

(No Model.)

W. F. RICHARDS.
CAR BUFFER.

No. 533,609.

Patented Feb. 5, 1895.

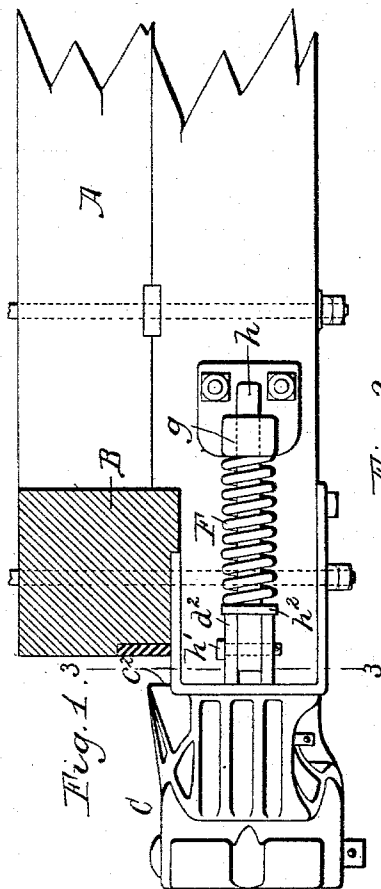


Fig. 1.

Fig. 2.

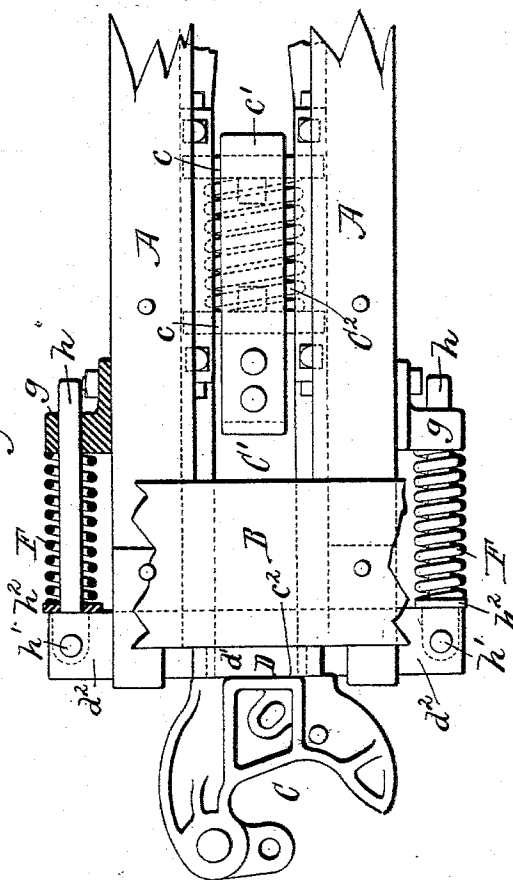
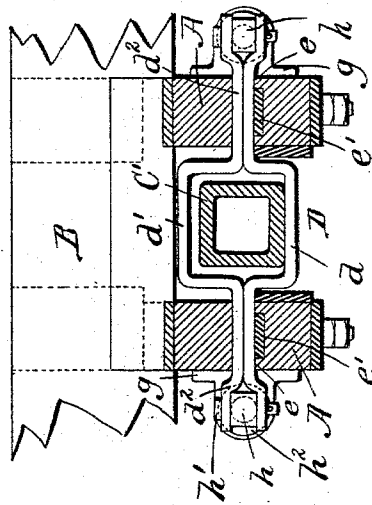


Fig. 3.



Witnesses:
Emil Neuhart.
F. Gustav Wilhelm.

W. F. Richards Inventor.
By Wilhelm Bonnet
Attorneys.

UNITED STATES PATENT OFFICE.

WILLARD F. RICHARDS, OF BUFFALO, ASSIGNOR TO THE GOULD COUPLER COMPANY, OF NEW YORK, N. Y.

CAR-BUFFER.

SPECIFICATION forming part of Letters Patent No. 533,609, dated February 5, 1895.

Application filed May 26, 1894. Serial No. 512,515. (No model.)

To all whom it may concern:

Be it known that I, WILLARD F. RICHARDS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Car-Buffers, of which the following is a specification.

