A. M. MILLER.

Link-Guide for Car-Couplings.

No. 203,846. Patented May 21, 1878.

Fig. 1.

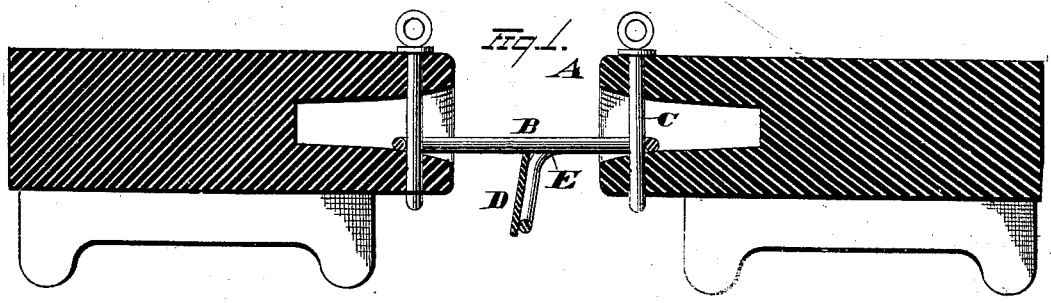


Fig. 2.

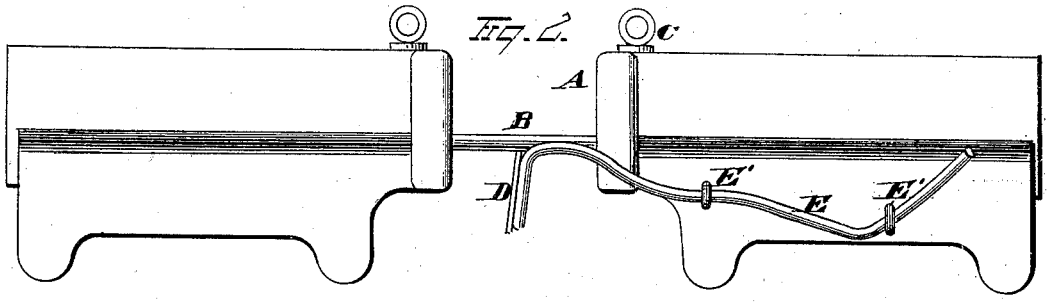


Fig. 3.

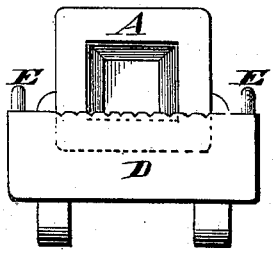
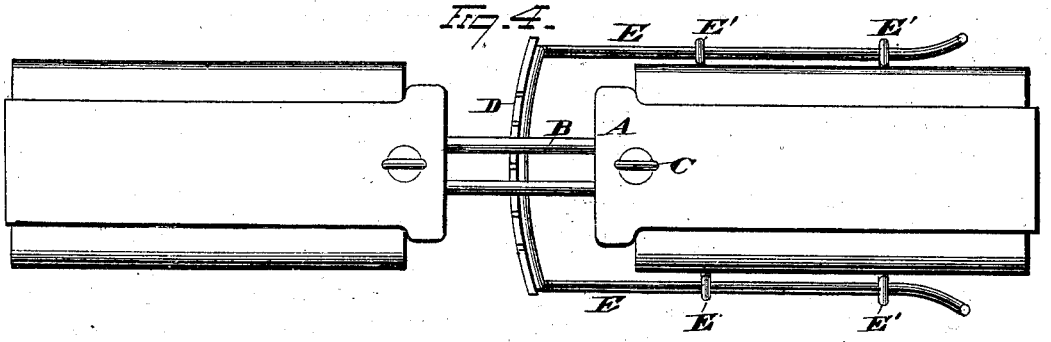


Fig. 4.



WITNESSES

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ASHER M. MILLER, OF STURGIS, MICHIGAN.

IMPROVEMENT IN LINK-GUIDES FOR CAR-COUPLINGS.

Specification forming part of Letters Patent No. **203,846**, dated May 21, 1878; application filed October 23, 1877.

To all whom it may concern:

Be it known that I, ASHER M. MILLER, of Sturgis, in the county of St. Joseph and State of Michigan, have invented certain new and useful Improvements in Supports and Guides for Coupling-Links of Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to supports and guides for coupling-links of cars.

In the drawings, Figure 1 is a longitudinal section of a device embodying my invention; Fig. 2, a side elevation of the same; Fig. 3, a front view of the same. Fig. 4 is a plan view.

My invention consists in the following parts and combinations, as hereinafter specified and claimed, wherein A is the bumper of a car; B, the coupling-link; C, a coupling-pin.

Thus far the parts may be of any desired construction, inasmuch as these constitute no essential part of my invention.

D is a plate, roughened upon its upper or bearing surface. Supporting this plate and operating it are two lateral arms, E, curved substantially as shown, and passing through guides E′. The arms E, instead of being formed curved in the exact manner shown in the drawings, may be varied immaterially from such detail curve, provided the form is adapted to accomplish substantially the same result as that herein set forth.

It will be observed that, as the peculiarly-curved arms E are thrust forward, the plate D is caused to be lowered or depressed at first, in order to clear the coupling-pin, if the latter should project downward through the draw-head. The plate is then caused to be raised or elevated as it is moved still farther forward by reason of the curved form of the side arms, which support it, and which are given this vertically-varying movement as they slide through the guides E′. The degree of elevation or position given to the coupling-link can easily be governed by the amount of thrust given the arms E.

The roughened surface of the plate D is provided to prevent any lateral displacement of the link by the movement of the car.

It will be observed that the rear portions of the arms E are made to flare outward away from the body of the bumper A. This flare is provided for the following purpose: When the plate D is placed in a position for retaining the link and coupling, the contact of the arms E against the guides E′ causes sufficient friction to retain the plate D in its supporting position so firmly as not to be liable to displacement by the jolting of the car. When the cars are in the act of coupling, the bumper of the opposing car, by impinging against the plate D, drives it back to its return position.

I make the link-supporting plate in the manner shown so that its lower longitudinal body shall project forward from its remaining body in a vertically-angular plane, while the entire body of the plate is made so as to form a horizontally arched or curved surface. As the lower body of the plate is secured to the front cross-rod, which connects the same with the side arms, it follows that this cross-rod must hence act as a brace to the plate as the latter receives the stroke of the opposing car. This construction, together with the horizontal arched or curved form of the plate, gives strength to the latter and causes it to last longer in use.

What I claim is—

1. A car-link guide made with side arms which slide in suitable guideways, said arms being formed curved or bent, as described, whereby the link-guide may automatically operate in coupling cars, substantially as and for the purposes described.

2. In a car-link guide, the combination, with the guides, of the sliding arms, formed with their free extremities flaring outward, as described, whereby the said link-guide is prevented from displacement by reason of the movement of the car, substantially as set forth.

3. The combination, with the side arms, of the link-guiding plate, formed with its lower longitudinal body projecting forward and braced by the cross-rod which connects the arms, said guiding-plate having a horizontally-arched body and a serrated upper edge, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ASHER M. MILLER.

Witnesses:

A. F. HUBBELL,

F. TOUMEY.