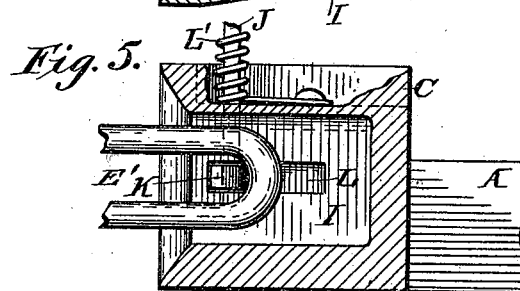
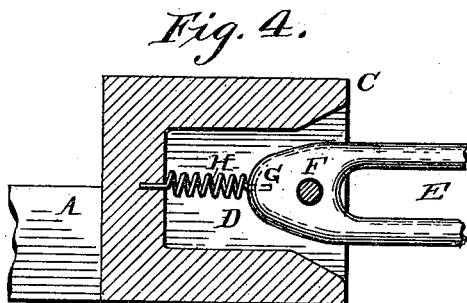
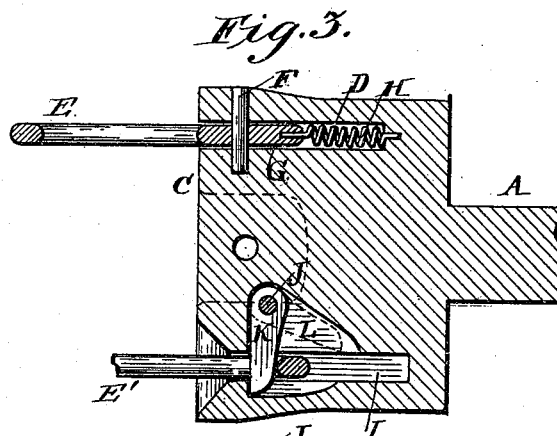
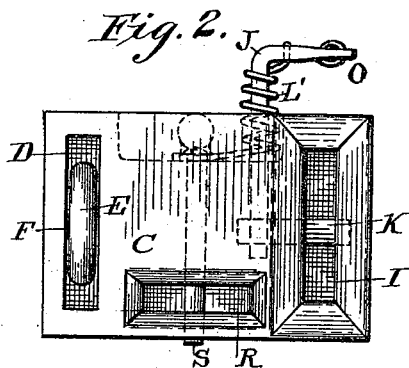
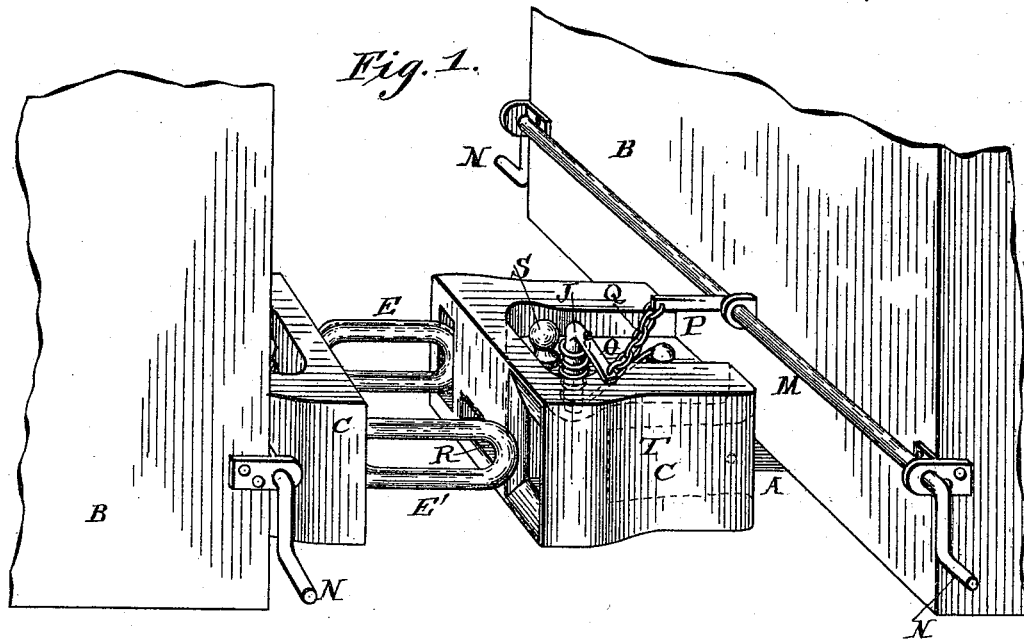


(No Model.)

