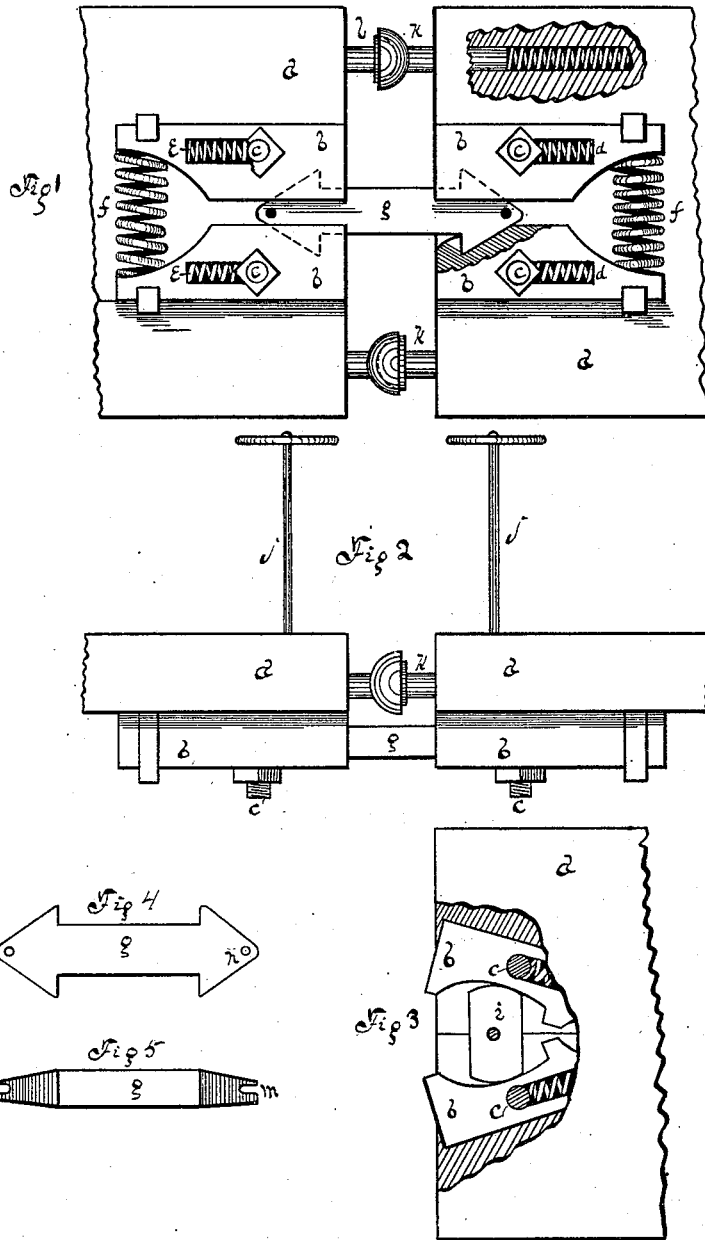


W. A. CUMMINGS.
CAR-COUPPLINGS.

No. 194,996.

Patented Sept. 11, 1877.



Witnesses
Robt. F. Gaylord
O. S. Hungerford

Inventor
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 atty.

UNITED STATES PATENT OFFICE.

WILLIAM A. CUMMINGS, OF HARTFORD, CONNECTICUT, ASSIGNOR OF ONE-HALF HIS RIGHT TO FREDERICK A. HART, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPINGS.

Specification forming part of Letters Patent No. **194,996**, dated September 11, 1877; application filed March 4, 1876.

To all whom it may concern:

Be it known that I, WILLIAM A. CUMMINGS, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements pertaining to an Automatic Car-Coupler, of which the following is a specification, reference being had to the accompanying drawings, where—

Figure 1 is a bottom or under side view of the apparatus, with small portions in section. Fig. 2 is a side view. Fig. 3 is a top view, with a portion of the car broken away to show how the uncoupling-cam operates to open or uncouple the jaws. Figs. 4 and 5 are top and side views of the link made use of.

Some of the features shown in the accompanying drawings were patented to me by Letters Patent No. 149,376, dated April 7, 1874. The patentable improvements intended to be covered by these present Letters Patent are, first, an arrangement of springs with the jaws which allows them to give somewhat when the cars are pulled violently apart; secondly, a construction of the link which permits of its use with the common link.

The letters *a a* denote the platforms of two cars; *b b*, a pair of jaws pivoted to each upon the pins *c*, running through mortises *d*, which contain the springs *e*, bearing at front against pin *c*, and at rear against the end of the mortise. These springs give somewhat when the cars are pulled apart suddenly and with violence, as at starting, and so prevent disturbance of passengers and breakage. The letters *f* denote springs which tend to keep the jaws closed. *g* denotes the link with a head like

an arrow at each end, the part answering to the barb being a square shoulder. The jaws have faces corresponding to and fitted to receive and hold the ends of the link, and by pressing the end of the link against the ends of the jaws they will open and receive the end of the link. The letter *i* denotes a cam on the shaft *j*, with an operating-handle or wheel at top. When this cam lies longitudinally with the car it does not interfere with the working of the jaws, but by giving it a quarter turn, into the position shown in Fig. 3, it spreads the jaws apart and lets the link go free. The letters *k* denote buffer-rods bearing cup-shaped or concave ends fitting to convex ends on buffers *l*. This correspondence of shapes in the buffers tends to hold the cars in line as they come together, and so make the coupler work easily and correctly.

It is requisite to adapt my coupler for use with the common link. I do this by making the slot *m* in the end to receive the common link, and having the hole *n* for the common pin.

I claim as my invention—

1. In combination, pivoted jaws *b b*, provided with mortises *d*, pins *c*, and springs *e*, all substantially as described.

2. The links *g*, having arrow-heads at each end, and provided with slots *m* and pin-holes *n*, all substantially as described,

WILLIAM A. CUMMINGS.

Witnesses:

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