

W. DAY.
Car-Couplings.

No. 146,882.

Patented Jan. 27, 1874.

Fig. 1.

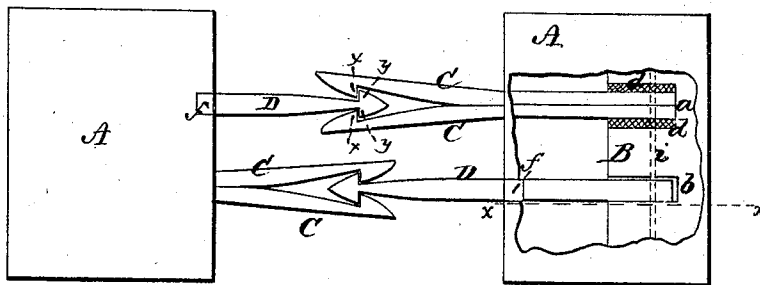
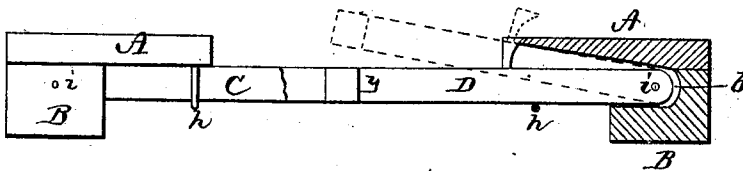


Fig. 2.



WITNESSES.

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IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **146,882**, dated January 27, 1874; application filed December 22, 1873.

To all whom it may concern:

Be it known that I, WESLEY DAY, of Baltimore, in the county of Baltimore and in the State of Maryland, have invented certain new and useful Improvements in Car-Couplings; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a car-coupling, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view, part in horizontal section, of my improved car-coupling; and Fig. 2 is a side elevation, part in vertical section, of the same.

A represents the platform of a railroad-car, and B one of the timbers beneath the platform. In the timber B are made two mortises, *a* and *b*, from the front side rearward, for a suitable distance. In the mortise A are inserted two bars, C C, with a rubber or other elastic block, *d*, or suitable springs, on each side. The outer or front ends of these bars C C bend outward, as shown in Fig. 1, and are, at or near their extreme ends, provided with a shoulder or catch, *x*, on the inner sides. The two bars C C thus form a double spring-catch on each car. In the mortise *b* is inserted a tongue or bar, D, having a spear-shaped head upon its outer end, forming a shoulder or catch, *y*, on each side. This tongue or bar is to enter between the tongues or bars C C of the adjoining car, and the catches *x x* fasten on the catches *y y*, forming a double coupling, with double catches to each coupling, between the car, one on each side of the center line drawn longitudinally through the cars.

The tongues, catches, and springs forming this coupling are each a fac-simile of those

upon the adjoining car, so as to operate as alternates or counterparts whichever end of the car may be presented foremost; and, also, so as to uncouple immediately when either the one or the other car gets off the track.

A suitable bumper is, of course, to be arranged projecting between the two couplings; or one bumper may be arranged on each side.

The tongues or bars C C and D are held in their respective mortises or positions by means of a rod, *i*, passing through the cross-bar or timber B, the tongues C C being fastened in the mortise *a*, while the tongue D is loose in its mortise *b*, so as to move up and down, as on a pivot. This tongue D, however, is so arranged that it cannot fall below a horizontal line, but may be raised upward on its pivot. The tongues are supported by stirrups *h*, or other suitable means, in any convenient manner.

When the cars are coupled with this coupling, there is an absolute impossibility of self-uncoupling as long as the cars are on the track; and the moment either car gets off the track, they will uncouple with an absolute certainty. If, for instance, one car should merely get off the track without turning over, the car thus off will be so far below the one that remains on the track that the coupling-tongue on the former will drop down away from the others. If one car turns over, the coupling-tongues will almost instantly release themselves.

In turning curves, it will be noticed that the inside catches do not bear against each other, but the cars are pulled by the outside catches, thus shifting the draft to the circumference. The coupling, therefore, adapts itself to every variation of radius in going around curves, and thus virtually making a straight track.

For uncoupling the cars, the tongue or bar D should be connected to a lever or other suitable device, so as to be raised up from between the tongues C C.

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

The combination of the timber B, having mortises *a* and *b*, the tongues C C, placed in the mortise *a*, and provided with interior catches *x x*, the tongue D, pivoted in the mortise *b*, so that it can be thrown upward and out from the catches in the tongues C on the opposite car, and provided with shoulder *y* on each side, the rubber blocks *d d*, rod *i*, and guide *h*, all constructed to operate substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of December, 1873.

WESLEY DAY.

Witnesses:

C. L. EVERT,
A. N. MARR.