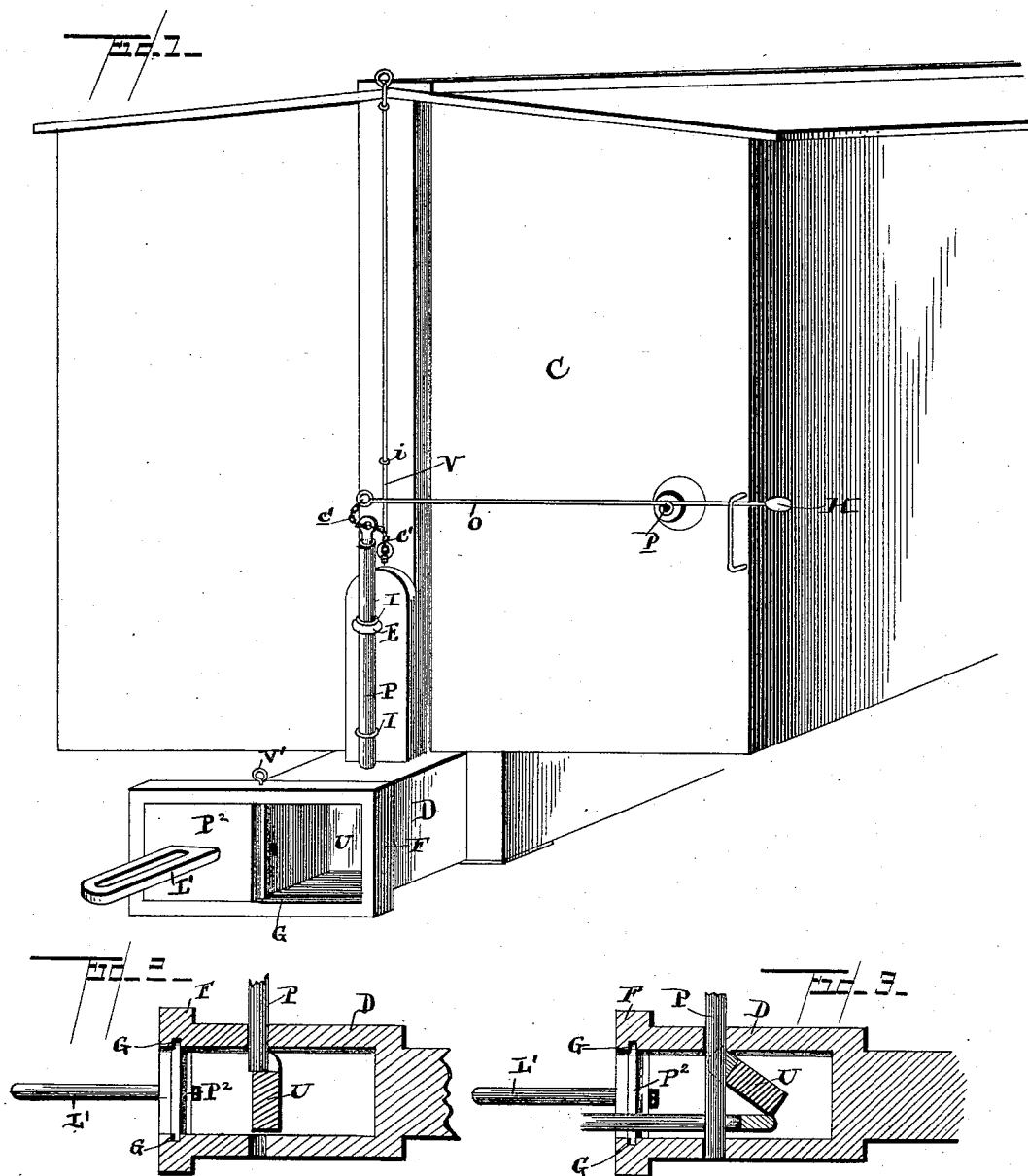


(No Model.)

H. B. LEDEL.
CAR COUPLING.

No. 465,377.

Patented Dec. 15, 1891.



Witnesses

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HANS B. LEDEL, OF MINNEOTA, MINNESOTA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 465,377, dated December 15, 1891.

Application filed March 27, 1891. Serial No. 386,599. (No model.)

To all whom it may concern:

Be it known that I, HANS B. LEDEL, a citizen of the United States, residing at Minneota, in the county of Lyon and State of Minnesota, have invented a new and useful Car-Coupling, of which the following is a specification.

