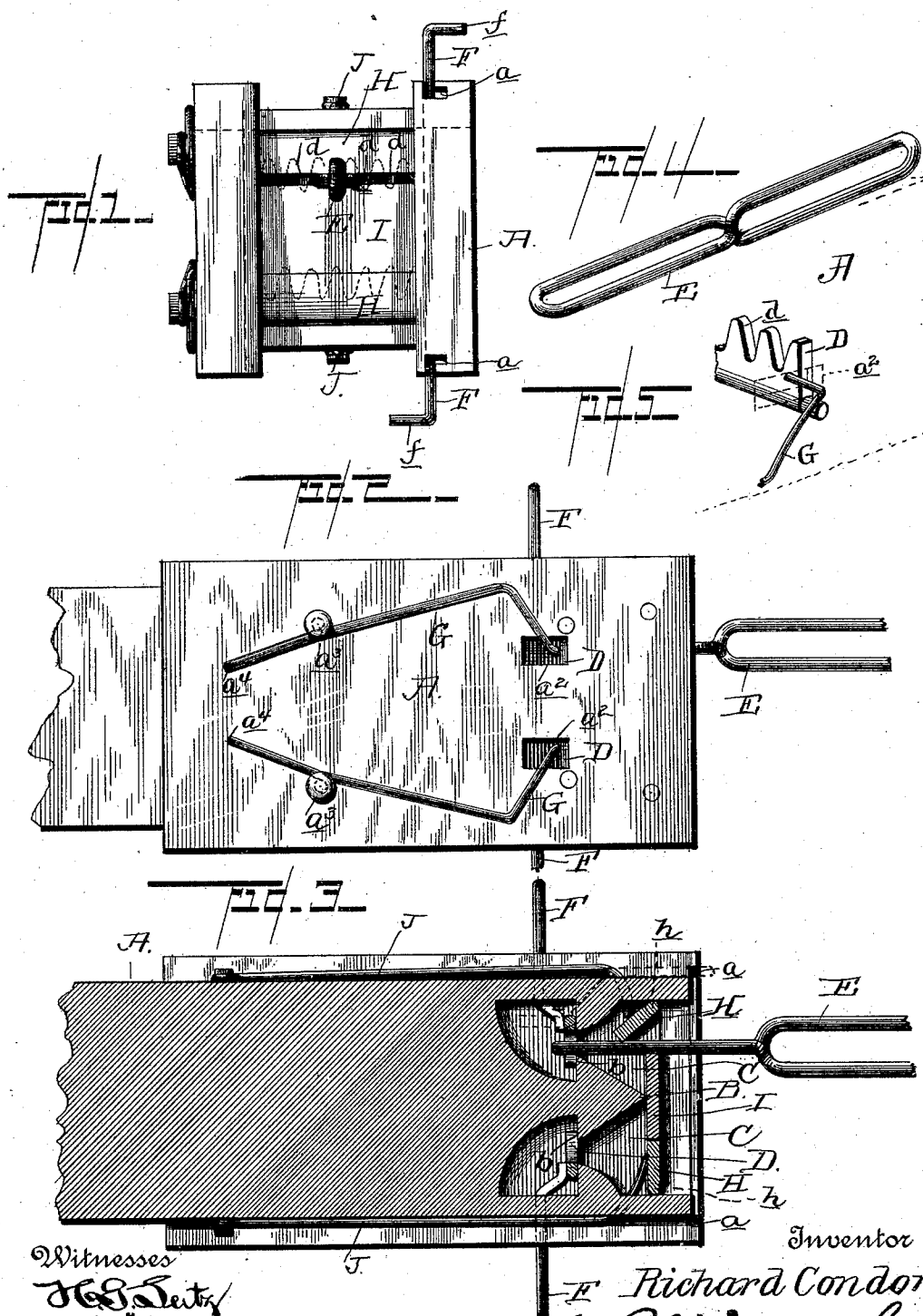


(No Model.)

R. CONDON.
CAR COUPLING.

No. 474,815.

Patented May 17, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

RICHARD CONDON, OF LYONS, IOWA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 474,815, dated May 17, 1892.

Application filed January 29, 1889. Serial No. 298,024. (No model.)

To all whom it may concern:

Be it known that I, RICHARD CONDON, a citizen of the United States, residing at Lyons, in the county of Clinton and State of Iowa, have
5 invented certain new and useful Improvements in Car-Couplers; 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 ap-
10 pertains to make and use the same.

