J. PHILIPS.

CAR-COUPLING.

No. 185,646. Patented Dec. 26, 1876.

Fig. 1.

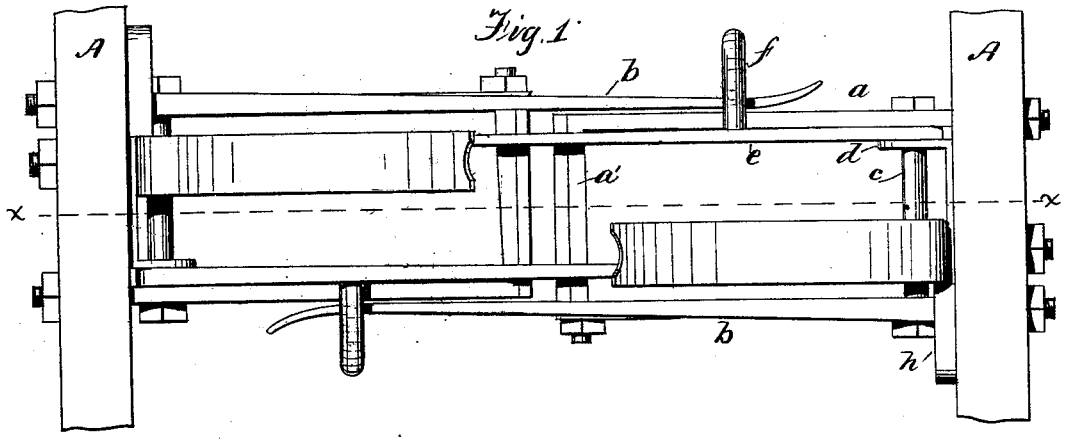


Fig. 2.

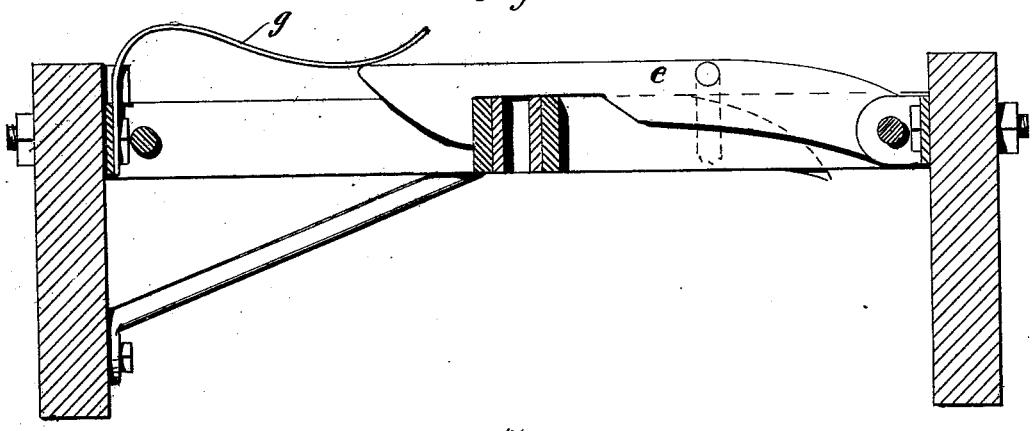
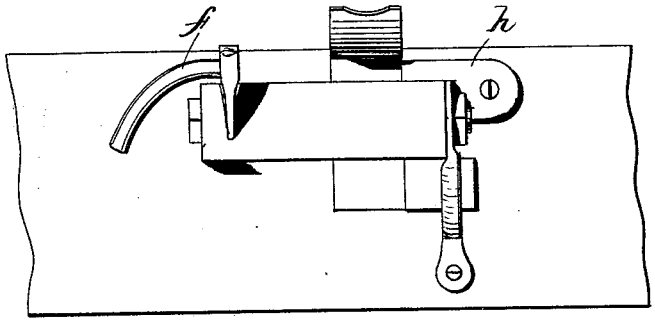


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES PHILIPS, OF NEW HOPE, VIRGINIA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **185,646**, dated December 26, 1876; application filed June 17, 1876.

To all whom it may concern:

Be it known that I, JAMES PHILIPS, of New Hope, in the county of Augusta and State of Virginia, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to couplings for railway-cars, and belongs particularly to that class which are adapted to couple automatically when the cars are brought together, and also to uncouple automatically when one of the cars, by any accident, is thrown from the track.

The invention consists in details of construction, which I shall proceed particularly to describe, and which are illustrated in the drawings hereunto annexed, and which form a part of this specification.

In these drawings, Figure 1 represents a plan view of the couplings when interlocked. Fig. 2 is a section through the line *x x* in Fig. 1. Fig. 3 is an end view of a section of the end sill of the car with the coupling attached.

The same letters refer to identical parts in all the figures.

A A represent the end sills of the car, to which the couplings are attached. Secured through one of these beams is a strong iron bar, *a*, one end of which passes through the beam, and is held therein by a nut. The other end is bent at right angles, and is secured to the bar *b*, which is also fixed in the end silll A. The bars *a* and *b* thus form a loop, over the end of which (marked *a'*) the hook catches. The hook is pivoted in the bars *a b* by means of a bolt, *c*, which passes through both, and also through a lug, *d*, attached to the beam close up to the hook or latch. The hook is thus held between the lug *d* and the bar *a*, and thus prevented from any lateral movement, while at the same time it is permitted to rise and fall freely on the pivot-bolt *c*.

The hook, which is marked *e*, has a finger, *f*, (shown in Figs. 1 and 3,) projecting from the outer side, and curved downward, so as to pass over the projecting end of the bar *b* of the opposite car when the couplings are interlocked.

Over the hook, when interlocked as shown in Fig. 2, extends a spring, *g*, which serves to keep the hook down and prevent any accidental displacement when the cars are running. One end of this spring is bent upward, in order to allow it readily to pass over the hook when the cars are coupled. The other end, bent downward, is bolted to the beam by a single bolt, so as to allow it to be turned down and out of the way of the hook whenever it is necessary to uncouple the cars. A button, *h*, holds it in place when it is turned up so as to cover the hook. The hooks are made as shown in Fig. 2, recessed underneath, so as to fit over and rest upon the cross-bars *a'*, and the draft of the cars is thus made to fall upon these cross-bars and hooks.

It is obvious that the construction is the same for both cars, and that, being precisely the same on both ends of every car of a train, any two cars will readily couple, the beveled ends of the hooks passing over the bars *a'* of the opposite car, and the projecting bars *b* of each car passing under the finger *f* upon the hook of the other car.

The operation of automatic uncoupling is equally obvious from the construction described.

Upon any displacement of the car, as by dropping or overturning, the projecting bar *b* of each car will lift, by means of the finger *f*, the hook of the opposite car.

It is obvious that suitable bumpers may be placed upon the end sill of the car, as with any of the old forms of coupling.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. The coupling consisting of the bars *a*, *a'*, and *b*, in combination with the hooks *e*, having the fingers *f* projecting over the ends of the bars *b*, as and for the purpose set forth.

2. In combination with the hooks, with their fingers *f* projecting over the bars *b*, in the manner described, the springs *g*, pivoted so as to turn out of the way, adapted to hold the hooks in place when they are interlocked over the bars *a'*, as and for the purpose set forth.

3. In combination with the spring *g*, constructed and operating as described, the button *h*, as and for the purpose set forth.

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Witnesses:

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