This invention relates to car-couplings, more particularly of the pin-and-link type; and the object of the same is to provide an improved car-coupling of that character.

To this end the invention consists of the details of construction more particularly hereinafter described and claimed, and as illustrated on the two sheets of drawings, wherein—

Figure 1 is a perspective view of the end of the car, showing my form of a pin-lifter and draw-head. Fig. 2 is a central longitudinal section of the draw-head and pin with the latter raised. Fig. 3 is a similar section showing the pin as dropped through the link.

Referring to the said drawings, the letter C designates a car, and D is the draw-head, supported by and beneath the car in any suitable or well-known manner.

In the construction illustrated P is a pin moving vertically through the draw-head and through eyes I, carried by the car, between which it has a stationary collar or enlargement E to prevent its dislocation.

O is an operating-lever pivoted at *p* to the end of the car and having a handle H standing at the side of the car.

V is a vertical rod passing through eyes *i* in the end of the car and having a handle at the top of the car, and C' are chains connecting the inner and lower ends, respectively, of the lever and rod with the upper end of the pin.

Although I have not shown it, it will be understood that there can be another lever O leading to the other side of the car and of a construction similar to the one shown. It will thus be seen that the operator is able to raise the pin P from the top of the car or when standing at either side of the track, and said pin again seeks its operative position by gravity.

Within the draw-head is located a prac-

tically U-shaped plate U, which is pivoted at its upper ends in the sides of the draw-head, near its top, and normally hangs in the position seen in Fig. 2. Thus when the pin P is raised the plate U swings beneath it and the pin is held in elevated position, although the lever O or rod V may return to its normal position and the chain C' may be slack. When a link approaches, its free end strikes the plate U and drives the same to the rear, swinging it about its pivots, and thus the pin P is allowed to drop through the link, as seen in Fig. 3. The device thus becomes an automatic coupler. When the pin is raised and the link is again withdrawn, the plate U follows the link and swings beneath the pin, so as to hold it in elevated position ready for future use.

The outer end of the draw-head carries a horizontal frame-work F, having guides or grooves G therein. Within this frame-work is a plate P², which is of half the length of the frame-work, and this plate has tongues moving loosely in said grooves.

V' is a vertical pin passing through the frame-work at such point as to hold the plate P² at either end thereof desired. Thus when the plate is moved to the left, as seen in this figure, the draw-head D is exposed, as shown in Fig. 1; but when the pin V' is raised, the plate moved to the right, and the pin reinserted the mouth of this draw-head is closed by the plate. Rigidly secured to and projecting from said plate is a link L', approximately of the construction shown, and when the plate is moved in alignment with the draw-head (which, it will be understood, is beneath the center of the car) this link will be in proper position to couple with the draw-head of another car. By this construction the draw-head is changeable from a male to a female construction, and although considerable change may be made in the details of construction without departing from the spirit of my invention I consider the general idea highly advantageous for reasons which will be obvious.

Although I prefer the form of pin-support and pin-lifter above described, obviously other forms might be adopted which would

operate successfully with the draw-head, and I therefore reserve the right to use them, if preferred.

What is claimed as new is—

5 1. The herein-described draw-head for car-couplings, the same consisting of a draw-head having an open mouth, a frame-work projecting laterally therefrom and having grooves
10 or ways, a plate moving in the grooves thereof, a rigid link projecting from the plate, and means for holding the latter at either end of the frame-work, substantially as and for the purpose hereinbefore set forth.

15 2. The herein-described draw-head for car-couplings, the same consisting of a draw-head having an open mouth, a pin-support within said draw-head, a grooved frame-work projecting laterally from the mouth of the draw-head, a plate half the length of said frame-
20 work and moving in the grooves thereof, a link projecting from the center of said plate,

and means for holding the plate removable at either end of the frame-work, substantially as and for the purpose hereinbefore set forth.

3. The herein-described draw-head for car- 25 couplings, the same consisting of a draw-head having an open mouth, a frame-work projecting laterally therefrom and having grooves or ways, a plate moving in the grooves thereof, a rigid link projecting from the plate, and 30 a vertical pin removably inserted through the center of the frame-work for holding the plate at either end thereof, substantially as and for the purpose hereinbefore set forth.

In testimony that I claim the foregoing as 35 my own I have hereto affixed my signature in presence of two witnesses.

HANS B. LEDEL

Witnesses:

O. E. MAXSON,
H. J. AUSE.