

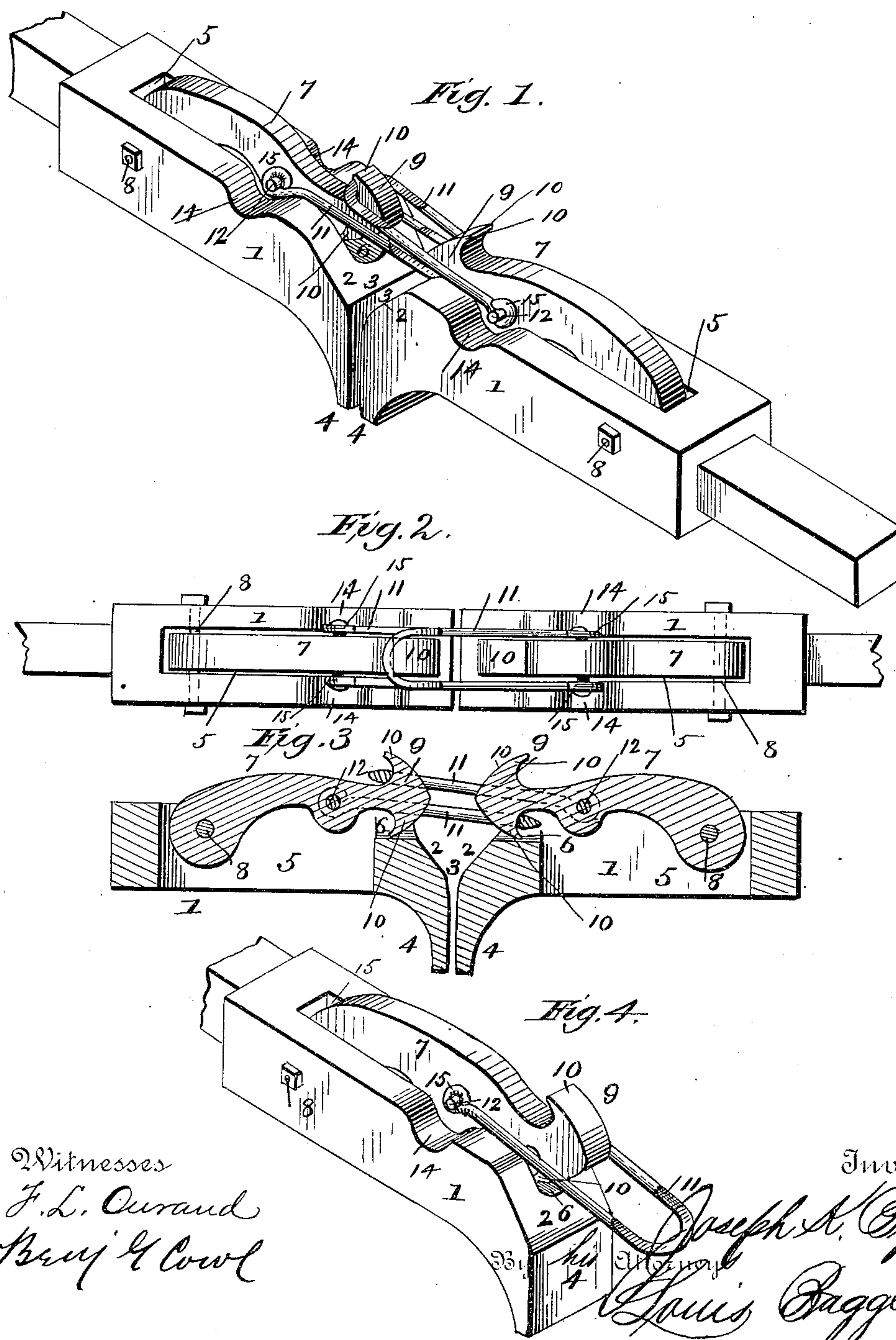
(No Model.)

J. K. BYWATERS.

CAR COUPLING.

No. 370,006.

Patented Sept. 13, 1887.



UNITED STATES PATENT OFFICE.

JOSEPH K. BYWATERS, OF PARIS, TEXAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 370,006, dated September 13, 1887.

Application filed May 24, 1887. Serial No. 239,206. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH K. BYWATERS, a citizen of the United States, and a resident of Paris, in the county of Lamar and State of Texas, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to
10 which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of two
15 coupled draw-heads of my improved car-coupling. Fig. 2 is a top view of the same. Fig. 3 is a longitudinal vertical sectional view of the draw-heads, and Fig. 4 is a perspective view of one of the draw-heads.

