

J. A. PATTERSON.

CAR-COUPLING.

No. 180,629.

Patented Aug. 1, 1876.

Fig. 1.

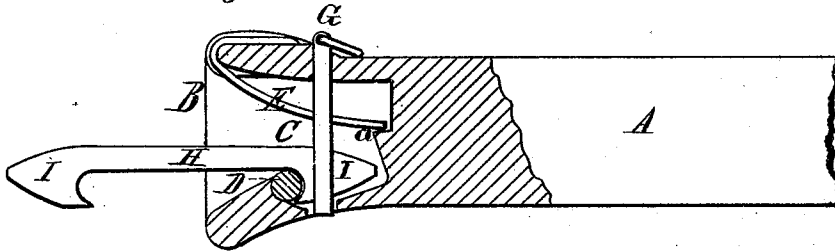


Fig. 2.

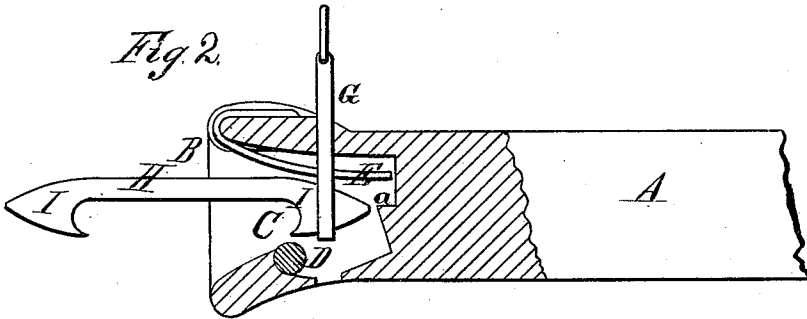


Fig. 3.

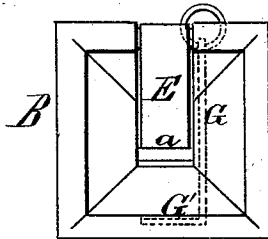
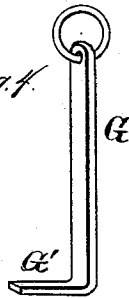


Fig. 4.



WITNESSES

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INVENTOR,

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UNITED STATES PATENT OFFICE.

JOSEPH A. PATTERSON, OF MARSHFIELD, MISSOURI, ASSIGNOR OF ONE-THIRD HIS RIGHT TO JOSEPH A. SMITH, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPINGS.

Specification forming part of Letters Patent No. **180,629**, dated August 1, 1876; application filed April 22, 1876.

To all whom it may concern:

Be it known that I, JOSEPH A. PATTERSON, of Marshfield, in the county of Webster and State of Missouri, have invented a new and valuable Improvement in Car-Coupling; 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 drawings is a representation of a longitudinal vertical section, showing my coupler locked. Fig. 2 is a longitudinal vertical section with the coupler unlocked. Fig. 3 is a front elevation of the same, and Fig. 4 is a detail view of the lifter.

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

In the annexed drawing, A represents the draw-bar, formed with the head B at its front end, within which head is the chamber C, having the usual flaring mouth or throat. Immediately inside of this throat, within the chamber C in the bottom, is a horizontal pin or bolt, D, passed through the draw-head. On top of the draw-head at the front is secured a flat spring, E, which extends backward into the chamber C, it being bent around the upper edge, as shown. The inner end of the spring E rests on a shoulder, *a*, in the back of said chamber, at the same time resting on the coupling-hook, so as to hold the hook in a horizontal position, in order that it may enter the opposite draw-head. Along the side of the spring E, through a hole in the draw-head, passes a metal bar, G, the lower end of which is bent to form a foot, G', said foot, when the bar is down, fitting in a slot in the bottom of the draw-head.

The coupling device consists of a straight bar, H, with a curved hook, I, at each end, which hooks have a slope or incline on both the upper and lower sides, to allow it to pass entirely under the spring into its place. It is also beveled on each side to allow the necessary play sidewise. When this hooked bar

enters the draw-head; it raises the inner end of the spring E until the hook I clears or passes beyond the pin D, when the spring forces the hook down, so that the hook will catch on said pin, and thus couple the cars.

For uncoupling, the bar G is raised by any suitable means from the top or either side of the car, when the foot G' raises the hook and spring until the former passes over the top of the pin D, and can be drawn out of the draw-head.

When it is desired that the cars shall not couple, the bar G is to be drawn up until the foot rises to the top of the pin or bolt D, and then made secure by lever or other means for raising the bar, so that the hook may pass in and out of the draw-head without coupling.

The back and lower part of the chamber C must be the proper distance from the pin D to allow the coupling-hook to slide easily into its place, but not so great that the hook would pass so far as not to drop down over the pin in the opposite draw-head.

In a full-sized coupling the bar G will be formed with a shoulder near the foot, which will prevent the bar from being raised too high, and thus be in the way of the coupling-hook in passing in and out of the draw-head.

This car-coupling is simple and cheap to manufacture, also strong and durable, and there is nothing in it that is liable to get out of order.

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

The combination, with a draw-head, B, having interior chamber C, of the pin D, spring E, bar G, with foot G', and the coupling-bar H, with hook I at each end, said hooks being inclined at top and bottom, and beveled on both sides, all constructed substantially as and for the purpose set forth.

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

JOSEPH ADDISON PATTERSON.

Witnesses:

W. H. DALTON,
J. R. HUDNALL.