

(No Model.)

J. McCOY.
CAR COUPLING.

No. 321,127.

Patented June 30, 1885.

Fig. 2.

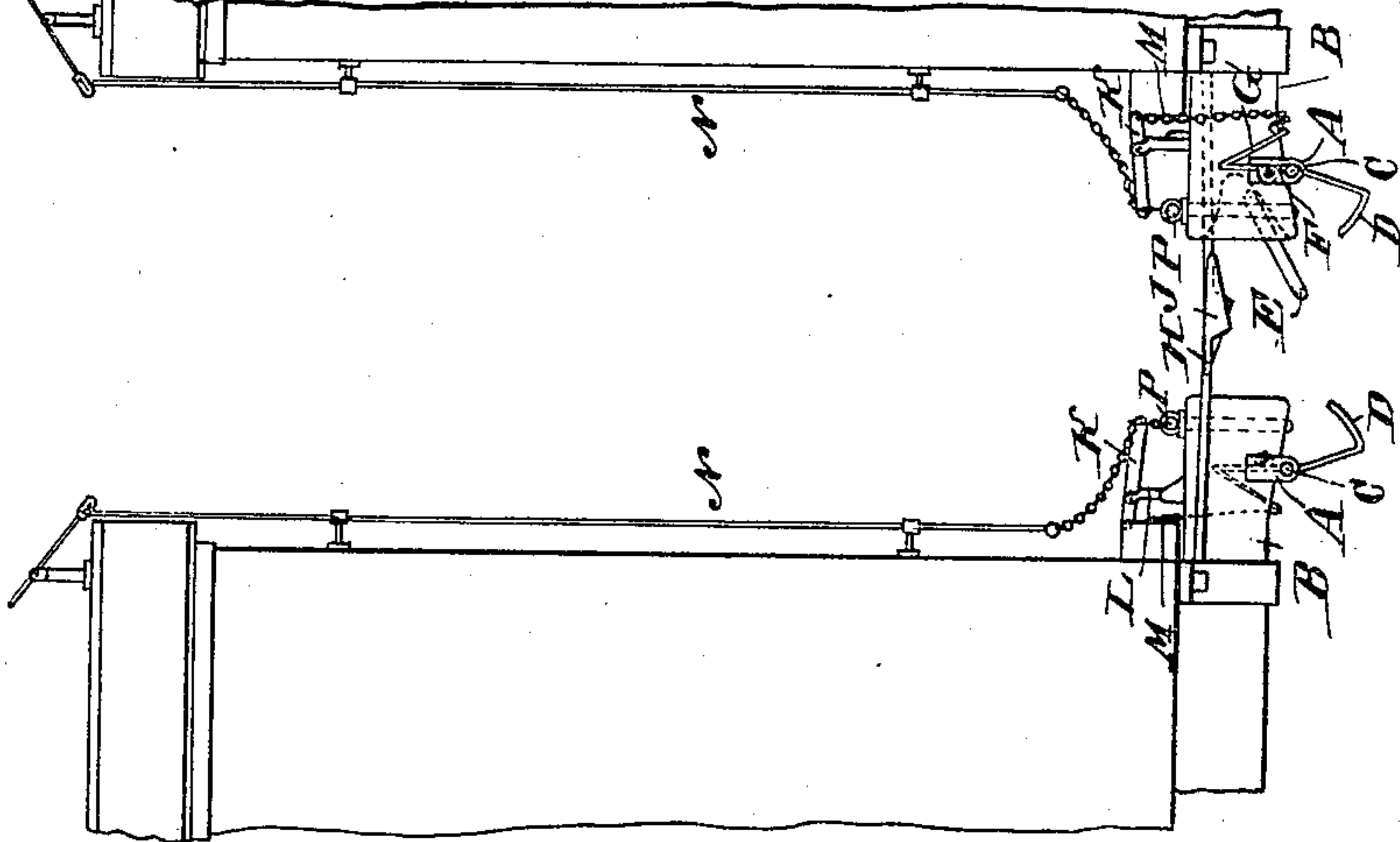


Fig. 1.