This invention relates to car-couplers.

The object of the invention is to produce a simple and cheap coupling of such form as to render it capable of coupling automatically
15 with a high or low coupler-head on an adjacent car.

Furthermore, the object is to produce a car-coupling in which the opening in the draw-head is protected by yielding plates, which
20 serve both to guard the opening and to guide the coupling-link to the proper position to effect coupling.

Furthermore, the object is to produce a coupling in which the joining may be accom-
25 plished at whatever angle the link enters the draw-head, thus rendering it possible and easy to couple the cars on a curve, if desired.

With these objects in view the invention resides, essentially, in a car-coupler consist-
30 ing of a bar having a series of projections sufficiently distant from one another to allow the entrance between them of the coupler-link, a spring bearing upon the bar, intended to retain the bar in an upright position, and a rigid
35 arm or lever connected with the bar and projecting outside of the draw-head, whereby the link may be released or the coupling placed in a position which will not allow of its being coupled.

Furthermore, the invention resides in yield-
40 ing plates or doors arranged in the front of the draw-head and provided upon one or more of their adjacent faces with notches or indentations, which serve to guide the link to a
45 position to be entered by the projection upon the bar, and, furthermore, the invention resides in various novel details of construction whereby the objects are attained.

I have illustrated the invention in the ac-
50 companying drawings, in which—

Figure 1 is an end view of a draw-head em-

bodifying my invention; Fig. 2, a side elevation; and Fig. 3 is a longitudinal section showing the internal disposition of the parts. Fig.
4 is a perspective detail view of the coupler- 55 link. Fig. 5 is a detail perspective view of one end of the lower locking-jaw, showing the spring in engagement therewith for keeping it in its closed position.

In the drawings, A designates a draw-head, 60 the outer end of which is recessed and is divided by an arrow-headed cross-bar B into two chambers C C, each containing the same mechanism for engaging the coupler-link and subserving the purpose of permitting the coup- 65 pling being made either with the high or low coupler-head on an adjacent car. As the construction of both the chambers and their in- closed mechanisms is the same, as above stated, the following description will be confined to 70 one of them.

Within the chamber C is pivoted a locking-
jaw D, having one of its edges provided with a plurality of teeth or projections *d*, arranged at such a distance apart as to permit of the 75 coupler-link E resting between them. To the locking-jaw is secured one end of a lever F, which extends a sufficient distance beyond the draw-head to bring it within convenient reach, and at its free end terminates with an 80 arm *f*, designed to be brought into engagement with a recess *a* on the draw-head, whereby to hold the locking-jaw in the open position shown in dotted lines in Fig. 3, and thus leave an unobstructed passage for the incom- 85 ing coupling-link. When in its closed or operative position, the locking-jaw bears against shoulders *b*, formed, respectively, on the cross-bar B and at the mouth of the chamber, so that all strain from the coupler-link is prac- 90 tically removed from the locking-jaw and is borne by the said shoulders. The locking-jaw is held against the shoulders *b* by means of a spring G, one end of which is inserted in an aperture *a*² in the draw-head and bears 95 against the inner face of the locking-jaw, as clearly shown in Fig. 5, the free end being passed around a screw or projection *a*³ and then through an opening *a*⁴ in the draw-head.

In order to protect the chamber and its 100 mechanism from injury caused by the entrance of extraneous substances, such as dust,

gravel, or the like, I provide the mouth of the chamber with a yielding gate or flap H, pivoted, as at h, to the draw-head. The free edge of the gate is arranged to engage the edge of a rigid cross-bar I, whereby to seal the chamber, which cross-bar also serves to guide the coupler-link to its proper position with relation to the locking-jaw. The gate is actuated to close automatically upon the removal of the coupler-link by means of a spring J, which bears against the gate and is secured to a convenient part of the draw-head.

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

1. In a car-coupling, the combination, with the draw-head, of the locking-jaw mounted therein and provided with a series of projections, a link in engagement therewith and extending beyond the draw-head, and a spring

bearing on the locking-jaw and retaining it in position, substantially as described.

2. In a car-coupling, the spring flaps or doors, in combination with a cross-bar for guiding the link and a locking-jaw having a series of projections for engaging the link, substantially as described.

3. The combination, in a car-coupling, of the locking-jaw provided with the projections and with the operating-lever, the spring operating to hold the locking-jaw in normal position, and the spring flaps or doors, substantially as described.

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

RICHARD CONDON.

Witnesses:

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