

(No Model.)

A. LA RUE.  
CAR COUPLING.

No. 521,376.

Patented June 12, 1894.

Fig. 1.

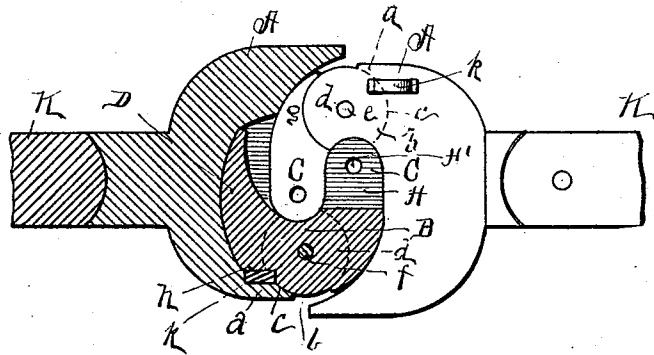


Fig. 2.

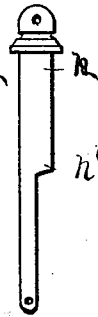


Fig. 3.

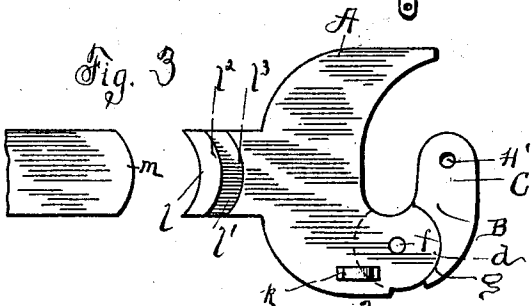
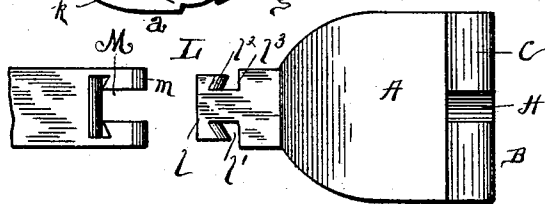


Fig. 4.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 521,376, dated June 12, 1894.

Application filed January 31, 1894. Serial No. 498,563. (No model.)

*To all whom it may concern:*

Be it known that I, ABROM LA RUE, a citizen of the United States, and a resident of Danville, in the county of Montour and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a top plan view partly in section. Fig. 2 is a detail view of the pin and Figs. 3 and 4 are detail views showing the joints.

This invention has relation to certain new and useful improvements in car-couplings; and it consists in the novel construction and combination of parts, all as hereinafter described and pointed out in the appended claim.

Referring to the accompanying drawings, the letters A, A, designate the two draw-heads, which are of the knuckle form, and B, B are the engaging curved jaws, one of which is pivoted in the flange *a* of each of said heads. Said jaws have each a convex bearing portion or barrel *b* bearing in a concave seat *c* in the forward portion of the flange *a*, having the convex-ended end lugs *d*. Said lugs *d* and the barrel *b* are provided with registering perforation *e* to receive the pivot pin *f*. At each end of the barrel *b* the jaw is formed with an accurate concavity *g* whose radius is struck from the center of the pin *f* and which bears upon one of the convex end lugs *d*.

C designates the coupling flange of the jaw, and D its rearward projection or tongue which seats snugly in the throat portion of the draw-head chamber.

On the outside face of the jaw, just back of the barrel *b* is an angular shoulder *h* which, when the jaw is in closed, or coupling position, is engaged by an angular key *k* inserted through a slot in the draw-head. It will be apparent that so long as this key is in place, the jaw will be locked rigidly and solidly in

coupling position, but that when said pin is removed, the jaw may be rocked on its bearing sufficiently to permit the two jaws to clear each other. When the jaw is in open, or uncoupled position, the key is supported in raised position by its shoulder *h*'.

The jaws are recessed at H to receive the link of an ordinary link and pin coupling, pin apertures H' being provided.

The action of coupling is entirely automatic, and by suitable connections with the keys, the latter may be raised, and uncoupling effected without going between the cars.

In order to enable the cars to couple on a curve of any radius, the draw-heads are hinged or pivoted to the draw bars K K in such a manner as to permit them to swing freely in a horizontal plane. The joint may be made with a pin as shown at the right of Fig. 1, or as shown at the left of said figure wherein the draw-head is formed with a dove-tailed portion L, having the rear concave bearing face *l*, and the slot *l'* having a convex rear wall *l*<sup>2</sup>, and a concave forward wall *l*<sup>3</sup>.

The draw-bar is formed with the convex bearing face *m*, and with a seat M shaped to form a bearing for the portion L. By means of this connection the necessary horizontal movement is provided for, and the parts are securely jointed against displacement without the use of a pin.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with a draw-head having a pivoted jaw, means for locking said jaw, and the rear portion L of dovetailed form, of a draw-bar having a seat to receive said portion L, said portion L and its seat being arranged to permit a lateral swing of the draw-head with relation to the bar, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ABROM LA RUE.

Witnesses:

THOS. G. THOMAS,

MONTGOMERY J. BELL.