

No. 612,469.

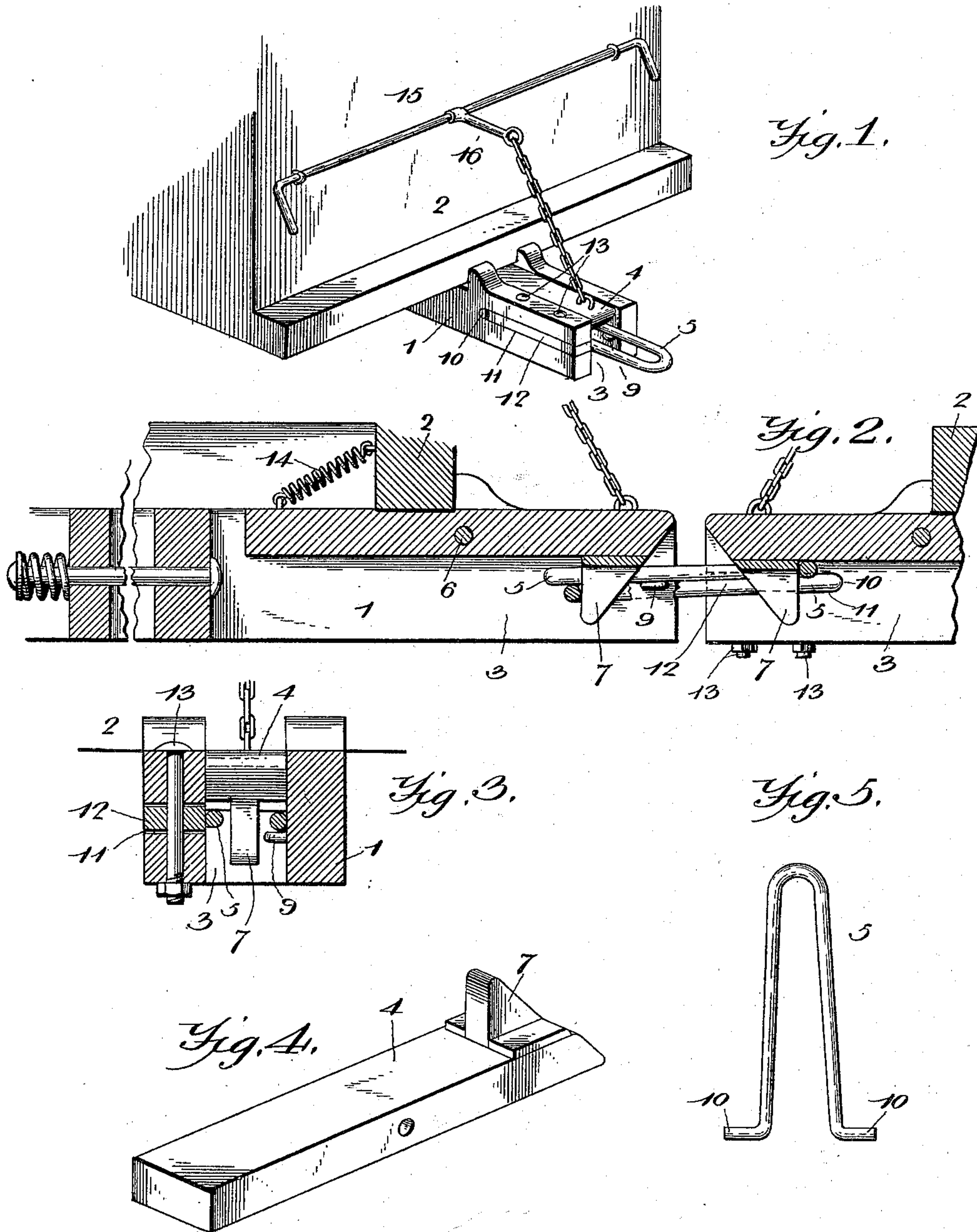
Patented Oct. 18, 1898.

J. H. WHITFIELD.

CAR COUPLING.

(Application filed Apr. 6, 1898.)

(No Model.)



Witnesses
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By His Attorneys,

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UNITED STATES PATENT OFFICE.

JAMES H. WHITFIELD, OF OCALA, FLORIDA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 612,469, dated October 18, 1898.

Application filed April 6, 1898. Serial No. 676,694. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. WHITFIELD, a citizen of the United States, residing at Ocala, in the county of Marion and State of Florida, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

10 The object of the present invention is to improve the construction of car-couplings and to provide one which will be simple, inexpensive, strong and durable, and adapted to be readily applied to railway-cars without necessitating any alteration in the construction thereof and which will be capable of coupling with the ordinary forms of car-couplings.

20 A further object of the invention is to provide a car-coupling capable of coupling automatically and adapted to be readily uncoupled without going between the cars.

25 The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

30 In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention and shown applied to a car. Fig. 2 is a longitudinal sectional view of the same, showing two draw-heads coupled. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of a pivoted hook. Fig. 5 is a detail view of the link.

