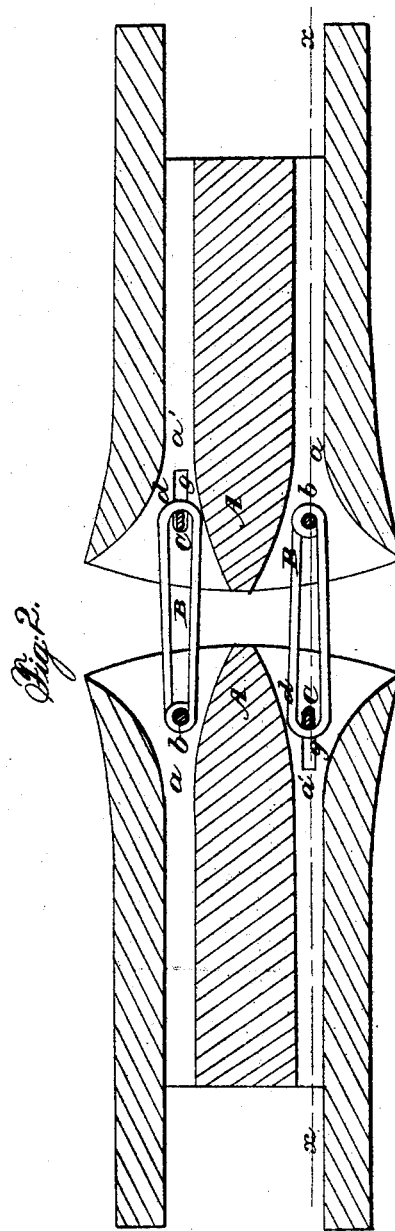
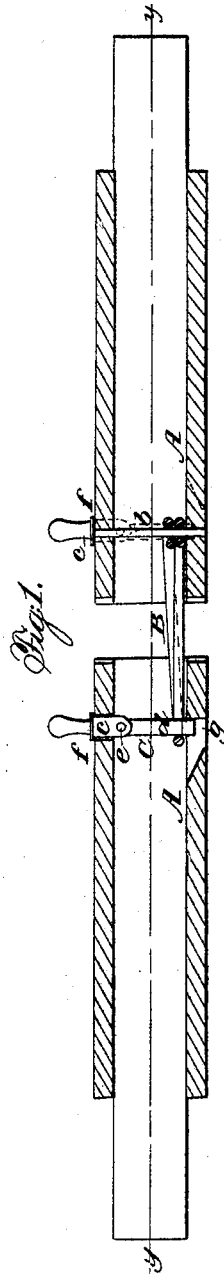


B. F. MARSDEN.

Car Coupling.

No. 45,509.

Patented Dec. 20, 1864.



Witnesses
Henry Horn
Geo. W. Reed

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UNITED STATES PATENT OFFICE.

B. F. MARSDEN, OF GALENA, ILLINOIS.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **45,509**, dated December 20, 1864; antedated December 9, 1864.

To all whom it may concern:

Be it known that I, B. F. MARSDEN, of Galena, in the county of Jo Davies and State of Illinois, have invented a new and Improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable any one skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a horizontal section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in having each draw-head of a car provided with two openings, one of which has a link permanently secured in it, and the other provided with a jointed pin to catch and hold the permanent link of the draw-head of the adjoining car, all being arranged as hereinafter described, whereby two cars are connected by two links, neither of which is detachable from its draw-head, and a self-coupling at the same time obtained, and one which will admit of being very readily uncoupled.

A A represent the adjoining draw-heads of two cars. Each of these draw-heads is provided with two openings, *a a'*, in one of which, *a*, a link, B, is permanently secured by a pin, *b*. In the other opening, *a'*, there is a vertical adjustable pin, C, composed of two parts, *d*, connected by a joint, *e*. The pins C are allowed to move vertically in the draw-heads—that is to say, they may be raised and lowered therein—and the upper parts, *e*, are provided with a shoulder, *f*, and these shoulders rest on the tops of the draw-heads and support the pins C, the lower ends of the parts *d* being in slots *g* in the bottoms of the draw-heads, the back part of said slots being beveled or

inclined to admit of the parts *d* swinging backward. The front ends of the slots *g* are vertical and serve as stops for the parts *d* and prevent them being drawn forward or outward toward the mouths of the draw-heads, as will be fully understood by referring to Fig. 1.

The pins C, in consequence of being formed of two parts connected by a joint with the lower ends in the slots *g*, admit of the links B connecting themselves with said pins as the former enter the openings *a'*, and it will be seen by referring to Fig. 2 that the link B of one draw-head is opposite the opening *a'* of the adjoining draw-head. By this arrangement the two draw-heads are connected by two links instead of but one, as hitherto, and a more secure attachment obtained with permanent links or those which do not require to be detached from the draw-heads, and the draw-heads are rendered self-coupling, in consequence of the links B forcing back the lower parts, *d*, of the pins C, and said parts *d* dropping into or through the links when the outer ends of the same pass them.

In order to detach the draw heads, all that is required is simply to raise the pins C, either directly by hand or through the medium of any suitable appliance. The links not being detachable in either draw-head, the trouble and embarrassment attending the losing of a link is obviated.

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

The two openings *a a'* in the draw-heads A A, in combination with the two links B B and the removable or rising and falling jointed pins C C, all arranged substantially as and for the purpose herein set forth.

B. F. MARSDEN.

Witnesses:

FRANCIS MASSING,
C. W. PARKER.