N. NILSON.

Car-Couplings.

No. 147,963. Patented Feb. 24, 1874.

Fig. 1.

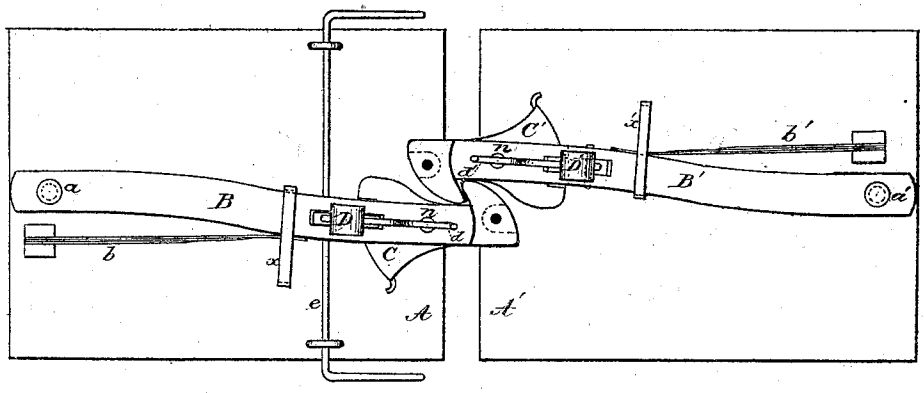


Fig. 5.

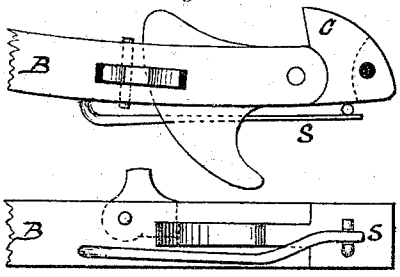


Fig. 2.

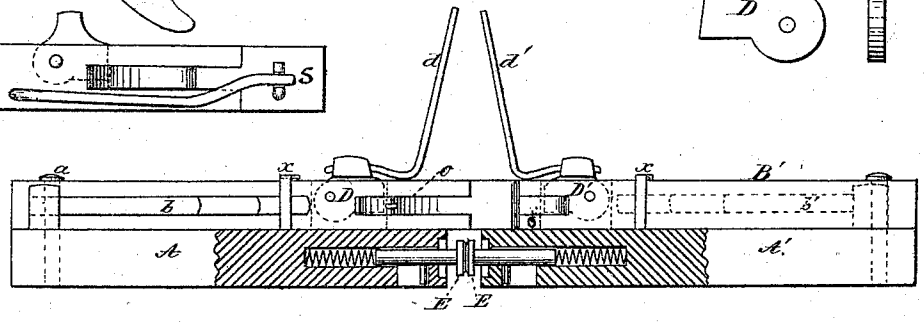


Fig. 4.

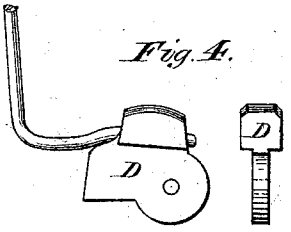
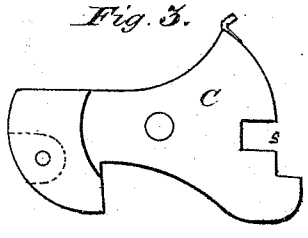


Fig. 3.



Witnesses.

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per attys.

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UNITED STATES PATENT OFFICE.

NILS NILSON, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO HIMSELF AND WILLIAM W. McNAIR, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **147,963**, dated February 24, 1874; application filed December 18, 1873.

To all whom it may concern:

Be it known that I, NILS NILSON, of Minneapolis, in the State of Minnesota, have invented a new and Improved Car-Coupling; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan view, showing my device. Fig. 2 is a longitudinal vertical section. Figs. 3, 4, and 5 are details to be referred to.

The object of my invention is to provide an automatic car-coupling which can be released without going between the cars; and it consists of two bars, pivoted to the car-trucks, having a small horizontal play, and carrying in their ends, slotted for the purpose, headed cams, which engage with each other and hold the cars together, in combination with suitable springs, as hereinafter described.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out.

Referring to the said drawings, A A′ are the trucks of two cars, having the bumpers E E as ordinarily arranged. On the platforms are two bars, B B′, bent slightly from a line, as shown, and having slotted heads or ends *o o′*, as seen in Fig. 2, and projecting slightly over the end of the platform. Inserted in the slotted heads are cam-shaped hooks C C′, (see Fig. 3,) working in opposite directions, so that when they are brought together they will interlock. These hooked heads are pivoted at *n n′*, and are slotted in their ends at *s′*, for the reception of a stop, D, which holds them rigidly when interlocked. They also have the stops to prevent them revolving outside of a proper arc. The stops D D′ are provided with levers *d*, *d′*, and *e*, for disengaging them from the hooked heads, either by a person on the platform or upon the ground at the side of the car. Eyes *x x′*, formed of rods properly bent and inserted into the platform, limit the movement of the bars B B′, and springs *b b′*, which bear against the side of the bars B B′, respectively, keep them against the sides of the eyes nearest the center of the car-truck. The spring S, as shown in Fig. 5, is secured to the bars B B′, and bears against the heads C C, so as to force the catches in a locked position as soon as they passed each other.

The operation of my device is as follows: The stops D D′ being down, the cars A and A′ approach each other; the curved heads strike each other, and the springs S S and *b b′* force them to lock. When it is desired to uncouple the cars, it is only necessary to raise the stop D from out the slot *s*. Then the pressure of the other hooked head will turn C and allow C′ to escape.

I am aware that cam-shaped heads have been used, as shown in the patent of Van Horsen and Brown, and therefore do not claim them broadly; but

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

A car-coupling device consisting of the draw-bar B, having the pivoted cam-shaped head C, the removable stops D, and springs *b′* S, all combined and constructed to operate substantially as set forth.

NILS NILSON.

Witnesses:

CHAS. H. WOODS,

ROBERT S. BRYANT.