

E. N. GIFFORD.
Car-Couplings.

No. 142,226.

Patented August 26, 1873.

Fig. 1.

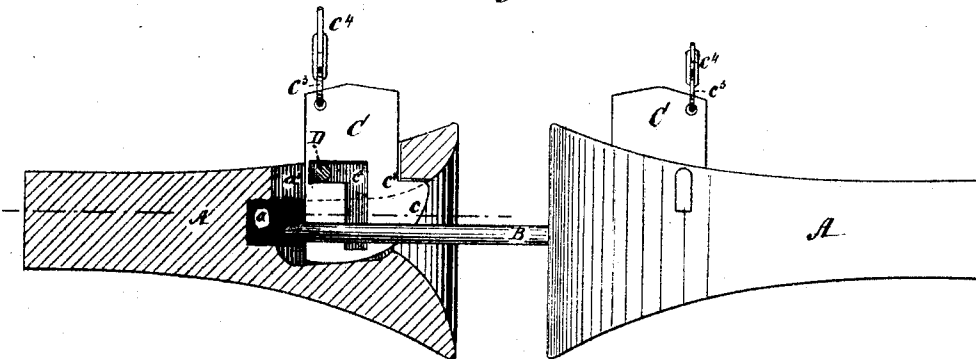
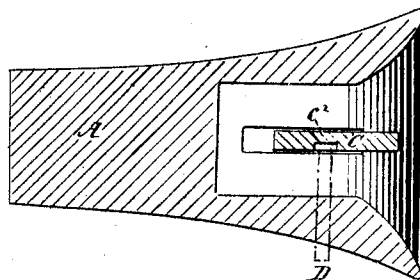


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

EZRA N. GIFFORD, OF CLEVELAND, OHIO, ASSIGNOR TO HIMSELF, THEODORE B. STEVENS, AND FRANCIS A. BRADY, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 142,226, dated August 26, 1873; application filed May 5, 1873.

To all whom it may concern:

Be it known that I, EZRA N. GIFFORD, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Car-Coupling; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is partly a sectional elevation of the coupling. Fig. 2 is a vertical section of one of the draw-heads.

My invention is designed as an improvement upon the coupling for which Letters Patent were issued to A. Pritz, March 25, 1873; and consists in forming a right-angled slot or recess in the side of the coupling or catch plate, and a right-angled notch in its forward edge, to adapt it to be held in place, and also guided in its movements, mainly, by a short cross-bolt projecting through the side of the draw-head, as hereinafter described.

In the drawing, A A represent two draw-heads, B the connecting-link, and C C the trigger-catches. The latter are made curved on the front edges *c*, in the usual manner, to allow the advancing link to raise them, are recessed in front so as to produce the shoulders *c'*, and each is provided with a right-angled groove, *c''*, in one side to allow it to slide vertically, as well as horizontally, on the end of a pin or bolt, D, that passes partially across the vertical slot *a* of draw-head. *a'* is a groove made in the bottom of the draw-head, and having a shoulder at each end, which acts as a limiting-stop to the move-

ment of the catch in either direction. *c'''* is a ring, and *c''''* a chain, for which any equivalent contrivance may be substituted to lift the catch and allow the cars to be uncoupled. The slot *a* and groove *a'* prevent too much lateral play, while they guide the catch as it is moved backward and forward by the link.

The application is as follows: The link, coming against the catch, pushes it back to rear end of slot *a* and groove *a'*, when it is compelled to rise until the front of link has passed thereunder, when it falls. As soon as the cars start the link draws the catch forward, and the shoulder *c* going beyond the forward end of slot *a*, and the cross-bolt D traversing the horizontal portion of slot *c''*, the catch cannot bounce out of the link, nor can it be drawn out in either a vertical or diagonal direction, but must first be moved back horizontally to free the cross-bolt and the shoulder of the draw-head.

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

The catch-plate C, provided with the right-angled side slot or groove *c''* and a right-angled shoulder, *c'*, in its forward edge, in combination with the short cross-bolt D and the draw-head A, whereby said plate is held in place when the cars are coupled and guided in its movements when being withdrawn, as set forth.

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Witnesses:

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