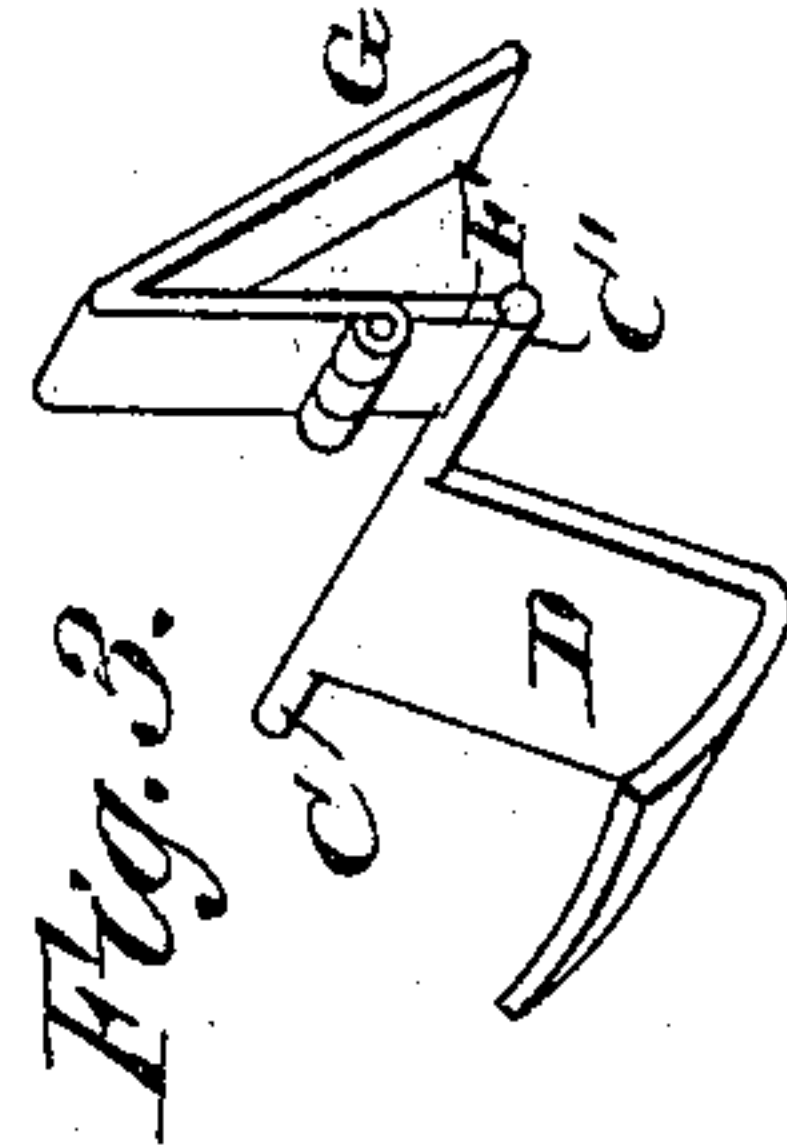
