

L. FLECKENSTEIN.

Car-Couplings.

Patented Aug. 11, 1874.

No. 153,938

Fig. 1.

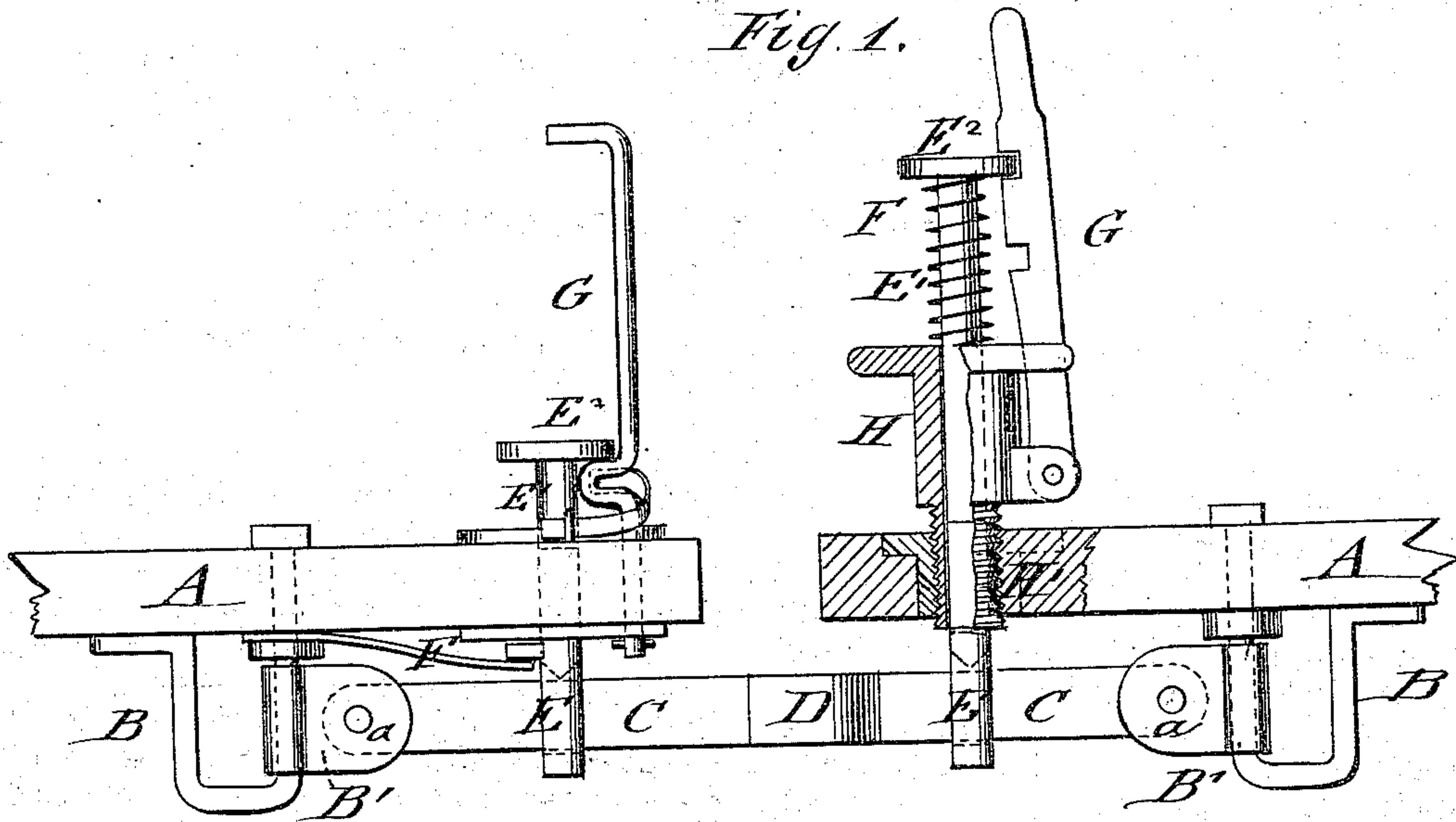
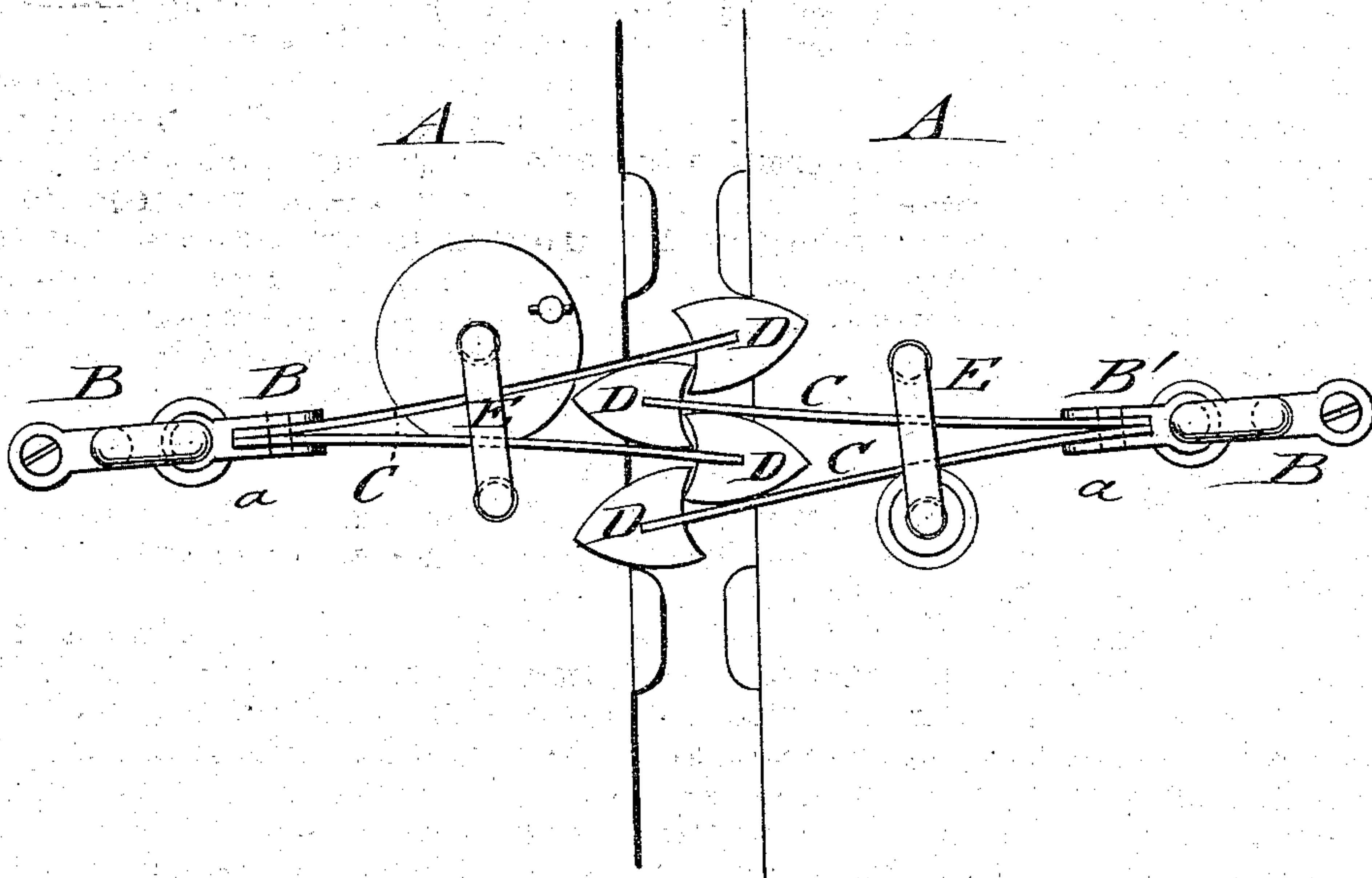


Fig. 2.



