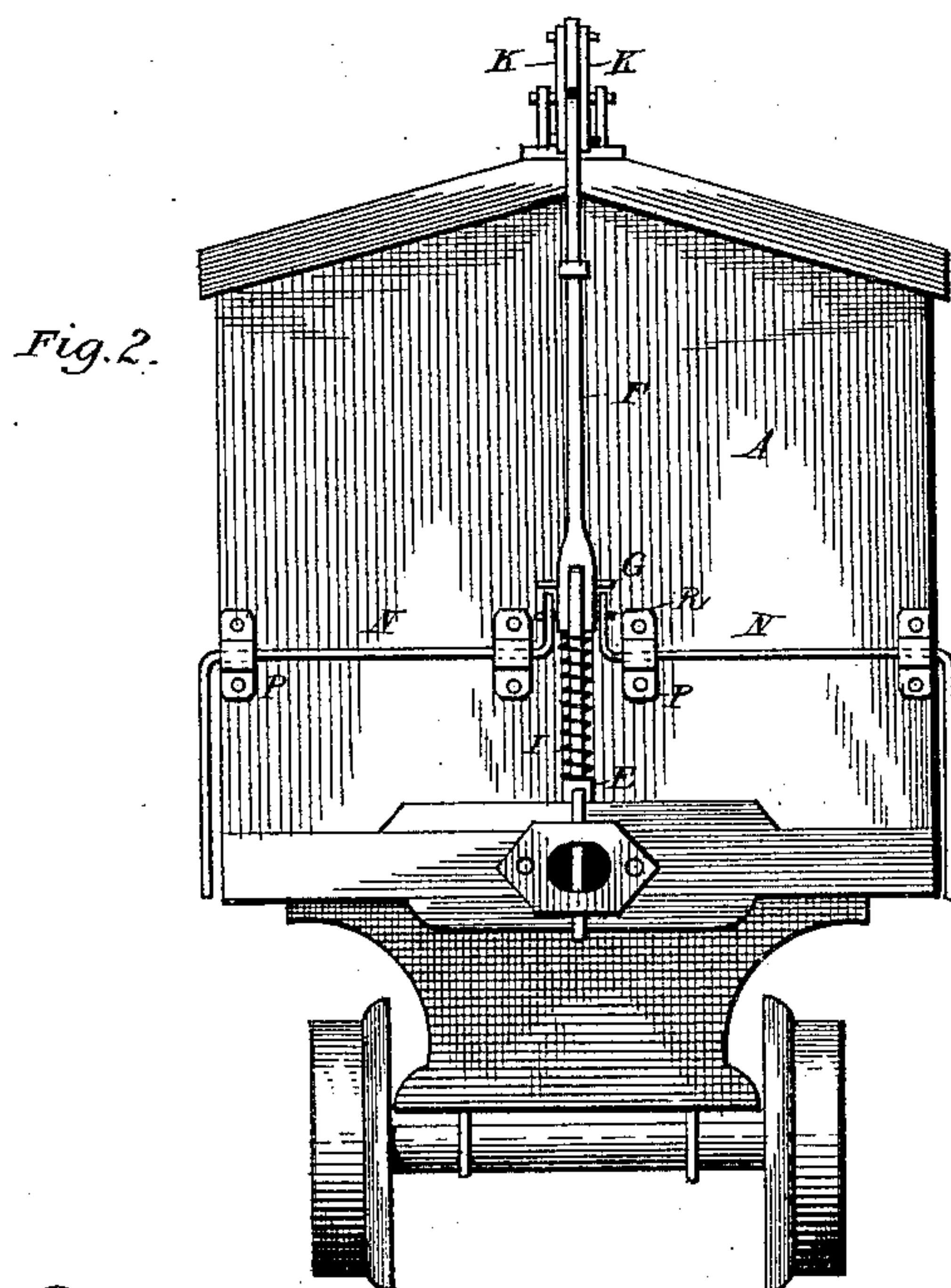