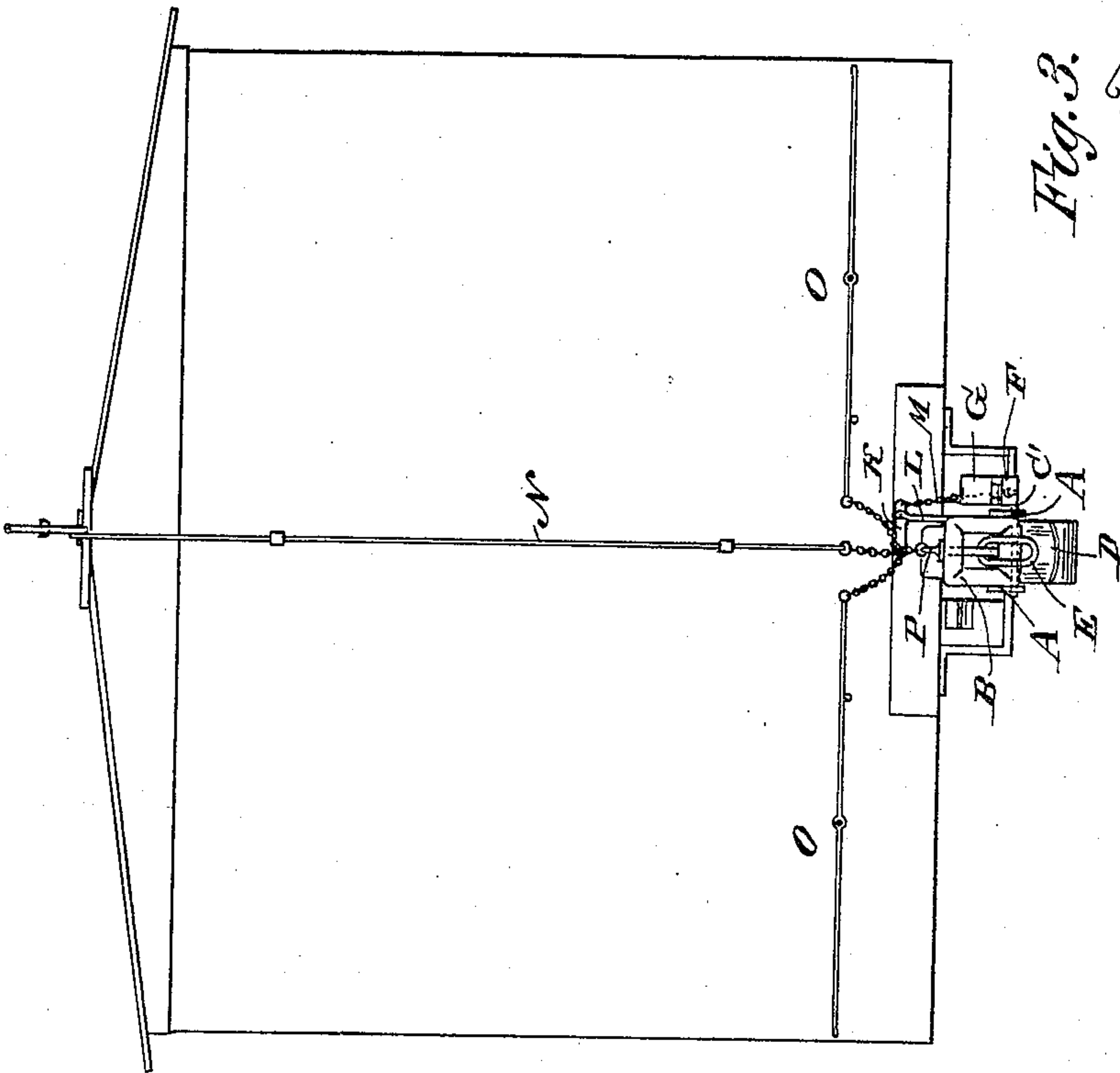


