel features hereinafter fully described, and specifically pointed out in the claims.

In the drawings hereto annexed, Figure 1 shows my improved coupling, in side elevation, in position on a car. Fig. 2 is a horizontal longitudinal section of the coupling, and Fig. 3 is a detail front view of the operating-lever.

A designates the draw-bar, which is secured to the end of the car, as shown. The sides A' A' of the draw-bar are provided with openings A² A², through which the ends of the coupling-hooks project. The top of the draw-bar is provided with an opening through which one arm of the L-shaped lever B projects downward. This L-shaped lever B is pivoted upon a plate, B', provided upon the top of the draw-bar. It is secured in such a position that its vertical arm projects downward into the draw-bar, and its horizontal arm extends backward toward the car.

The operating hand-lever C is rigidly secured upon a shaft, C', which is journaled in suitable supports, C² C², secured upon the roof of the car. The hand-lever C is secured to the shaft C' near one end, and near the opposite end of the said shaft I secure a short lever, C³, the free end of which is connected to the inner end of the horizontal arm of the L-shaped lever B by a rod, C⁴, as shown.

I use the ordinary spear-head link and hold it in the draw-head when cars are coupled by the coupling-hooks D D. These hooks are L-shaped, being pivoted at the junction of the arms, the shorter arms D' projecting through the openings A² in the sides of the draw-head, and the longer arms D² extending forward to near the mouth of the draw-

head. The short arms D' are connected to the lower end of the vertical arm of the L-shaped lever B by rods or links D³ D³. The front or outer ends of the coupling-hooks D are made of proper shape to engage and hold the spear-head links as the same enter the draw-head in the operation of the coupling.

Springs E E are placed between the coupling-hooks and the sides of the draw-bar and press the coupling-hooks toward each other, thus keeping them always in engagement with the link C when it is inserted between them, and preventing the releasing of the link, except as hereinafter described.

Between the two coupling-hooks I place a buffer, F, which prevents the link being inserted too far in the draw-head in the operation of coupling.

Guide-pins G are secured in the sides of the draw-head, and project inward through slots in the coupling-hooks D. These guide-pins keep the link in the middle of the draw-bar and prevent its being shoved to one or the other side, thus insuring a perfect coupling.

To couple the cars the link is inserted in the draw-head between the two coupling-hooks D, and will be engaged and held by them. To uncouple the cars the lever C is pushed downward. It will be seen that this causes the short lever C³ to swing upward, and this upward motion will be transmitted directly to the lever B through the connecting-rod C⁴. The motion thus given to the lever B will cause it to pull on the short arms of the coupling-hooks, and they will thereby be made to swing around inward, and the longer arms consequently will swing apart and the link will be withdrawn by the other car.

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

In a car-coupling, substantially as shown and described, the combination, with the coupling-hooks, of a buffer placed between the hooks, and guide-pins secured in the draw-head and projected through slots in the coupling-hooks, substantially as set forth.

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

JOHN W. JOHNSON.

Witnesses:

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