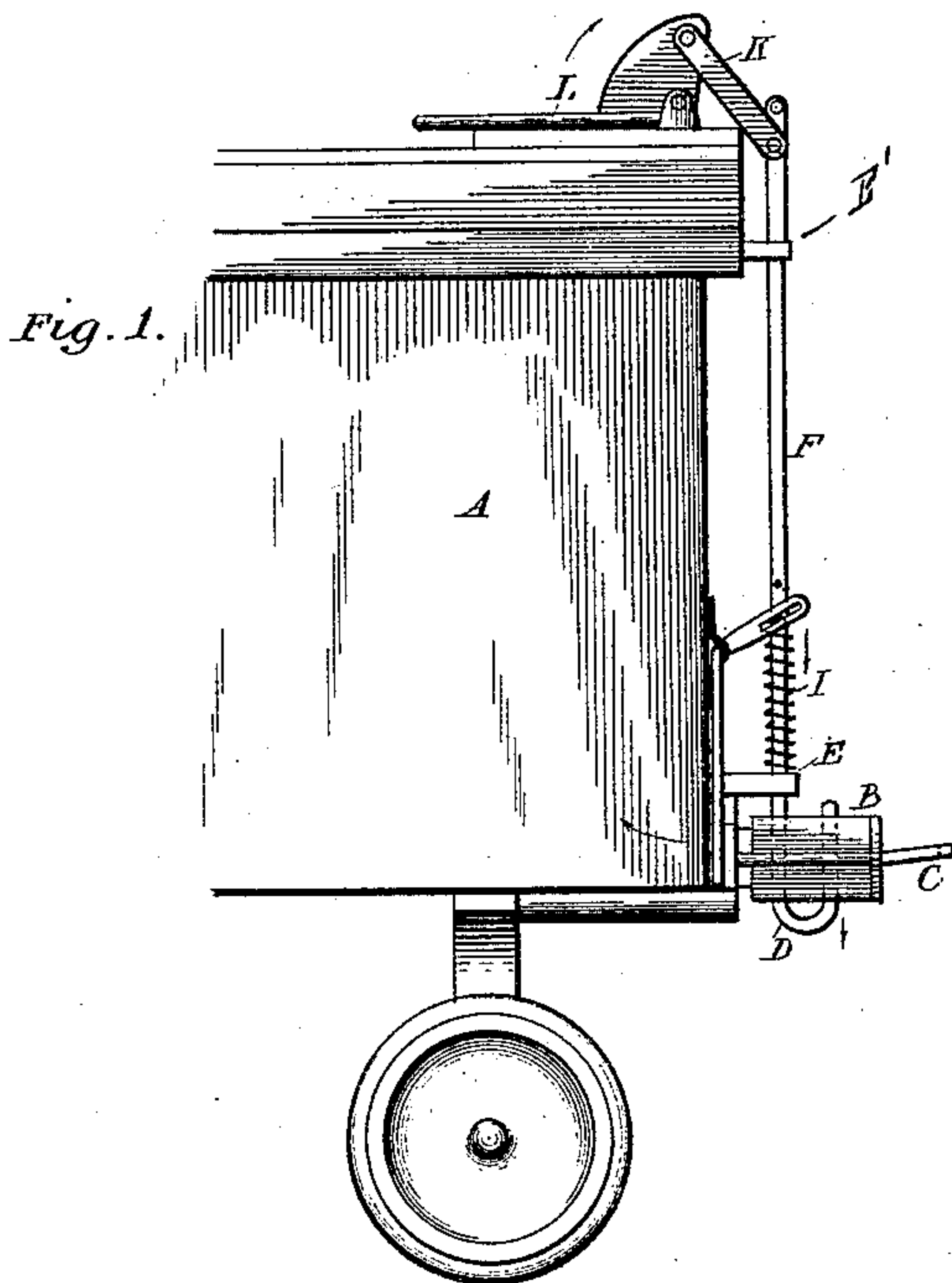