Fig. 3.

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JOSEPH MCCOY, OF INDEPENDENCE, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 321,127, dated June 30, 1885.

Application filed December 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MCCOY, of Independence, in the county of Jackson and State of Missouri, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved car-coupling, which raises the link automatically and couples automatically.

The invention consists in the combination with a draw-head of a V-shaped or angular link-lifter pivoted on the bottom and connected with a swinging piece arranged at one side of the draw-head and connected with the link. On that side of the draw-head opposite the one on which the swinging piece is arranged a horizontal bar is arranged and provided with a beveled head projecting beyond the end of the draw-head.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an end elevation of a car provided with my improved car-coupling. Fig. 2 shows the side of the end parts of two cars provided with my improved coupler. Fig. 3 is a perspective view of the pivoted tripping-lever.

A lug, A, is secured on each side of the draw-head B and projects below the bottom edge of the same, and in said lugs a shaft, C, is mounted transversely under the draw-head. A V-shaped or angular plate or link-lifter, D, has one end secured to the shaft C in such a manner that when the said plate is swung up toward the end of the draw-head the end arm or part of the plate can pass in front of the end of the draw-head and push up or lift the link E more or less. One end, C', of the shaft projects beyond the side of the draw-head, and is provided with a lug, F, on which an inverted-V-shaped piece, G, is hinged, the free edge of the piece G being toward the rear. The said piece G is hinged in such a manner that it can swing on the lug F in the direction toward the front or outer end of the draw-head, but not toward the rear. On the side of the draw-head opposite the one on which the

part G is arranged, a flat bar, H, is arranged, which extends parallel with the top of the draw-head along the side of the same, and projects some distance from the free end of the draw-head, the projecting end being provided with a head, J, beveled gently from the outer toward its inner end. The head J of one draw-head must be so arranged that it can act on the upper end of the hinged inverted-V-shaped piece of the other draw-head. A lever, K, is pivoted on a short standard, L, on the top of the draw-head, and has its front end connected with the pin P, and the rear end connected by a chain, M, with the rear free end of the V-shaped piece G. The pin is connected by chains with a sliding rod, N, extending to the roof of the car and with two pivoted levers O extending to the sides of the car.

The operation is as follows: When the cars come together the head J of the bar H of one draw-head strikes the upper end of the piece G of the opposite draw-head and swings it toward the rear, whereby the link-lifter D is swung up and lifts the link, at the same time the chain M, connected with the rear end of the piece G, pulls on the lever K, whereby the pin is raised. As soon as the inner end of the bevel of the head J has passed the upper end of the piece G, the said piece is swung to the front, the link-lifter swings down, and the pin P drops through the link and the cars are coupled. When the cars are uncoupled the inner ends of the heads J strike the upper ends of the pieces G and swing them toward the front or outer ends of the draw-heads sufficiently to pass the said pieces. The pieces G are then swung back by the weights of their rear shanks.

In place of pivoting the shaft C in the lugs on the draw-head, it may be pivoted on buffer-blocks at the sides of the draw-head, so as to permit the draw-head to recoil without affecting the link-lifter.

Instead of making the link-lifter of a plate, as shown, it may be formed of a rod bent to a suitable shape. The horizontal bar may be arranged under the car if there is not room for it to act without striking the cars when they come together.

The pin may be provided with a lug or pro-

jection to hold it raised until the cars come together, when the concussion throws the pin off and causes it to drop.

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

1. The combination, with a draw-head, of a swinging V-shaped or other angular link-lifter arranged under the draw-head, and of a tripping-lever arranged at the side of the draw-head and connected with the link-lifter, substantially as herein shown and described.

2. The combination, with a draw-head, of the shaft C, the link-lifter D, secured on the same, the lug F, and the V-shaped piece G, hinged to the said lug, substantially as herein shown and described.

3. The combination, with a draw-head, of a link-lifter hinged or pivoted below the bottom of the same, and a piece arranged at the side of the draw-head and connected by means of chain and lever with the coupling-pin, substantially as herein shown and described.

4. The combination, with a draw-head, of a link-lifter hinged below the bottom of the draw-head and connected with a piece arranged to swing on the side of the draw-head, and of a horizontal bar arranged on the other side of the draw-head, and having a beveled head projecting beyond the end of the draw-head, substantially as herein shown and described.

5. The combination, with the draw-head B, of the shaft C, the link-lifter D, the hinged piece G, the lever K, the coupling-pin P, the chain M, connecting the lever K with the piece G, and of the bar H, arranged at the side of the draw-head, and provided with a beveled head projecting beyond the end of the draw-head, substantially as herein shown and described.

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Witnesses:

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