F. BENDER.
CAR COUPLING.

No. 491,976.

Patented Feb. 21, 1893.



Witnesses

Geverance.
Edw. S. Duval Jr.

Inventor

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UNITED STATES PATENT OFFICE.

FRANK BENDER, OF ARMOURDALE, KANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 491,976, dated February 21, 1893.

Application filed May 3, 1892. Serial No. 431,691. (No model.)

To all whom it may concern:

Be it known that I, FRANK BENDER, a citizen of the United States, residing at Armourdale, in the county of Wyandotte and State of Kansas, 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.

Figure 1 is a perspective view of the ends of two freight cars partially broken away showing my improvements applied thereto. Fig. 2 is an end elevation of one of my car-couplers. Fig. 3 is a central longitudinal section thereof. Fig. 4 is a vertical sectional view through the vertical link opening on one side of the coupler, and Fig. 5 is a vertical sectional view through the vertical link opening on the opposite side thereof.

My invention relates to car-couplers for freight and passenger cars.

The objects of my improvements are to provide an automatic twin-link coupler which will couple the cars without the necessity of going between the same, and which will uncouple from the outside of the car by means of a rod or similar contrivance.

The invention consist in the following construction and combination of parts, which will first be fully set forth and described and the features of novelty then pointed out and claimed.

In the drawings—A represents the draw-bar of the coupler which is attached in each instance to the cars B at each end.

C represents my improved coupler-head secured to the draw-bar.

D is a link-opening formed vertically in the right side of the coupler-head, and E is a link pivoted therein upon the pivot F so as to project beyond the coupler in a horizontal position to couple with another coupling of its kind.

G is a tail extension of the link E, and H is a coiled spring attached at one end to the

tail extension G, and at the other to the rear of the link-opening or slot D for the purpose of holding the link E horizontally and yet permitting a vertical vibratory movement to the link either upwardly or downwardly to facilitate its entrance into the opposite coupler.

I is the link-slot or opening in the opposite or left-hand side of the coupler, which is vertically arranged like slot D. This is the slot which receives the link E' of the coupler to which it may be coupled, corresponding to its own link E on the opposite side of the head C.

J is a vertical rod having bearings in the head so as to oscillate therein.

K is a locking-arm carried by rod J and rigidly keyed thereto, and L is a cavity formed in the head within which the locking-arm may recede to permit the entrance of the coupling-link.

L' is a spring secured to the rod J at one end and to the head C at the other, so as to exert a constant tendency to throw the locking-arm K into the locked position shown in Fig. 3.

M is a horizontal bar hung in suitable bearings on each end of the car, and provided with handles N.

O is an arm formed on the rod J and at right angles thereto, and P, a similar arm upon rod M.

Q is a link-chain or rod connecting the arms O and P, so that by operating the handles N the locking-arm K on the rod J can be swung rearwardly into the cavity L without the link-opening I thereby uncoupling the link E against the action of the spring L'.

R is the usual link-opening, and S the usual pin by means of which my coupler may be used in connection with freight cars having the ordinary link and pin coupling.

P is a slide covering an opening in the side of the head C through which the locking-arm K is put in place.

My improved car-coupler is simple and efficient in operation, and not easy to get out of order. It is always in position, and no loss of life need attend its use.

I claim—

1. In a car-coupler, the combination of a head, two slots therein, a link pivoted in one

slot or opening having a counterpoise spring attached thereto, a swing-pin pivoted within the other slot or opening, a pin-operating arm journaled in the head, a means for actuating
5 the same, substantially as described.

2. A car-coupler having a vertical slot therein, and a vertically hung link pivoted therein provided with a rear extension having a spring attached thereto and to the head, whereby

the link is counterpoised upon its pivot so as to project horizontally.

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

FRANK BENDER.

Witnesses:

TOM S. YOUNG,
W. STENSON.