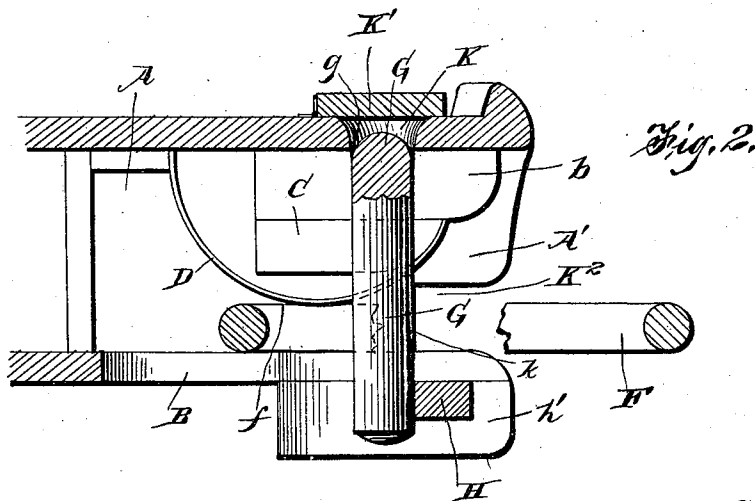
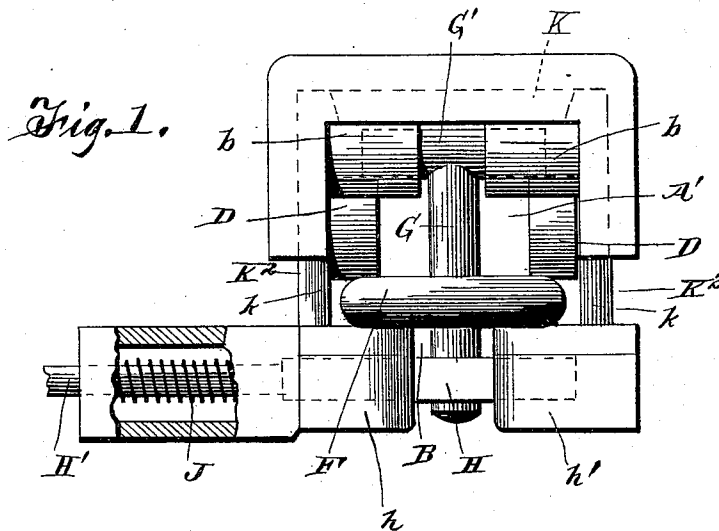


(No Model.)

J. L. RANDOLPH.
CAR COUPLING.

No. 469,197.

Patented Feb. 16, 1892.



Witnesses

Samuel Ker.
Philip C. Masie.

Inventor
John L. Randolph
by *E. W. Anderson*
his Attorney

UNITED STATES PATENT OFFICE.

JOHN L. RANDOLPH, OF NORFOLK, VIRGINIA, ASSIGNOR OF ONE-HALF TO
GEORGE L. CRUSER, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 469,197, dated February 16, 1892.

Application filed October 17, 1891. Serial No. 408,985. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. RANDOLPH, a citizen of the United States, and a resident of Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Car-Couplings; and I do 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical longitudinal section. Fig. 2 is a top plan view.

This invention relates to certain new and useful improvements in car-couplings; and it consists in the novel construction and combination of parts, as hereinafter specified.

In the accompanying drawings, the letter A designates the draw-head having therein the link-receiving chamber A', the bottom wall of which is cut away, forming a slot B. Secured in the upper portion of the chamber A' on opposite sides thereof, are longitudinal parallel strips or ribs *b* (they may be made integral with the draw-head) on the under surface of each of which are convex blocks C.

D D designate springs which are secured at their ends at each end of the blocks C and extend one underneath each said block. These springs are designed to bear on the upper faces of the side portions *f* of the coupling-link F and have sufficient elasticity to accommodate the movement of the link under the varying positions of the cars when in motion. They also serve as buffers to take up the shock of concussion.

G is the coupling-pin, which is provided with a cylindrical T-head G', which has loose bearings in concave recesses or seats *g*, formed in the forward portions of the strips or ribs *b*. Said pin, when in position, has a free upward and backward swing between said cleats in the chamber A', its lower end extending below the plane of the link.

H is a bar working loosely in guides *h h'* and extending transversely across the forward portion of the slot B in position to normally prevent the pin G from swinging outwardly. Said bar has a handle portion H', extended laterally in position to be operated from the side of the car and by means of which said

bar may be withdrawn sufficiently far to allow the pin to swing outwardly. A spring J returns the bar to and holds it in locking position. As the link of an approaching car enters the chamber A', its forward end strikes the pin and throws it upwardly out of its path. As soon as the link passes the pin, the latter drops therethrough and effects the coupling. The pulling strain on the link will prevent the pin swinging back out of engagement therewith, and the uncoupling can be effected only by withdrawing the bar H sufficiently to allow the pin to swing outwardly and enable the link to pass it.

In the upper wall of the draw-head is a slot K, communicating with the seat or bearing for the pin-head and through which the pin may be dropped to position and removed. This slot is closed by a plate or cover K'.

The side walls of the chamber A' at their forward ends are slotted or cut away, as shown at K², the rear walls *k* of said slot being beveled. The provision of these slots allows a greater lateral play of the link.

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

1. In a car-coupling, a draw-head having in the upper portion of its link-receiving chamber parallel longitudinal strips or ribs provided with convex blocks depending therefrom, said strips or ribs having bearings formed therein for the T-head of a swinging pin, and springs underneath said blocks, substantially as specified.

2. A car-coupling comprising the draw-head having the link-receiving chamber therein, the parallel strips or ribs in the upper portion of said chamber, one on each side, the blocks depending therefrom and the springs underneath said blocks, the swinging pin having a T-head provided with bearings in said ribs or strips, its lower end projecting below the plane of the link, the transverse bar for holding said pin in coupling position, and means for withdrawing said bar, substantially as specified.

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

JOHN L. RANDOLPH.

Witnesses:

GEO. H. PARMELEE,
PHILIP C. MASI.