J. L. BERRY.

Car-Coupling.

No. 207,100. Patented Aug. 20, 1878.

Fig. 1.

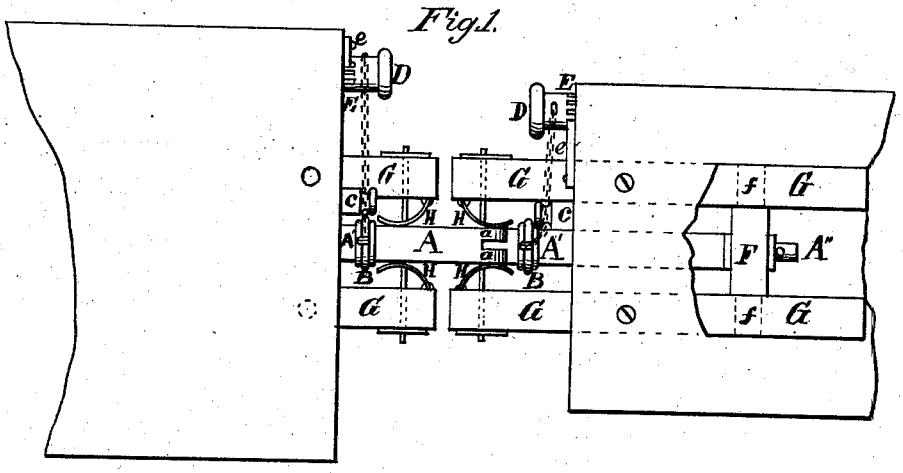


Fig. 2.

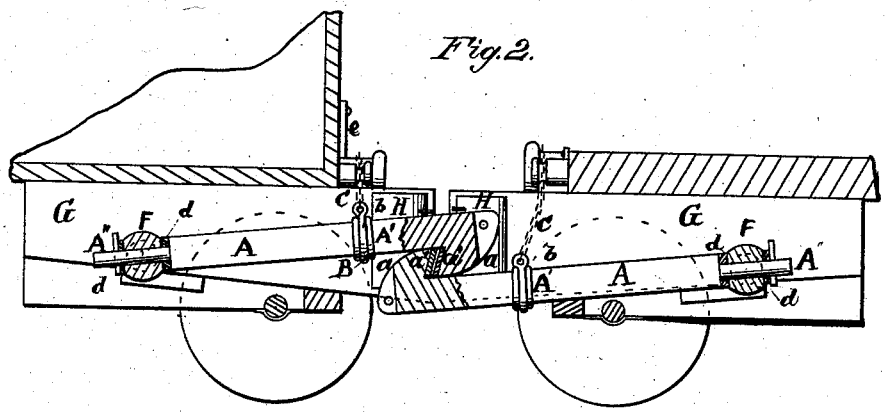


Fig. 5

Fig. 3.

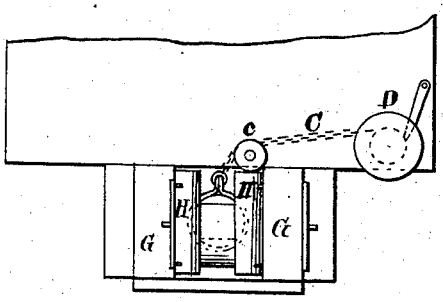
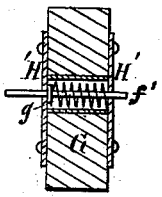


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES L. BERRY, OF SAGINAW, MICHIGAN.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **207,100**, dated August 20, 1878; application filed August 6, 1878.

To all whom it may concern:

Be it known that I, JAMES L. BERRY, of Saginaw city, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in railroad-car couplings, which will be hereinafter described, and set forth in the claims.

In the drawing which forms a part of this specification, Figure 1 is a plan view. Fig. 2 is a longitudinal vertical section; and Figs. 3, 4, and 5 are details of the invention.

A A are the draw-bars, having each at its outer end a curved or cam surface, *a*, to permit the bars to pass one over the other until the gains *a' a'* interlock. These gains are serrated vertically, so that the serrations *a'' a''*, Fig. 5, mesh together, and prevent lateral sliding as the cars run around curves.

At A' a neck is formed around the bar, and a collar, B, is fitted therein, to permit the bar to rotate freely. On the collar is an eye, *b*, to which is fastened a chain or cord, C, which passes over a pulley, *c*, secured to the car-body. Said chain is then carried over and attached to a windlass, D, on which is a ratchet-wheel, E, having a pawl, *e*, all of which are secured to the car-body.

The draw-bars A A may have in their outer ends slots, with holes for the usual link and bolt, should the other fixtures get out of order. The inner end of each draw-bar has a dowel-pin, A'', which passes through a thwart, F, that is pivoted in the buffer-heads G G by pins *f f*. Washers *d d* are placed each side of F on the dowel-pin A'', which may be of elastic material. The thwart F sustains the draw-bar, to which it is connected and by which the car is moved.

Inside of the buffer-heads G G are guide-plates H H, which are hinged vertically to them. These plates are curved, and are kept distended by means of rods *f*, which pass through the buffer-heads, and around which rods are coiled springs *g*, which keep the rods *f'* against the hollowed surface of the guide-plates.

H' H' are plates on the sides of buffer-heads G, through which the rod *f'* is guided. These plates H' H' guide the draw-bars as they come together for coupling the cars, and yet will readily yield when required by the movements of the cars on the track, or when the draw-bar is to be reversed.

The chain and collar attached to the windlass permit the draw-bar to be suspended at any height for coupling all kinds of cars. The collar allows for the turning of the bar, which is pivoted in the thwart, and the vertical movement of the bar is provided for in the pins *f f* in the buffer-heads G G.

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

1. The reversible draw-bar A, provided with neck A', in combination with the collar B, having eye *b*, chain C, pulley *c*, windlass D, ratchet-wheel E, and pawl *e*, substantially as and for the purpose specified.

2. The reversible draw-bar A, provided at its outer end with hook *a a'*, grooved or serrated vertically to hold it parallel with its fellow, in combination with buffer-heads G, thwart or roller F, and washers *d*, substantially as specified.

3. The reversible draw-bar A, constructed as herein described, in combination with buffers G, thwart F, hinged guide-plates H H, rods *f'*, and coiled springs *g g*, all arranged and operating in the manner and for the purpose shown and described.

4. The reversible draw-bars A A, having serrated or grooved hooks *a'*, in combination with each other and with the buffer-heads G, hinged guide-plates H, plates H', rods *f'*, and springs *g*, substantially as and for the purpose shown and described.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

JAMES L. BERRY.

Witnesses:
E. A. DICK,
F. H. SCHOTT.