F. M. CAMPBELL.

CAR-COUPLING AND BRAKE.

No. 169,957. Patented Nov. 16, 1875.

Fig. 1

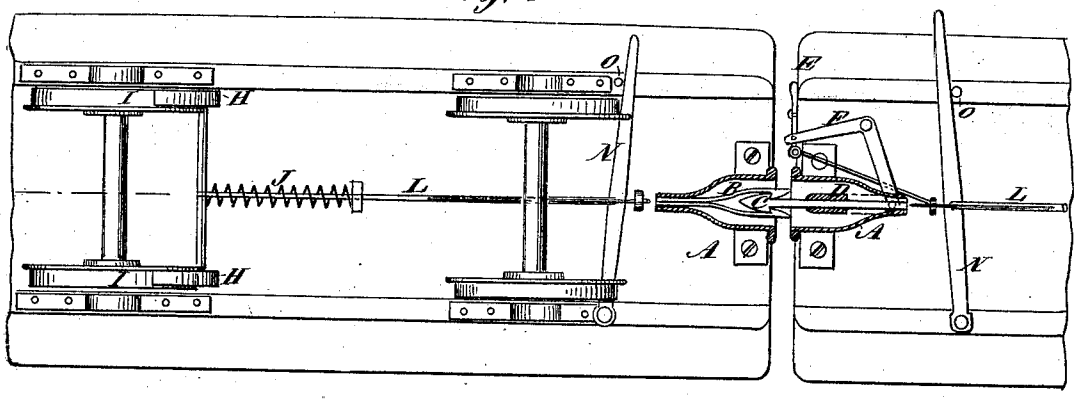


Fig. 2

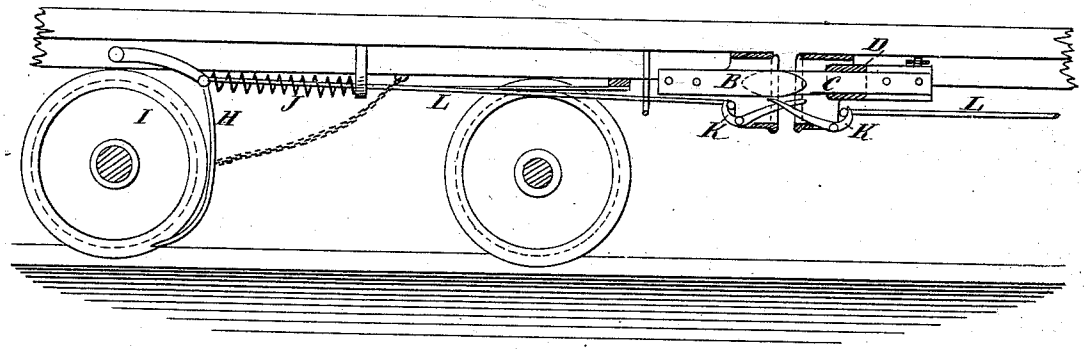
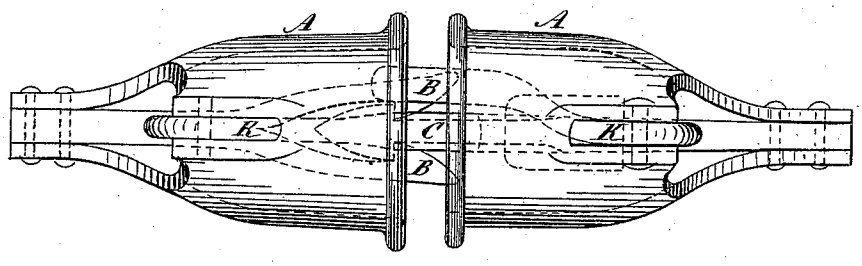


Fig. 3



WITNESSES:

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FRANK M. CAMPBELL, OF CROW WING, MINNESOTA.

IMPROVEMENT IN CAR COUPLINGS AND BRAKES.

Specification forming part of Letters Patent No. **169,957**, dated November 16, 1875; application filed September 11, 1875.

To all whom it may concern:

Be it known that I, FRANK M. CAMPBELL, of Crow Wing, in the county of Crow Wing and State of Minnesota, have invented a new and Improved Car Coupling and Brake, of which the following is a specification:

My invention consists of a novel arrangement of self-coupling apparatus, also contrived for uncoupling without attention from the attendant in case a car falls through or flies the track; and it also consists of a brake contrivance so connected with the aforesaid coupling that the brakes are let free by the coupling, and thrown on the wheels by a spring whenever the coupling disconnects.

Figure 1 is a plan of a couple of cars inverted, and horizontal section of the draw-heads, showing my improved coupling and brake attachment. Fig. 2 is a longitudinal section of the draw-heads and side elevation of the cars, and Fig. 3 is an enlarged plan view of the draw-heads and couplings.

Similar letters of reference indicate corresponding parts.

A represents the draw-heads; B, the double coupler; C, the single one, and D the uncoupling slide.

The double coupler consists of a couple of spring-hooks, between which the other, which is a dart-headed piece, is pressed, so as to couple automatically when the cars come together.

The uncoupling is effected by forcing the slide D between the heads of the double coupler, the slide being worked by the hand-lever E and the bell-crank F. The brakes H are contrived to be pressed on the wheels I by a spring, J, and they are held off the wheels by a hook, K, and rod L. The hooks are pivoted to the buffers or draw-heads, and provided with long arms, which are shown extended forward, and bearing each against the opposite coupler. It is apparent that, in consequence of this arrangement, the hooks will turn on their pivots and release the rod L whenever the couplers separate. Hence the brakes will be automatically applied whenever two cars are disconnected. It is, however, generally undesirable that the brakes should be applied except in case of accident—as, for instance, when a car jumps the track. A lever, N, is accordingly employed to keep the brakes off when it is required to disconnect cars in the usual way, in and about depots, &c. Said lever is connected to the rod L, so as to draw it forward, and having a stud-pin, O, or other contrivance for holding it; or the rod may extend through and hook up in a pin at the end of the platform.

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

1. The combination of the double spring-coupler B, single dart-headed coupler C, and the slide D, substantially as specified.

2. The combination of the spring-brakes H, rod L, pivoted hook K, and a coupler, B or C, as shown and described.

FRANK M. CAMPBELL.

Witnesses:

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