R. K. WELCH.

CAR-COUPLING.

No. 181,884. Patented Sept. 5, 1876.

Fig. 1.

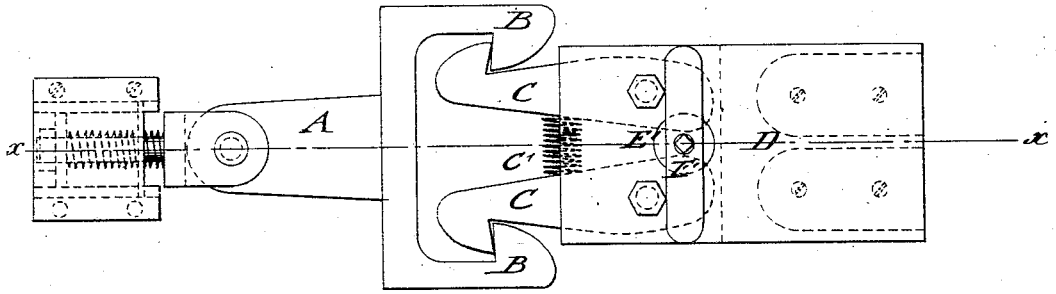
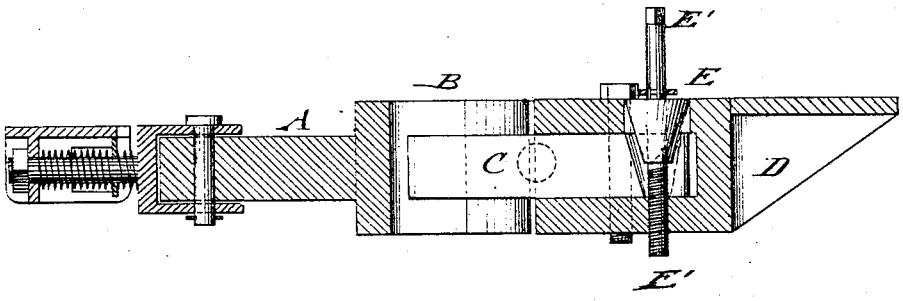


Fig. 2.



WITNESSES:

H. Rydquist.

John Goetzals

INVENTOR:

R. K. Welch

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ROBERT K. WELCH, OF FRANKFORD, PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **181,884**, dated September 5, 1876; application filed July 22, 1876.

To all whom it may concern:

Be it known that I, ROBERT K. WELCH, of Frankford, Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view, and Fig. 2 a vertical longitudinal section on line *x x*, Fig. 1, of my improved car-coupling.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved automatic car-coupling that uncouples instantly when any one of the cars is thrown from the track.

In the drawing, A represents a draw-head, which is applied to one end of the car, and pivoted to a sliding and spring-acted bolt, guided in bearings of the car-frame, in the usual manner. The draw-head A swings in a suitable guide-band of the car, as required for turning curves, &c. The end of the draw-head A is made of U shape, the outermost ends being provided with inwardly-projecting hooks B, that interlock with spring-acted coupling-hooks C at the end of the adjoining car. The spring-hooks C are fulcrumed to a casing, D, bolted to the car-frame, and forced to the outside by a spiral spring, C′, secured intermediately between the hooks. The rear ends of the spring-hooks C may be acted upon by an inverted cone, E, that is keyed to a screw-spindle or shaft, E′, so as to force, when turned down by a suitable key, the rear ends of the spring-hooks to the outside, and cause the front ends to approach each other until they release the interlocking hooks of the draw-head A. By turning the spindle and cone back, the spring-hooks assume their former position, ready to couple automatically with draw-head A when the cars approach each other.

The key may be applied to the upper end of the spindle from the platform or top of the car as the coupling is applied to a passenger or freight car.

The coupling A, as well as casing D, may be arranged with suitable sockets and holes to couple with cars having the common pin-and-link coupling.

The coupling is adapted to connect cars with platforms of different heights, and has the advantage of uncoupling as soon as any car is thrown off the track, avoiding thereby accidents.

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

1. The double-hook draw-head A B B, pivoted at the rear to a sliding spring-bolt, to adapt it to be used in the manner described.

2. The lever-hooks C C, of a car-coupling, provided with intermediate front spring, and extended rearward on each side of a vertically-movable cone, E, as and for the purpose specified.

ROBERT K. WELCH.

Witnesses:

JAS. ANDERSON,
JOSEPH BALL.