J. WITSIL.
Car-Coupling.

No. 214,739. Patented April 22, 1879.

Fig. 1.

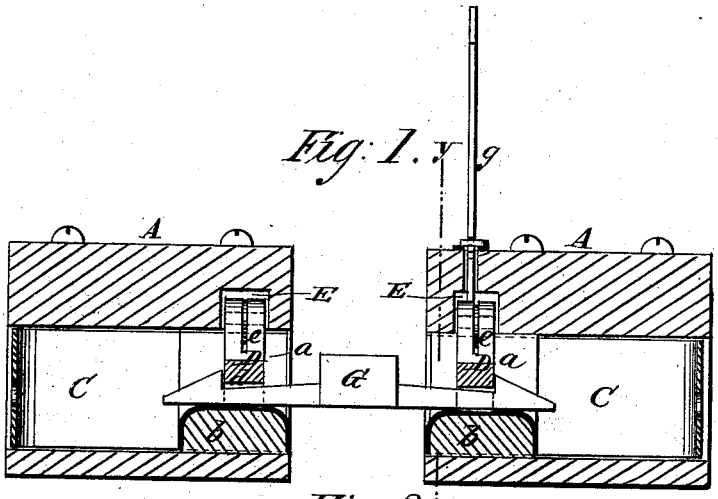


Fig. 2.

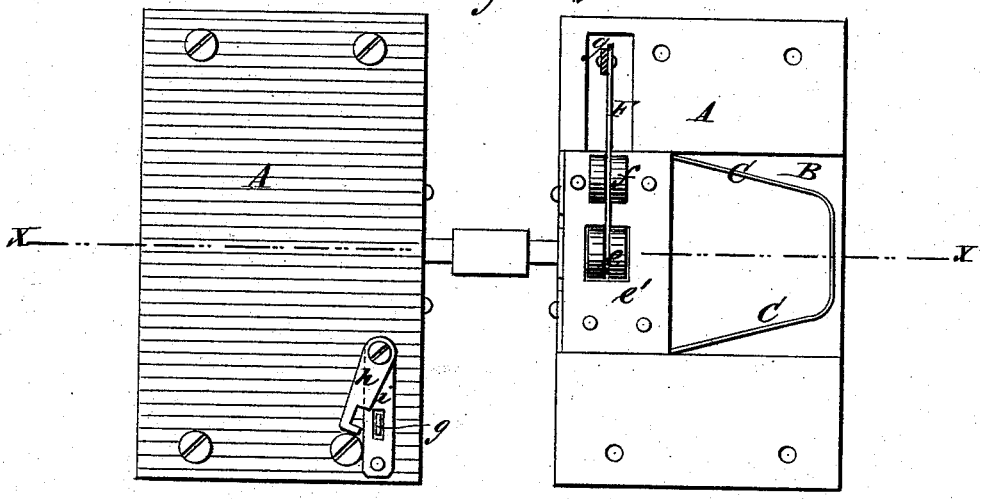
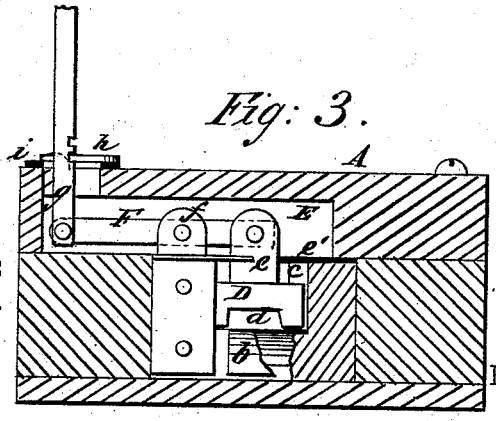


Fig. 3.



WITNESSES:

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JOHN WITSIL, OF BRIDGEBOROUGH, NEW JERSEY.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **214,739**, dated April 22, 1879; application filed February 26, 1879.

To all whom it may concern:

Be it known that I, JOHN WITSIL, of Bridgeborough, in the county of Burlington and State of New Jersey, have invented a new and Improved Car-Coupling, of which the following is a specification.

The object of this invention is to provide an automatic coupling for railway-cars that can be operated from the platform by a lever and by means of a pawl engaging the lever-bar. The coupling-latch can be securely fastened down over the link.

It also consists in using the platform as a draw-head by an arrangement that will be fully described.

The invention will be first described in connection with the drawings, and then particularly ascertained in the claim.

In the accompanying drawings, Figure 1 represents a longitudinal section on line *x x*, Fig. 2, of two car-platforms connected together by my improved coupling. Fig. 2 is a plan of the same, one platform having the top plate removed; and Fig. 3 is a cross-section of a platform on line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a car-platform, in the middle whereof is a chamber, B, the sides of which are formed of metal plates C. This forms the draw-head of the coupling.

A socket, *a*, leads from the end of the platform in the middle to the chamber B. The bottom of the socket is formed by a convex block, *b*, covered with a metal plate. It is made convex, so as to present a rounded or inclined face to receive the end of the coupling-link, which is thus led into the socket without the necessity of guiding it with the hand.

D represents the latch. It is placed crosswise of the socket *a*, with its ends held in vertical slots or ways *c*, in which it moves freely up and down, resting, when down, on the top of block *b*. Its under edge, however, is recessed, as shown at *d*, so that an opening is afforded for the entrance of the end of the link.

Midway of its length there rises from its upper edge a stud, *e*, through covering-plate *e'*, into a recess, E, in the top plate of the platform. In this recess is a lever, F, placed horizontally and parallel with the latch.

It is fulcrumed in the standard *f*, and its inner end is pivoted to the stud *e*. Its opposite end is pivoted to the lower end of the bar *g*, rising up through the platform, which bar is provided with ratchet-teeth that can be engaged by latch-pawl *h*, pivoted to plate *i* on the platform, through which the bar passes.

The coupling-link G is a straight bar, having a boss midway of its length to stop it from entering too far in the draw-head, with hooked ends, which are engaged by the latches D, the parts beyond the hooks being chamfered down, so that they will pass under the latch and lift it to the hooks in the act of coupling.

The operation of the device is very simple. The link being attached to one platform, the latch engaging it between itself and the block *b*, holds it in a horizontal position.

When another car is to be connected with the one to which it is attached, the cars are brought together, and when near enough the free end of the link enters the socket *a*, and its chamfered end passing in the recess *d* lifts the latch, and when the hook is under it the latch drops, catching the link, and thus coupling the cars together in the manner shown in Figs. 1 and 2, and when thus engaged the lever is fastened down, holding the latch in place by throwing the latch *h* in connection with the bar *g*, whereby the cars are secured against uncoupling.

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

The combination of the latch D, provided with the recess *d*, the lever F, pivoted to the said latch and fulcrumed in the standard *f*, the lever *g*, pivoted to the lever F, and provided with ratchet-teeth, and the latch *h*, pivoted to the plate *i* on the top of the platform A, substantially as and for the purpose described.

JOHN WITSIL. [L. S.]

Witnesses:
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HOWARD BATES.