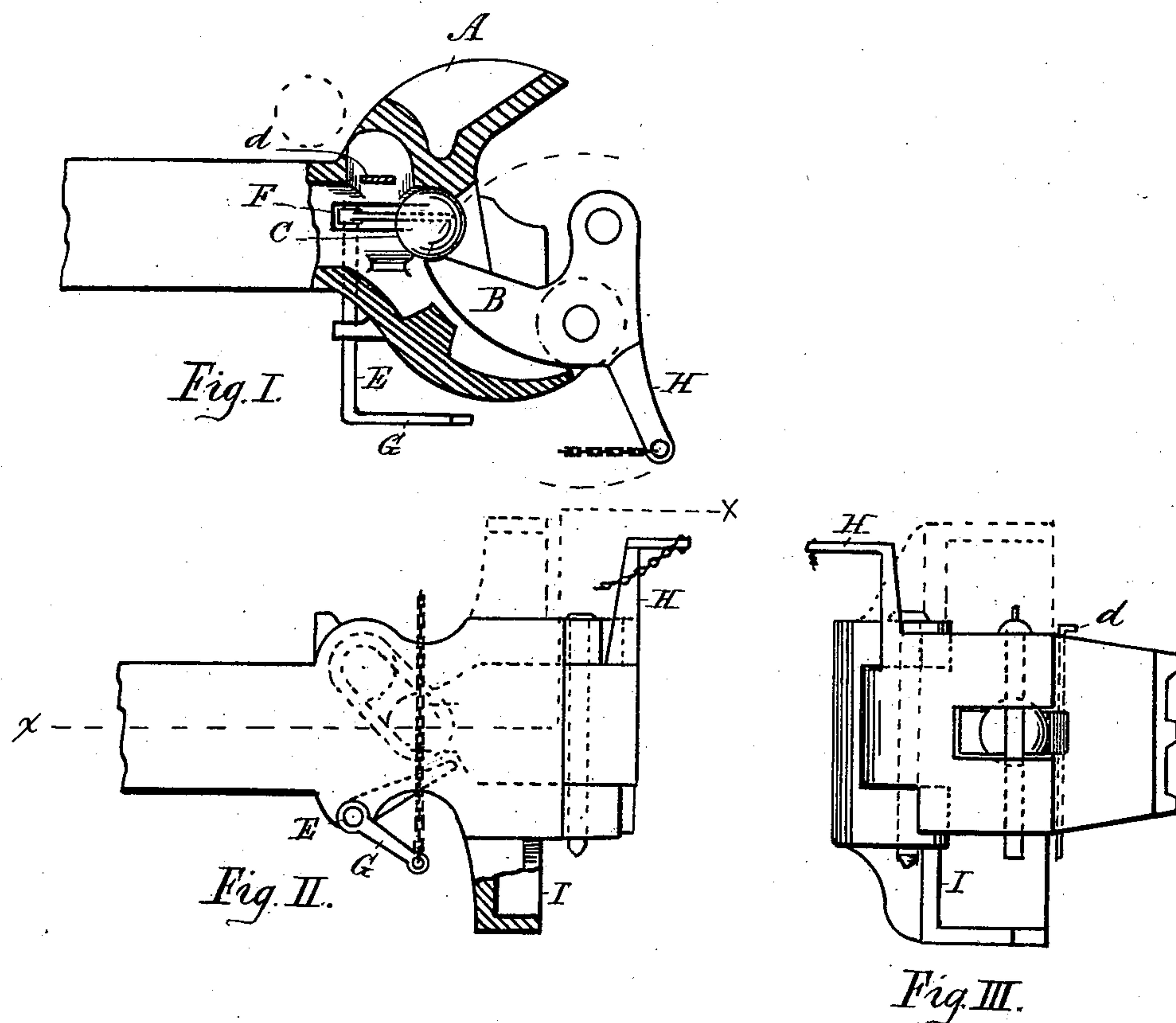


(No Model.)

J. W. FAWCETT.  
CAR COUPLING.

No. 602,029.