This invention relates to the buffers which are employed principally in connection with the draw-heads of freight cars, in addition to the usual springs of the draw-bar, for the purpose of more effectually resisting the inward movement of the draw-head and preventing breakage thereof by striking the end sill or buffer block.

The object of my invention is to simplify the construction of this supplemental buffer mechanism.

In the accompanying drawings: Figure 1 is a longitudinal sectional elevation of the end frame of a freight car provided with my improvement. Fig. 2 is a top plan view thereof partly in section. Fig. 3 is a vertical cross section in line 3—3, Fig. 1.

Like letters of reference refer to like parts in the several figures.

A represents the center sills of the car body and B the end sill.

C is the drawhead, C' the draw-bar and C² the main draft and buffer springs which co-operate with two followers c c connected with the draw-bar by the usual tail strap c'. This main buffer mechanism, however, forms no part of my invention and may be of any other ordinary construction.

D is the carry iron or stirrup which supports the front portion of the draw-bar. This carry iron is arranged to move on the center sills lengthwise of the car and serves at the same time as a supplemental buffer or buffer head for the draw-head. The carry iron consists preferably of a lower U-shaped bar d, and an upper inverted U-shaped bar d', forming with the lower bar a rectangular loop through which the draw-bar passes. Each of these U-shaped bars is provided with lateral supporting wings or extensions d² and the opposing wings of the two bars are arranged to slide in longitudinal guide slots e formed in the center sills, as shown in Fig. 3. The lower sides of these guide slots are preferably

faced with metallic wear strips e'. The wings of the divided carry iron extend laterally beyond the outer sides of the center sills, as shown.

F F represent supplemental buffer springs arranged on opposite sides of the center sills and bearing at their front ends against the projecting ends of the carry iron wings d² and at their rear ends against stationary lugs g secured to the outer sides of the center sills. These springs are retained in place by side stems or rods h passing through the springs and pivoted at their front ends between the projecting wings of the carry iron by vertical bolts h', while their rear portions are guided in the lugs g. A washer h² is preferably interposed between the front end of each of the supplemental buffer springs and the adjacent rear side of the carry-iron wings.

The supplemental buffer springs tend to retain the longitudinally movable carry-iron in its normal or forward position and yieldingly oppose its inward movement beyond this position. The carry iron thus serves not only to support the drawbar, but acts also as a buffer head or spring follower which supplements the buffing action of the ordinary buffer springs on the draw-bar, thus increasing the resistance encountered by the draw-head when moved inward by contact with an opposing draw-head and preventing the draw-head from striking the end sill or buffer block with sufficient force to break it off the draw-bar. The draw-head, when moved inward, bears with its shoulder c³ against the front side of the carry-iron, thus forcing the latter in the same direction against the pressure of the supplemental springs.

As the carry iron is utilized as part of the supplemental buffer device, the number of parts is reduced and the cost of the device is correspondingly lessened.

I claim as my invention—

1. The combination with the car body, of a carry iron for the draw-bar capable of moving longitudinally on the car body, and buffer springs which resist the inward movement of the carry iron, substantially as set forth.

2. The combination with the car body, of a longitudinally movable carry iron for the draw-bar guided on the car body and having

lateral wings or extensions, and buffer springs interposed between said wings or extensions and stationary lugs or abutments on the car body, substantially as set forth.

5 3. The combination with the longitudinal sills of the car body having guide slots, of a carry-iron for the draw-bar having lateral wings or extensions passing through said guide slots, longitudinal rods attached at their
10 front ends to said wings or extensions and guided with their rear portions in lugs secured to said longitudinal sills, and buffer springs surrounding said longitudinal rods between said lugs and the extensions of the
15 carry iron, substantially as set forth.

4. The combination with the longitudinal

sills of the car body having guide slots, of a carry iron composed of two U-shaped bars, each having lateral wings or extensions passing through said guide slots, longitudinal
20 rods attached at their front ends to the projecting wings of the carry iron and guided with their rear portions in lugs secured to said longitudinal sills, and buffer springs surrounding said rods between the wings of the
25 carry iron and said lugs, substantially as set forth.

Witness my hand this 7th day of May, 1894.
WILLARD F. RICHARDS.

Witnesses:

JNO. J. BONNER,
ELLA R. DEAN.