WITNESSES:

E. Wolff  
O. Sedgwick

INVENTOR:

L. Fleckenstein  
BY *Alminto*

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

LEONARD FLECKENSTEIN, OF CRESWELL, ASSIGNOR TO HIMSELF AND  
MARTIN MILLER, OF HIGHVILLE, PENNSYLVANIA.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **153,938**, dated August 11, 1874; application filed  
June 13, 1874.

*To all whom it may concern:*

Be it known that I, LEONARD FLECKENSTEIN, of Creswell, in the county of Lancaster and State of Pennsylvania, have invented a new and Improved Car-Coupling, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of my improved car-coupling, partly in section, through a modified adjustable construction of the same, and Fig. 2 is a bottom view of the same.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved car-coupling which couples automatically, and may be readily uncoupled for detaching the cars, separating them also when any one of the cars is thrown off the track.

My invention consists of two spring-bars with arrow-heads, which interlock firmly with similar heads of the connecting coupling. The spring-bars are pivoted to a standard at the bottom of the car, and supported in a surrounding guide-piece with vertical spring-rod having operating treadle and adjusting mechanism for uncoupling, raising, and lowering the coupling arrow-heads.

In the drawing, A represents the car-frame, to which is applied a strong standard, B, at the under side thereof, carrying a strong sleeve-shaped staple, B'. The spring-bars C are placed between the staple B', and pivoted to cross-pin *a*, to swing vertically thereon. The front ends of spring bars C are provided with arrow-heads, D, of suitable size and strength, which interlock with similar arrow-heads of the adjoining car, so as to form, by the action of the springs, a firm, yet yielding, connection of the coupled parts. The spring-bars C are retained in the required height and position below the car-platform by a strong guide-piece, E, which embraces the same, and increases their spring action to a considerable extent. A vertical extension-rod, E<sup>1</sup>, of guide-piece E passes through the platform in upward direction, and has a plate, E<sup>2</sup>, on its upper end, to which the foot is applied for pressing the guide-piece downward, and thereby lowering the spring-bars and uncoupling the

arrow-heads. A spiral or band spring, F, is applied in suitable manner to act on uncoupling-rod E<sup>1</sup>, for carrying the spring-bars back into their former position as soon as the foot is released. For the purpose of retaining the spring-bars in uncoupled position, a notched lever or spring crank-rod, G, may be placed over the treadle when in depressed position. The crank-rod construction is simpler and preferable for cars of equal height, but when the coupling is applied to cars with platforms of different heights it is necessary to adjust the arrow-heads below the platform, so that their heights correspond and produce a certain and intimate interlocking. I accomplish this by arranging on the uncoupling-rod E<sup>1</sup> a tubular sleeve, H, and turning it by a hand-wheel and outer screw-thread in a screw-socket, H', of the platform. The lower end of sleeve H acts on the top of guide-piece E, and lowers or raises it to the position required. When the arrow-heads are adjusted and centered correctly, they will couple automatically on the approach of the cars, and may be instantly and readily uncoupled by the action of the foot on the treadle, or, in case of accidents, by the change of relative position of the arrow-heads.

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

1. The combination, with the pivoted spring-bars C C having arrow-heads D D, of pivoted staples B', standards B, guide and supporting piece E, and a spring, as shown and described.

2. The combination, with the bars C C, guide-piece E, and rod E<sup>1</sup>, of a spring and a notched lever, G, pivoted to a fixed support, as shown and described, to operate as specified.

3. The combination, with guide-piece E and treadle-rod E<sup>1</sup>, of an adjustable mechanism, H H', for raising or lowering spring-bars to couple with cars having platforms of different heights, substantially as specified.

LEONARD FLECKENSTEIN.

Witnesses:

A. R. WITMER,  
JOHN SLEEGER.