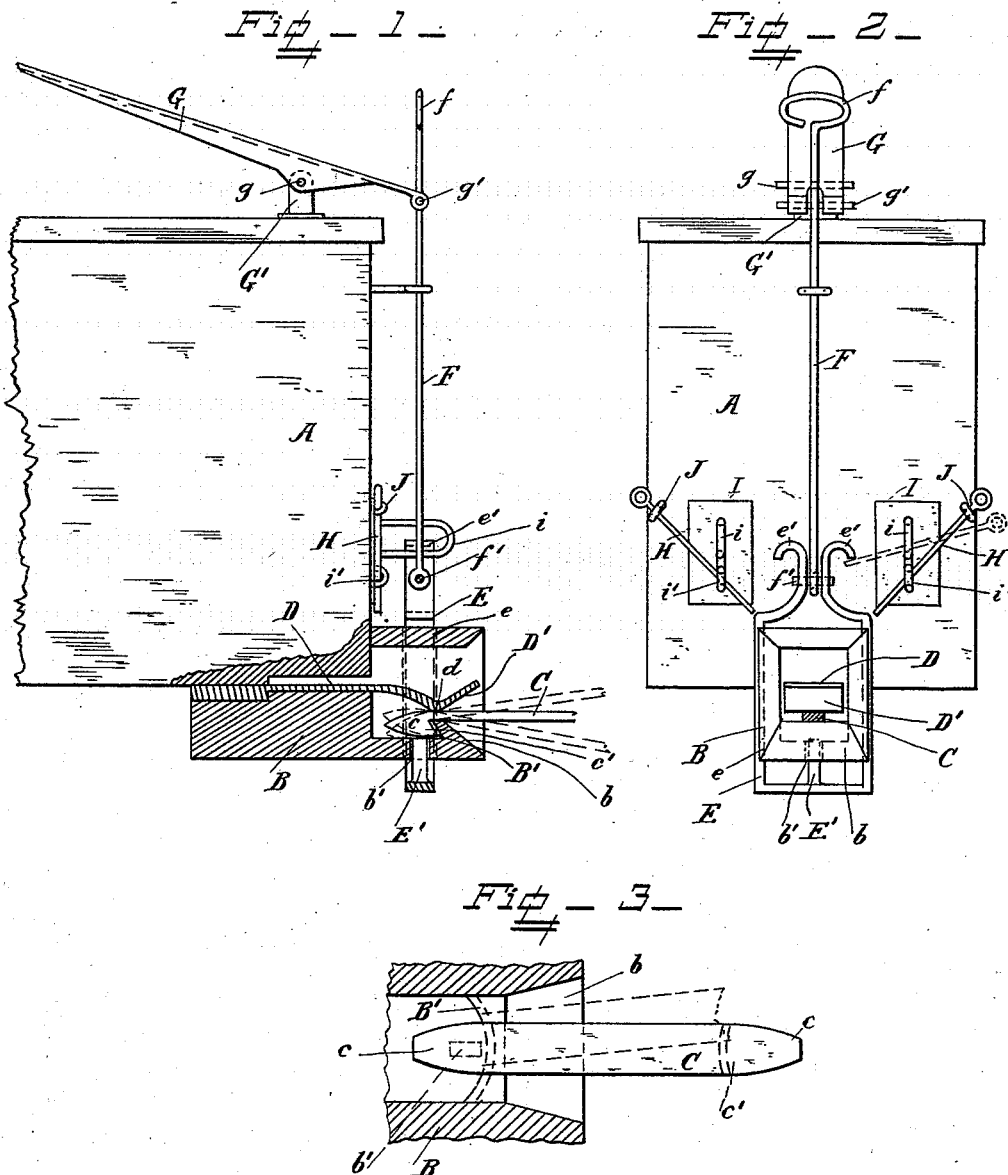


(No Model.)

J. A. MASON.
CAR COUPLING.

No. 418,734.

Patented Jan. 7, 1890.



WITNESSES.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 418,734, dated January 7, 1890.

Application filed October 24, 1889. Serial No. 327,996. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. MASON, a citizen of the United States, residing at Savoy, in the county of Fannin and State of Texas, have invented certain new and useful Improvements in Car-Couplings; 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 appertains to make and use the same.

This invention relates to car-couplings; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a longitudinal vertical section through the car-coupling. Fig. 2 is an end view of the car-coupling. Fig. 3 is a plan view from above of the link, showing also a portion of the draw-head.

A is the end of the car, and B is a draw-head, secured thereto in any approved manner, and provided with the downwardly-inclined portion *b* in front.

