

TERRY & HAWLEY.

Car Coupling.

No. 107,837.

Patented Sept. 27, 1870.

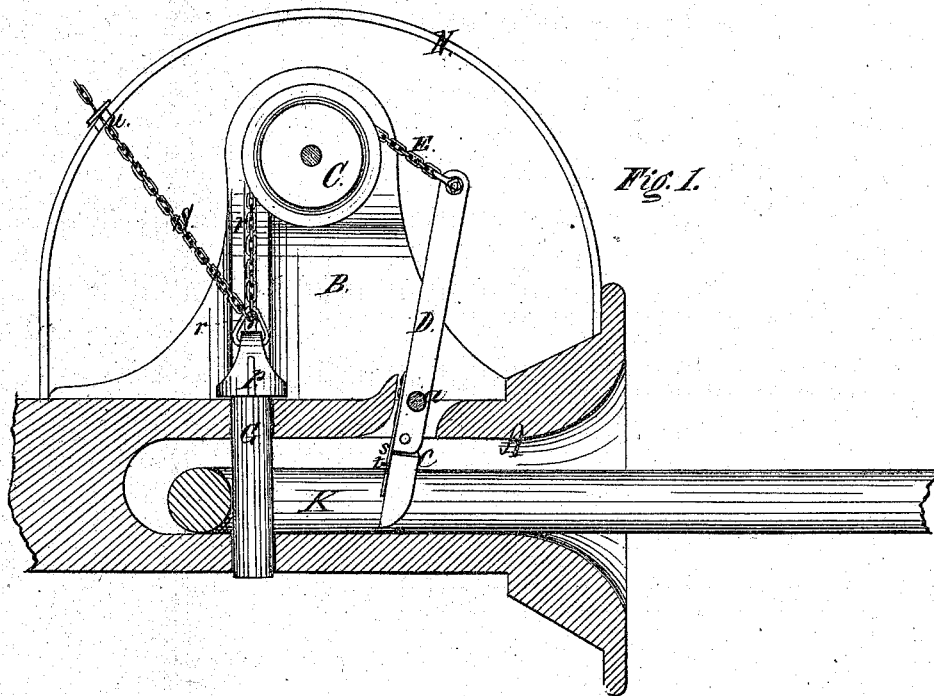
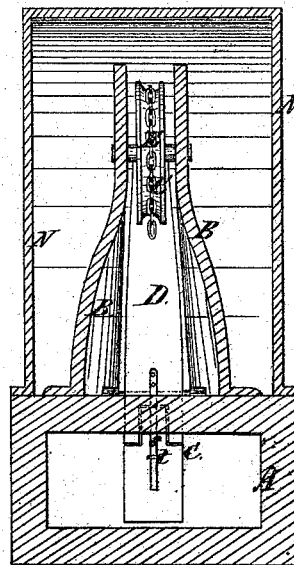


Fig. 1.

Fig. 2.



Witnesses:

R. F. Osgood  
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# United States Patent Office.

GEORGE B. TERRY, OF PITTSFORD, AND WARREN G. HAWLEY, OF GORHAM, NEW YORK.

Letters Patent No. 107,837; dated September 27, 1870.

## IMPROVEMENT IN CAR-COUPPLINGS.

### *To all whom it may concern:*

Be it known that we, GEORGE B. TERRY, of Pittsford, in the county of Monroe and State of New York, and WARREN G. HAWLEY, of Gorham, in the county of Ontario and State aforesaid, have invented a certain new and useful Improvement in Car-Couplings, of which the following is a specification.

### *Nature of the Invention.*

This invention consists in the arrangement of the coupling-pin, lever, and connections, as hereinafter described.

### *General Description.*

In the drawing—

Figure 1 is a longitudinal vertical section, and Figure 2, a vertical cross-section.

A is the draw-head or bumper, of any suitable form, having upright bearings B B, between which rests the pulley C.

A lever, D, is pivoted to the draw-head at *a*, to which is attached a chain or cord, E, which passes over pulley C, and is secured at the opposite end to the head of coupling-pin G.

The lower end of this lever is formed with a toggle, *c*, and has a spring, *s*, attached to the upper, and connected to the lower, section by a loop, *t*, or equivalent. This toggle stiffens inwardly, but yields outwardly, and the spring serves to give it the proper degree of tension.

The operating parts are inclosed in an outer casing or box, N, secured to the draw-head.

An independent chain, S, attached to the head of the coupling-pin, and extending up through opening *u* of the outer casing N is employed to raise the pin in uncoupling.

The head of the pin is provided with lugs *p p*, which slide in vertical grooves *r r* of the bearings, and thus keep the pin in place.

We contemplate, in some instances, to attach one or both draw-heads to the frame of the car, by downwardly-projecting bearings, with adjustable holes in the front one, by which the angle of the mouth may be changed by simply removing a pin and inserting in another hole. This is to accommodate to cars of different heights.

The operation is as follows:

The link K, on entering the draw-head, first strikes against and pushes back the toggle *c*, causing the same to become rigid, and making the lever D to turn, thereby drawing the chain E over pulley C, and raising the coupling-pin a sufficient distance to allow the link to pass under. As soon as the end of the link has passed under and left the toggle *c*, it is carried by the momentum beyond and under the coupling-pin G, which latter, now having nothing to withhold it, falls into its former position by its own gravity, thereby securely locking the link.

When it is desired to uncouple or withdraw the link, the coupling-pin G is raised by means of the chain S, which extends out through the casing N to the hands of the operator. In its withdrawal the end of the link comes in contact reversely with the toggle *c*, causing the same to yield until the link frees, when the spring causes the toggle to assume its normal position, when it is ready for use again.

An advantage rests in the use of this coupling, from the automatic action, whereby no force or concussion can be brought upon the coupling-pin itself, by which it may become bent or broken.

The lever serves as the pioneer of action, and the coupling-pin only follows its movements. The link never comes in contact with it in entering.

A special advantage, however, results, and to which we lay a claim, in the use of the toggle at the lower end of the lever. Were it not for this, the device would be inoperative.

What we claim, and desire to secure by Letters Patent, is—

The toggle *c* and spring *s*, combined with the lever D, chain or cord E, pulley C, and coupling-pin G, the whole arranged as described, and operating in the manner and for the purpose specified.

In witness whereof, we have hereunto set our hands this 23d day of May, 1870.

GEORGE B. TERRY.

WARREN G. HAWLEY.

Witnesses:

R. F. OSGOOD,

G. WILLM. MIATT.