20 Similar numerals of reference indicate corresponding parts in all the figures.

My invention has relation to that class of car-couplings in which links pivoted or hinged to the draw-heads are engaged by arrow-headed or hook-shaped projections upon the
25 opposite draw-heads; and it consists in the improved construction and combination of parts of such a car-coupling, as hereinafter more fully described and claimed.

30 In the accompanying drawings, the numerals 1 indicate the draw-heads, which have their outer ends formed with inclined or beveled upper corners, 2, with flat faces 3, and with downwardly-extending portions 4, the said
35 downwardly-projecting portions and the flat faces forming the bumpers for the couplings.

The draw-heads are formed with longitudinal vertical slots 5, extending from the inner ends of the draw-heads to the upper edges of the
40 beveled corners, where they are extended into grooves 6, extending into the beveled faces, and arrow-headed or anchor-shaped bars 7 are pivoted upon transverse bolts 8 in the inner ends of these slots, having their arrow or
45 anchor-shaped heads 9 resting in the grooves in the ends of the draw-heads.

The heads of the anchor-bars have beveled faces and have the barbs or flukes 10 curved slightly rearward, and bails or links 11 are
50 pivoted with their eyed ends upon transverse

bolts 12, passing through the anchor-bars at a distance from their heads, and have their doubled ends beveled forward upon the upper and lower sides, as shown at 13.

The upper sides of the side pieces for the
55 slots in the draw-heads are formed with notches or recesses 14, into which the eyed ends 15 of the links may rest, and the side pieces of the links rest upon the upper faces of the draw-heads at the sides of the slots, projecting forward with their doubled and beveled ends.
60 It will now be seen that when the draw-heads are brought toward each other the end of one link will pass under the end of the other link, and will thereupon strike the lower beveled
65 face of the anchor-head, raising the same and becoming engaged by its fluke or barb, and the other link will be engaged by the upper fluke or barb of the opposite anchor-head, sliding up the upper beveled face of the same, so that
70 both links will be engaged by the flukes or barbs of the anchor-bars, one being engaged by the lower fluke or barb of the head opposite to it and the other link being engaged by the upper fluke of the head opposite to it,
75 the coupling being thus double, insuring greater safety and certainty of hold, besides having double strength.

It will be seen that the strain of one link upon the upper fluke of one head will force
80 that head down, and the link of that head, being forced down against the upper side of the draw-head, will have its doubled end forced against the lower side of the opposite head, which is drawn down by the strain of
85 its link, so that one link will hold the other link in engagement, and it will be seen that the links may rock with their doubled ends upon the flukes or barbs of the anchor-bars, allowing horizontal movement for the coup-
90 lings in turning curves and in going over an uneven track, and the links may likewise be raised off from the upper face of one of the couplings in the case of cars of unequal height being coupled together without affecting the
95 efficiency of the coupling.

The links may be coupled into common pin-and-link couplings in the usual manner, and the flat faces of the draw-heads will enable the couplings to be easily and satisfactorily coup-
100

led together with the common pin-and-link couplings.

5 If desired, the links may have suitable rods, chains, or other operating means attached to them, so that they may be raised from the platform of a car or from the top of a freight-car; or they may have suitable means at-
10 tached to them which will enable them to be raised or released without any necessity for going in between the cars or for handling the links, the coupling of the links being auto-
matic and requiring no assistance, as the beveled faces of the draw-heads, the beveled ends
15 of the links, and the beveled faces of the anchor-bars will serve to guide the several parts into their proper relative positions.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

20 In a car-coupling, the combination of a draw-head having a longitudinal slot extending in the upper face into a groove, and formed

with notches or recesses in the upper face at the sides of the slot, and having a beveled upper corner and a flat face and a downwardly-
25 extending portion at the under side, an anchor-bar pivoted at its inner end in the inner end of the slot, and having an anchor or arrow head at its outer end formed with rearwardly-hooked flukes or barbs, and a link piv-
30 oted with its eyed rear ends upon a transverse bolt in the anchor-bar a distance to the rear of the head, and having its doubled end beveled upon the upper and lower sides, and
35 having the eyed ends resting in the notches or recesses in the face of the draw-head, as and for the purpose shown and set forth.

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

JOSEPH K. BYWATERS.

Witnesses:

R. J. MURPHY,
J. S. SMITH.