(No Model.)

W. R. ANDERSON.

CAR COUPLING.

No. 456,930. Patented Aug. 4, 1891.

Fig. 1.

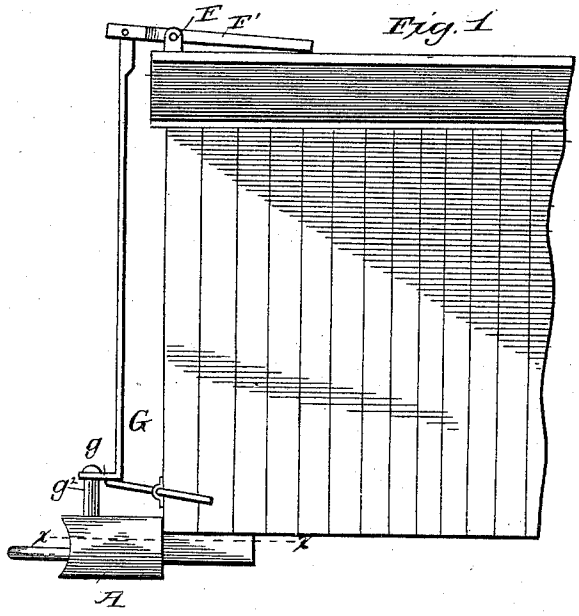


Fig. 2.

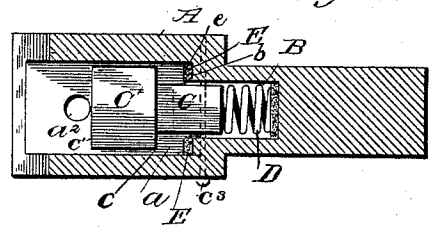


Fig. 3.

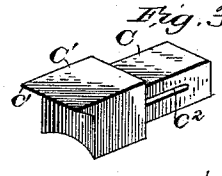
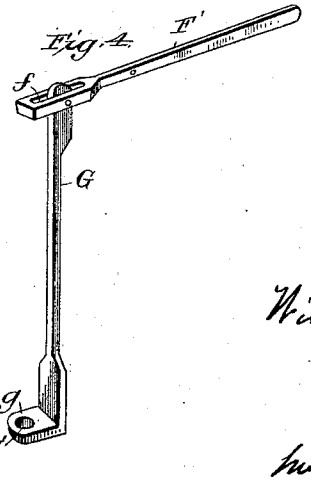


Fig. 4.



Witnesses
F. P. Cornwall
Wm. Gelston

Inventor
William Richard Anderson
by
E. H. Gelston
his attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM RICHARD ANDERSON, OF CLARKSVILLE, TENNESSEE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 456,930, dated August 4, 1891.

Application filed April 7, 1891. Serial No. 388,013. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RICHARD ANDERSON, a citizen of the United States, residing at Clarksville, in the county of Montgomery and State of Tennessee, have invented certain new and useful Improvements in Car-Couplers; 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 the letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in car-couplers; and it consists in the certain peculiar features of construction and combination of parts more fully described hereinafter, and definitely pointed out in the claim.

The object of my invention is to provide a car-coupler that is simple in construction, cheaply manufactured, automatic and effective in its operation, and exceedingly durable. I attain this object by the construction illustrated in the accompanying drawings, in which like letters of reference indicate like parts in the several views, and in which—

Figure 1 is a side elevation of a car having my improved coupler attached thereto. Fig. 2 is a section through line X X of Fig. 1. Fig. 3 is a perspective view of the pin-supporting slide, and Fig. 4 is a detail perspective view of the link-lifter.

In the drawings, A represents the draw-bar, secured to the car in any suitable manner, having a recess a in its end and a vertical pin-opening a^2. In the draw-head, to the rear of the recess a and opening into the same, is a chamber B, which forms a shoulder b between the same.

In the chamber B and recess a is located a longitudinally-movable slide C, having an enlarged head C′ and shoulder c corresponding to the shoulder b of the recess. The forward end of the head C′ is formed with a flange c', having an inclined lower face, which tends to guide the link to the center of the head, the end wall of the head under the flange being concave, so as to conform to the convex ends of the link.

The slide C is provided with a longitudinal slot c^2, through which is passed a bolt c^3, which is secured in transverse openings in the side of the draw-head, thereby allowing a longitudinal movement of the slide and at the same time holding it securely in position. Situated in the rear of the chamber B, and abutting against the end of the slide C and the rear wall of said chamber, is a coil-spring D, which tends to normally force the slide out, so that the flange c' closes the pin-opening a^2. To prevent the crushing of the coil-spring and corresponding shoulders of the recess and the slide in the operation of coupling the cars, I provide a rubber or other elastic packing E, secured in groove e in the inner face of the recess just in front of the shoulder b. Secured to the end of the car is a standard F, in the upper end of which is pivoted an uncoupling-lever F′, having a slot f in the end thereof. Pivoted in the slot and extending downward to a point above the draw-head is an arm G, having a right-angle extension g. This right-angle extension g has a pin-opening g' therein, in which the pin g^2 rests, said opening corresponding to and being directly above the pin-opening in the draw-head.

The operation of my device is as follows: When it is desired to couple the car, the pin is placed in the pin-opening in the upper part of the draw-head and rests upon the flange c' on the slide. When the cars come together, the link in the draw-head on the other car engages with the concave end of the head C′, which equally distributes the pressure or impact both on the head and the end of the link, forcing the slide C back against the tension of the coil-spring until the flange c' passes over the pin-opening in the draw-head, allowing the pin to drop into position, thereby coupling the cars. When it is desired to uncouple the cars, the inner end of the uncoupling-lever is forced down, thereby raising the arm g and the pin g^2.

I am aware that many minor changes in the construction and arrangement of the parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

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

In a car-coupler, the combination, with a recessed draw-head having a chamber in the rear of said recess and a vertical pin-opening, a longitudinally-movable slide in the recess and chamber having a longitudinal slot therein, a bolt passing through said slot and secured in openings in the sides of the draw-head, an enlarged head on the outer end of the slide, an upwardly-inclined flange on the upper portion of the end of the head, the end of the head under the flange being concave, a coil-spring in the rear of the chamber, and an elastic packing secured in a groove around the inner face of the recess and resting against the end wall of the recess, of a standard secured to the end of the car, an uncoupling-lever having a slot in the end thereof pivoted to the upper end of the standards, a downwardly-extending arm pivoted in said slot, and a right-angle extension on said arm having a pin-opening therein, substantially as described.

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

WILLIAM RICHARD ANDERSON.

Witnesses:
Q. ATKINSON, Jr.,
J. M. ANGUS.