W. B. PARSONS.

Car Coupling.

No. 102,149. Patented April 19, 1870.

Fig. 1.

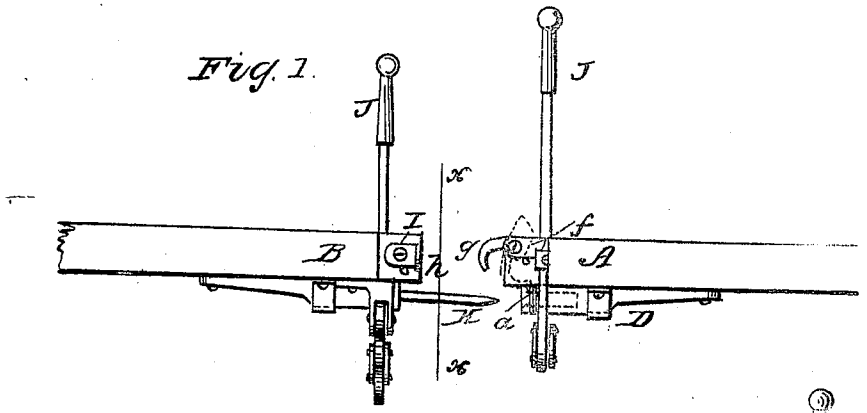


Fig. 2.

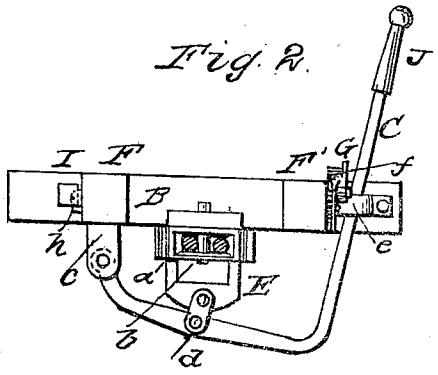
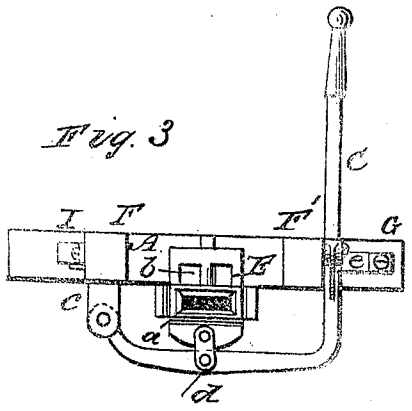


Fig. 3



Witnesses
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WILLIAM B. PARSONS, OF SHORT TRACT, NEW YORK.

Letters Patent No. 102,149, *dated April* 19, 1870.

IMPROVEMENT IN CAR-COUPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM B. PARSONS, of Short Tract, in the county of Alleghany and State of New York, have invented certain Improvements in Car-Couplers, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to car-couplers, and consists in the novel construction and arrangement of certain mechanical devices for automatically coupling cars, as hereinafter described.

In the drawings—

Figure 1 is a side elevation of the ends of two adjoining cars with my devices attached, and

Figure 2 and 3 are end views of the same cars with the devices attached.

In constructing my car-coupling, I make and attach, in any suitable manner, to the end of a car A or B, a draw-head, D, provided with an oblong rectangular bell-shaped or flaring mouth, *a*, and arranged so as to extend a short distance in advance of the end of the car, as shown in figs. 1 and 2.

This draw-head D is made with a vertical slot, extending through it a short distance behind the face of its mouth, and so as to be on a line, or nearly so, with the end of the car.

In this slot is placed a gate, E, shaped as shown in figs. 2 and 3, and arranged to slide vertically. It is rectangular on all sides except the under one, which is slightly curved, and is made with a rectangular opening in the center, of the same width, or nearly so, as that of the mouth of the draw-head, and high enough for the purpose for which it is designed, as hereinafter explained.

From the center of its upper side a stout bolt or pin, *b*, projects downward, about half way across the opening, as shows in said figs. 2 and 3, for the purpose of locking the coupling-link.

This gate E is connected to a bent lever, C, by means of a link, *d*, and is hinged at one end to a rigid pendant, *c*, connected to a head or projection, F, and has its opposite loose end arranged to swing in a guard and guide, *e*, attached to the end of the car and adjoining another head or projection, F', so that, as its loose end is moved by a handle, J, it will cause the gate E to move vertically, as shown in figs. 2 and 3.

The projecting heads F and F' are arranged relatively on the ends of a car, as shown in the figs. 2 and 3.

On the outer side of the head F' is pivoted a latch or catch, G, having its inner end provided with a lip, *f*, and so arranged that, when the lever C is turned up against the side of the head F', the catch G, in falling or turning toward the car, because of its end on that side being the heaviest, will lock the lever in an upright position by means of the lip *f*, as shown in figs. 1 and 3.

Besides the lip *f*, on the front or heaviest part of the latch, it has a curved arm, *g*, extending from its rear side, as shown in fig. 1, the object of which will be hereinafter explained.

On the outer side of the head E is pivoted a stop, I, so as to turn easily on its point of attachment, and to rest on a pin inserted in the side of the head for that purpose.

This stop I has a flat face, which is flush with the end of the head E, as shown in all the figures.

The end of each car is provided with these devices constructed and arranged in the manner above described, so that when the ends of two cars are brought toward each other the devices on each occupy the relative position, shown in fig. 1.

A coupling-link, H, made with tapering flat ends, as shown in fig. 1, is then inserted in the draw-head of one of the cars, and the lever is released by raising the latch G, when it drops down, and in dropping down draws the gate E with it, which, in turn, carries down the pin *b* through the loop of the link, and then, as the cars close up, the stop I, on the car to which the link has been fastened, strikes against the curved arm *g* of the latch G pivoted to the opposite car, presses it down and releases the lever, which then swings back and carries down the gate E, and with it the pin attached to it, which passes through the link H, which in the meantime has entered the opposite draw-head, and thus coupled the cars together. To release them it is only necessary to raise one or the other of the levers, when it can be held up by its latch, as before.

If it is not desired to have the cars couple, it is only necessary to turn up the face of the stop, when the curved arm of the latch, not meeting with any obstruction, will not release the latch, and, consequently, not the lever with its attachments, and the bumper-heads of the cars will come together.

Having thus described my invention,

What I claim is—

1. A car-coupler consisting of the hinged bent lever C, gate E provided with the pin *b*, latch G, and stop I, when constructed and arranged to operate substantially as herein described, in connection with a link and draw-heads, as set forth.

2. The combination of the lever C, link *d*, and gate E having pin *b*, with a coupling-link, H, when constructed and arranged to operate substantially as herein described, and for the purpose set forth.

3. The combination of the stop I, latch G and lever C, when constructed and arranged as herein described, for operating the locking-pin of a car-coupler, as set forth.

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Witnesses:

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