B' is a concave dovetailed recess formed in the draw-head behind the said inclined portion *b* for the link to engage with, and *b'* is a hole in the bottom of the draw-head.

C is the coupling-link, provided with the curved pointed end *c* and the convex hook *c'*, adapted to engage with the recess B' of the draw-head. The convexity of hook *c'* permits the link to have free lateral play and still engage with the draw-head, as shown by the dotted lines in Fig. 3, and the dovetailed form of the recess B' permits the link to have free vertical play, as shown by the dotted lines in Fig. 1.

D is a spring secured to the interior of the draw-head, and provided with the downwardly-projecting portion *d* and the upwardly-inclined portion D' at its extreme end for the end of the link to strike against. Both ends of the link are alike, and the adjacent cars are provided with similar draw-heads, as above described. If desired, however, one end of the link can be adapted for engagement with the pin of an ordinary car-coupling. The link is held between the portion *d* of the spring and the top of the inclined portion *b* of the draw-head, which comes directly

underneath said portion *d*. When the cars are pushed together, the link is automatically guided by the inclined portions *b* and D' into engagement with the dovetailed recess, as shown in Fig. 1, raising the spring D in its passage under the portion *d*.

E is a stirrup which slides in vertical grooves *e* formed in the outside walls of the draw-head. This stirrup is provided with the hooks *e'* at the top and the tongue E' at the bottom. The tongue E' projects upwardly through the hole *b'* in the bottom of the draw-head. The cars are uncoupled by raising the stirrup until the said tongue has lifted the hook of the link clear of the dovetailed recess, thereby permitting the cars to be drawn apart.

F is a rod, provided with a handle *f* at the top of the car and pivoted at its lower end by the pin *f'* to the stirrup E.

G is a foot-lever, pivoted by pin *g* to bracket G', secured to the roof of the car, and having its short end pivoted by pin *g'* to said rod F.

The cars may be uncoupled from either side as well as from the roof.

H are uncoupling-rods, and I are uncoupling-brackets, secured to the car end. These brackets are provided with the fulcrum-bows *i* and with eyes *i'* under said bows.

J are eyes projecting from the car end near its sides.

When not in use, the rods H are passed through the eyes J and *i'*, which support them and hold them ready for use when required. The cars may be uncoupled from either side by withdrawing one of the rods from the eyes which support it and passing it through one of the fulcrum-bows under one of the hooks *e'* of the stirrup, as indicated by the dotted lines in Fig. 2. The rod H is then used as a lever to raise the stirrup.

What I claim is—

1. In a car-coupling, the combination, with a draw-head provided with a downwardly-inclined portion in front and a concave dovetailed recess behind said portion, of a spring secured inside the draw-head and provided with an upwardly-inclined portion at its front end over the said inclined portion of the draw-head, and a link provided with a curved pointed end and with a convex hook adapted

to engage with said recess in the draw-head and be held in position by the spring, substantially as and for the purpose set forth.

2. The combination, with the draw-head 5 provided with the hole through its under side and the vertical guide-grooves in its exterior sides, of the stirrup sliding in said grooves and provided with a tongue at its lower end and hooks at its upper parts, and a lifting device—such as a rod or bar—adapted to 10 engage with the upper part of the stirrup for raising it in the said external guide-grooves and causing the said tongue to raise the coupling-link in the draw-head, substantially 15 as and for the purpose set forth.

3. The combination, with the draw-head provided with the hole through its under side, 20 of the vertically-sliding stirrup provided with a tongue sliding in said hole and adapted to raise the coupling-link in the draw-head, the hooks at the top of the stirrup, the fulcrum-bows secured to the ends of the car on each side of the said stirrup-hooks, and the uncoupling-rods adapted to be passed through 25 said bows to raise the stirrups, substantially as and for the purpose set forth.

4. In a car-coupling, the combination, with a draw-head provided with the external vertical guide-grooves, a downwardly-projecting portion in front, a recess behind said 30 portion, and a hole through its under side at the bottom of the recess, of a spring secured inside the draw-head and provided with an upwardly-inclined portion at its front end over the said inclined portion of the draw- 35 head, a link provided with a hook adapted to engage with said recess, and a stirrup sliding in said external guide-grooves and provided at its lower part with a tongue adapted to be slid in the hole in the draw-head, there- 40 by raising the link-hook clear of the recess against the downward resistance of said spring and permitting the said link to be withdrawn from the draw-head, substantially 45 as and for the purpose set forth.

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

JAMES A. MASON.

Witnesses:

W. N. YOURCE,

W. T. PACE.