Patented Apr. 5, 1898.



Witnesses,

R. S. Millar  
L. M. Adams

Inventor,

John W. Fawcett.  
By J. Bailey

# UNITED STATES PATENT OFFICE.

JOHN WILLIAM FAWCETT, OF LAWRENCEBURG, INDIANA, ASSIGNOR OF  
TWO-THIRDS TO JOHN N. FOX AND JOHN BAMART, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 602,029, dated April 5, 1898.

Application filed October 14, 1897. Serial No. 655,116. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WILLIAM FAWCETT, a citizen of the United States, residing at Lawrenceburg, in the county of Dearborn and State of Indiana, have invented a new and useful Improvement in Car-Couplers, which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 is a horizontal section, on line  $x x$  in Fig. 2, of my improved car-coupler; Fig. 2, a side elevation of the same, and Fig. 3 a front elevation.

My invention relates to certain improvements in side car-couplers; and my main object is to adapt a ball to gravitate within a downwardly-inclined chamber in such a position as to lodge directly in the path of the locking-knuckle and rigidly hold the same. Means are also provided whereby the ball may be thrown up backwardly within the inclined cavity, and thereby give clearance to the outward swing of the knuckle in the operation of uncoupling.

25 A further improvement consists in providing an arm integral with the swinging block or connected with the same, said arm projecting laterally in relation to the pivotal point and affording means whereby the knuckle may be swung open without interposing the hand between the jaws and incurring great danger as well as inconvenience.

The peculiar features and special advantages of the device will be apparent by referring to the accompanying drawings, in which A represents the draw-head, B the swinging knuckle, and C the ball, the inclined cavity for which is indicated by dotted lines in Fig. 2. A lateral curved opening leads 40 out from the upper portion of the ball-cavity through the side of the draw-head, and the ball is thus introduced. In order to prevent the possibility of the ball being jostled out of the cavity, a vertical pin  $d$  is passed through 45 an opening provided for the purpose. A rock-shaft E is transversely journaled beneath the cavity and an arm F projects forwardly and upwardly through a slot-opening and engages under the ball. The said shaft 50 is actuated by an arm G, which may have a chain connection to any convenient point.

H indicates the arm by which the knuckle B is swung, as aforesaid.

I represents an integral stirrup-shaped projection depending from either the top or bottom of the draw-head, the purpose of which is to prevent the dropping of the adjacent draw-head in case the housing-support should by chance give way. The dotted lines above Figs. 2 and 3 indicate how the said stirrup 60 projection may be formed to serve the same purpose. Either or both forms may be used, if desired.

The ball normally lies in the lower forward limit of the inclined cavity. In the process 65 of uncoupling the rock-shaft E is operated by its arm and chain or by hand and the arm F throws the ball upwardly to the rear of the cavity, allowing the nose of the knuckle to swing outwardly, the ball meanwhile being 70 free to roll to its initial position. In the coupling process the inward swing of the knuckle crowds the ball backwardly, and it instantly resumes its locking position, as shown in Fig. 1.

What I claim as new is—

1. In a car-coupler, the combination with the draw-head, formed with an inclined cavity with a lateral opening at one end, the ball located in said cavity, the vertical pin passing through an opening in the draw-head, the rock-shaft journaled below said cavity and provided with an upwardly and forwardly extending arm, of the knuckle formed with a rearwardly-extending arm adapted to engage 85 with said ball, substantially as described.

2. In a car-coupler, the combination with the draw-head formed with an inclined cavity, a lateral curved opening intersecting the same, the ball located in said cavity, the vertical pin for holding said ball in place, the rock-shaft, the forwardly and upwardly extending arm, and the stirrup-shaped projection at the front of the draw-head, of the pivoted knuckle having a rearwardly-extending 95 arm adapted to engage with said ball, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand, this 21st day of September, 1897, in the presence of witnesses. 100

JOHN WILLIAM FAWCETT.

Witnesses:

C. J. LANG,  
JOHN BAMART, Jr.