35 Like numerals of reference designate corresponding parts in all the figures of the drawings.

40 1 designates a draw-head mounted on a car in the usual manner and provided with a longitudinal opening 3, receiving a pivoted hook 4 and a pivoted link 5. The hook, which extends to the outer end of the draw-head, has its upper face flush with the upper face of the sides of the same, and its shank is pivoted between its ends by a transverse pin 6, passing through the shank and the sides of the draw-head. The front end of the hook is provided with a depending engaging portion 7, extending downwardly between the sides of the link 8 and adapted to couple with the link of a corresponding draw-head, as

clearly illustrated in Fig. 2 of the accompanying drawings.

55 The link, which is U-shaped, projects beyond the draw-head and is supported in a horizontal position for guiding it into engagement with another car-coupling by a projection 9, extending from the inner face of one of the sides of the draw-head, and the said link is retained upon the projection or support 9 by the hook 4, which presses the link downward.

60 The inner terminals of the sides of the link are bent laterally to provide projecting pivots 10, which are arranged in suitable bearings on the sides of the draw-head. One side of the draw-head has a perforation to receive the adjacent pivot of the link, and the other side of the draw-head is provided with a horizontal slot 11, in which is secured a plate or block 12 to retain the pivot of the link at the inner end of the slot. The inner end of the slot 11 forms a bearing for the pivot of the link, and the plate or block, which has its inner end grooved to complete the bearing, is secured to the draw-head by a pair of vertical bolts 13, passing through perforations of the draw-head and the plate or block and provided at their lower ends with nuts.

80 The front portion of the hook is retained in engagement with a link by means of a coiled spring 14, connected with the rear portion of the shank of the hook and with the frame of the car; but any other suitable form of spring may be employed for accomplishing this result.

85 The operation of uncoupling is performed from the sides of the car by a transverse rock-shaft 15, journaled in suitable bearings of the car, provided at its ends with handles, and having a centrally-arranged arm 16, which is suitably connected with the outer portion of the hook, whereby when the rock-shaft is partially rotated the said hook will be lifted out of engagement with the link. By this construction it is unnecessary for a person to go between cars to uncouple them, and the engaging portion of the hook has a beveled front edge and is adapted to be readily lifted by a link entering the draw-head, whereby two cars are coupled automatically.

100 The draw-head, which is cushioned in the usual manner, is designed to be connected

with the draft mechanism of a car by means of an ordinary tail pin or bolt, and in the event of breakage it may be readily replaced by a new draw-head.

5 The invention has the following advantages:

The car-coupling, which is simple and comparatively inexpensive in construction, possesses great strength and durability, as the
10 links and hooks of two draw-heads form a double coupling, and in the event of the breakage of one of the links or hooks the car will remain coupled, one hook and link being designed to have sufficient strength to provide an efficient coupling.

15 The operation of the coupling is automatic, and it is unnecessary to go between cars to uncouple them, so that all danger of injury resulting from going between cars to couple and uncouple them is obviated.

20 The link and the hook are permanently mounted on the draw-head and cannot become separated therefrom and lost, thereby reducing the expense of maintaining car-couplings on cars in proper condition.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

30 What I claim is—

1. In a car-coupling, the combination of a draw-head having a longitudinal opening and provided with a projection arranged within the opening and forming a support, a link
35 carried by the draw-head, pivoted within the longitudinal opening of the same in rear of the projection, said link being extended in advance of the draw-head, and a hook also carried by the draw-head, pivotally mounted
40 in the said opening and resting upon the upper face of the link and holding the same upon the projection or support, substantially as described.

2. In a car-coupling, the combination of a

draw-head provided with a support, a link 45 carried by the draw-head, pivoted to the same in rear of the support and extending beyond the draw-head, and a hook also carried by the latter and pivotally mounted on the same, said hook resting upon the upper face of the 50 link and holding the latter upon the support and provided with an engaging portion to interlock with the link of another draw-head, substantially as described.

3. In a car-coupling, the combination of a 55 draw-head provided with a longitudinal opening and having a bearing perforation at one side thereof, the other side of the draw-head being provided with a longitudinal slot, a link having pivots at the inner ends of its sides, 60 extending outward and arranged in the said perforation and in the slot of the draw-head, a plate detachably secured in the slot of the draw-head and retaining the link in position, a support arranged within the opening of the 65 draw-head and located beneath the link, and a hook pivoted between the sides of the draw-head and bearing upon the link, substantially as described.

4. In a car-coupling, the combination with 70 a draw-head provided with a longitudinal opening, of a link pivoted in the opening of the draw-head and carried by the latter, a hook also pivoted in the same draw-head at a point between its ends and having its front 75 portion engaging the upper face of the link to maintain the same in a horizontal position, and a spring connected with the inner portion of the hook, substantially as and for the purpose described. 80

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

JAMES H. WHITFIELD.

Witnesses:

ROB. B. PEARSON,
JNO. E. BAILEY.