(No Model.)

E. GHIRARDI.
CAR COUPLING.

No. 410,753.

Patented Sept. 10, 1889.



Witnesses

Wm. Norton
J. F. Brown

Inventor
Etienne Ghirardi
By his Attorney Wm. Dudley

UNITED STATES PATENT OFFICE.

ETIENNE GHIRARDI, OF HOUMA, LOUISIANA, ASSIGNOR OF ONE-HALF
TO HENRY C. MINOR, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 410,753, dated September 10, 1889.

Application filed July 18, 1889. Serial No. 317,935. (No model.)

To all whom it may concern:

Be it known that I, ETIENNE GHIRARDI, a citizen of the United States, residing at Houma, in the parish of Terre Bonne and State of Louisiana, have invented certain new and useful Improvements in Car-Couplers; 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 certain improvements in car-couplers; and it has for its objects to so construct the same that they may be operated to couple or uncouple the cars without the necessity of entering between the cars for the purpose, and thus prevent the accidents attendant upon the use of couplers of the ordinary construction.

The above-mentioned objects are attained by the means illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of a portion of a box-car, showing my invention applied thereto; and Fig. 2 represents an end elevation of a car, showing my invention.

Referring to the drawings, the letter A indicates a box-car of the ordinary construction, and B the draw-head, secured to the car in the ordinary manner. The draw-head has the usual recess in its front end for the reception of the coupling-link C, which may be of the ordinary or any approved construction.

The letter D indicates a vertical bar bent into the shape of a letter U at its lower end and passing upward through openings in the upper and lower sides of the draw-head, as shown. The said bar extends upward on one side through a bracket E, secured to the end of the car, the rod being adapted to work vertically through said bracket and the openings in the draw-head before mentioned. The upper end of said bar is flattened and sets in the recess of the bifurcated lower end of a vertical bar F, in which it is pivoted by means of a pin G, the said bar F extending upward and working through a bearing in a bracket E', secured to the end of the car.

I indicates a spiral spring surrounding the long shank of the bar D and confined between

the bracket E and the lower end of the bifurcated bar F, so as to cause the bar to bear normally upward and hold the U-shaped portion of the bar D to assume and maintain the position shown in the drawings. The upper end of the bar F has a series of apertures through it and has connected to it on opposite sides the two adjustable links K, the opposite ends of which are connected with the short arm of a segment or bell-crank lever L, fulcrumed between the lugs of a bearing-block M, secured to the top of the car, whereby the coupler may be operated from the top of the car, as more fully hereinafter explained.

The letter N indicates two transverse rods journaled in bearings P at the end of the car. The inner ends of the said rods are bent at right angles and terminate near each side of the lower end of the rod F, to which they are pivoted by means of pins R. The outer ends of said rods N extend beyond the sides of the car, where they are bent at right angles, constituting levers by means of which the coupler may be operated from either side of the car.

The operation of my invention will be readily understood in connection with the above description, and is as follows: The drawings show the coupling-link in position coupled to the car. To uncouple it, the long arm of the upper segment-lever or either of the side levers is elevated, causing the short arm to depress the bars E and D, forcing the U-shaped end of the latter rod downward through the openings in the draw-head until the short shank of said rod D clears the coupling-link, leaving it free to be withdrawn. After being withdrawn the spring returns the parts to normal position.

My improved coupler thus constructed is cheap, simple, and effective, is easily applied, and while not liable to get out of order it may be readily repaired when necessary. Moreover, it is evident that it can be operated from the top or either side of the car, consequently obviating all necessity of entering between the cars.

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

1. In a car-coupler, the combination, with

the draw-head, of the vertical U-shaped bar working in openings in the upper and lower sides thereof and in a bracket secured to the end of the car, the bifurcated bar connected
5 thereto and working vertically in a bracket secured to the end of a car, the spiral spring surrounding the long shank of the U-shaped bar and confined under the lower end of the bifurcated bar, and the segment or bell-crank lever
10 fulcrumed at the top of the car, whereby the coupler may be operated, substantially as specified.

2. The combination, with the draw-head,

the U-shaped bar, the bifurcated bar, and spiral spring, of the transverse bars bent at
15 their ends and pivoted to the bifurcated bar, their outer ends projecting beyond the sides of the car, whereby the coupling devices may be operated from either side, substantially
20 as specified.

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

ETIENNE GHIRARDI.

Witnesses:

F. L. BROWNE,

E. L. WHITE.