

J. D. GARDNER.
Car-Couplings.

No. 149,462.

Patented April 7, 1874.

Fig. 1.

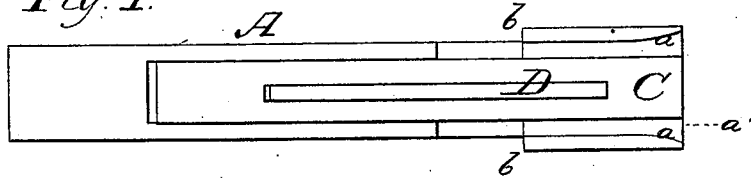


Fig. 2.

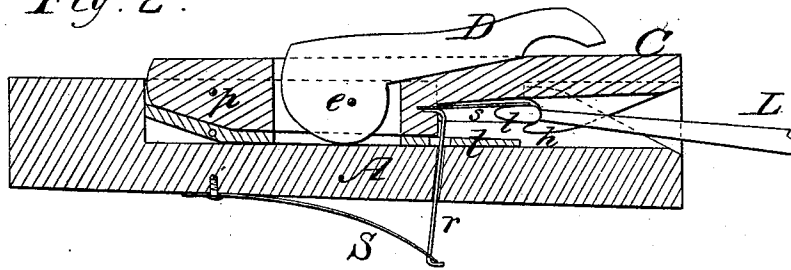


Fig. 3.

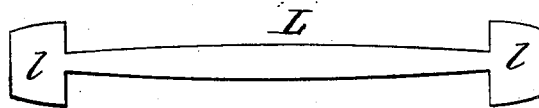


Fig. 4.

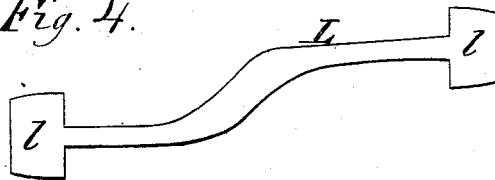
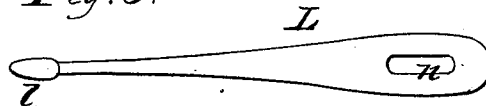


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

JACOB D. GARDNER, OF NASHPORT, OHIO.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **149,462**, dated April 7, 1874; application filed February 28, 1874.

To all whom it may concern:

Be it known that I, JACOB D. GARDNER, of Nashport, in the county of Muskingum and State of Ohio, have invented a new and valuable Improvement in Car-Couplers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a plan view of my car-coupler. Fig. 2 is a sectional view, and Figs. 3, 4, and 5, detail views, of the same. Fig. 6 is a sectional, and Fig. 7 an end, view.

This invention has relation to railroad-car couplers of the self-coupling kind; and it consists in a hooked and recessed draw-bar, a hooking-arm, which is pivoted to the draw-bar and held down in place by a spring, a cam-lever for lifting the hooking-arm, and a rocking tongue, which will guide the head of the coupling-link out of the draw-bar when the hooking-lever is raised, as will be hereinafter explained.

In the annexed drawings, A designates a draw-bar having a flaring mouth, on the inner sides of the cheeks of which are formed inclined shoulders *a a*. The rear upper ends of the shoulders *a a* terminate in backwardly-directed hooks *b b*, in rear of which recesses are made, in which the head of a coupling-link, L, plays. C designates an arm, which is fitted into the upper side of the draw-bar A, and constructed with hooks *h* at the rear termination of its under-beveled end, which hooks are directed backward and have a channel between them for receiving the shank of the coupling-link. The arm C is pivoted to the draw-bar at *p*, so that its front end, which is held down by a spring, S, and a rod, *r*, is allowed vertical movement for coupling and uncoupling. D represents a cam-lever, which is pivoted at *e* in a slot made vertically through the arm C, in rear of the hook *h*. The upper end of this lever will, in

practice, have a chain attached to it, which will pass up through the platform of a car, and be secured to some object where it will be convenient for use, or, in case of freight-cars, the chain will be carried to the top of the car. The lower cam-shaped end of the lever D passes through a slot made through a tongue, *t*, and bears upon the bottom of the recess in draw-bar A, in which the arm C is fitted. By raising the longer arm of lever D, the hooked end of the arm C can be lifted high enough to release the coupling-link L. Beneath the hooked arm C is applied the slotted tongue *t*, above referred to, the front portion of which tongue extends nearly to the hooks *b b*. The rear end of this tongue *t* is turned upward at an obtuse angle, so that when the arm C is raised, its rear beveled end will raise the front portion of the tongue *t* to the position shown by Fig. 6.

The links are constructed with flat heads *l* on each end, as shown by Figs. 3 and 4, or when cars having my couplings on them are to be connected to cars provided with the well-known draw-heads and pins, I use links having a flat coupling-head, *l*, on one end, and an eye, *n*, through the other end, as shown in Fig. 5.

When two cars are moved together, the flat head *l* of the coupling-link will ride up the inclined shoulders *a a*, press up the hooked end of the arm C, and drop into the recess behind the hooks *b b*, as shown in Fig. 2. In this position of the parts the head *l* lies on the tongue *t* and beneath a spring, *s*, which is secured to the arm C back of the hook *h*.

When the lever D is drawn up, the tongue *t*, following it, will lift the head of the link in line with the highest ends of the shoulders *a a*, and allow the head *l* to be drawn out of the mouth of bar A.

The small spring *s* is intended to force the coupling-head free of the hooks *h* when the arm C is raised.

What I claim as new, and desire to secure by Letters Patent, is—

1. A draw-bar, A, hooked at *b*, and shoul-

dered at *a*, in combination with the hooks *h* on the beveled end of pivoted arm C, the lever D, and lifting-tongue *t*, substantially as and for the purposes described.

2. The spring S and its rod *r*, combined with the hooked arm C, tongue *t*, and the hooked draw-bar A, substantially as described.

3. The spring S, combined with the hooked

arm C, tongue *t*, and hooked draw-bar A, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JACOB D. GARDNER.

Witnesses:

D. M. THOMPSON,
THOS. GARDNER.