(No Model.)

C. F. JOHNSON.

CAR COUPLING.

No. 457,890. Patented Aug. 18, 1891.

Fig. 1.

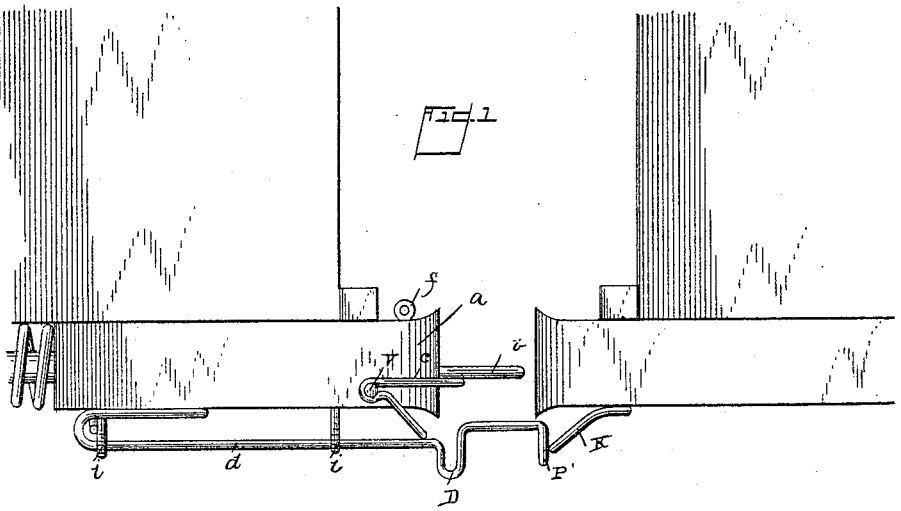


Fig. 2.

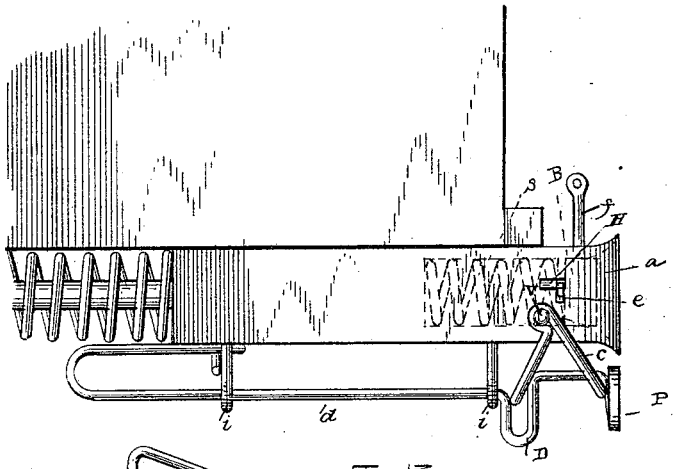
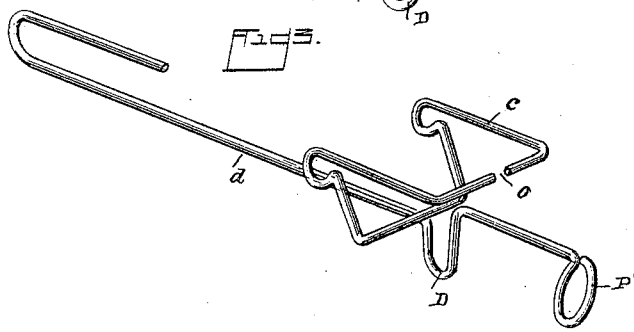


Fig. 3.



Witnesses

Chas. A. Ford.

N. L. Collamer.

Inventor

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

CYRUS FRANKLIN JOHNSON, OF LAFAYETTE, ASSIGNOR OF ONE-THIRD TO LEVY L. JOHNSON, JR., OF MAYFIELD, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 457,890, dated August 18, 1891.

Application filed May 13, 1891. Serial No. 392,599. (No model.)

To all whom it may concern:

Be it known that I, CYRUS FRANKLIN JOHNSON, a citizen of the United States, residing at Lafayette, in the county of Christian and State of Kentucky, have invented a new and useful Car-Coupling, of which the following is a specification.

This invention relates to car-couplings, and more especially to that class thereof known as "link-supports;" and the object of the same is to produce certain improvements in devices of this character.

To this end the invention consists in the details of construction hereinafter more fully described and claimed, and as illustrated on the sheet of drawings, wherein—

Figure 1 is a side elevation of this improved car-coupling, showing the link in one draw-head as being guided into another. Fig. 2 is a similar elevation of a slightly-different form of draw-head with the link-lifter depressed and the pin ready to drop. Fig. 3 is a detail perspective of the link-lifting frame and the slide-rod.

Referring to the said drawings, the letters *a* designate the draw-heads, beneath each of which in eyes *i* moves the slide-rod *d*, having a downward bend D in its body near its front end, and provided with an enlarged plate P at said front end, this plate standing about flush with the mouth of the draw-head when the slide-rod is moved to the rear.

The letter *c* designates the link-lifter proper, which comprises a wire frame-work approximately inverted-V-shaped in side elevation and pivotally connected at its angles by pins or screws V to the sides of the draw-head. The rear member of this frame takes into the bend D of the slide-rod, and the front member has an opening O at a proper point to pass over the said slide-rod forward of its bend. By this construction when the slide-rod is moved forward, as seen in Fig. 1, the front portion of the frame *c* is caused to rise past the mouth of the draw-head until the rear portion rests upon the straight part of the slide-rod D in rear of its bend, and when the rod is moved to the rear the frame *c* swings downwardly out of the way, as seen in Fig. 2.

The letter *f* designates the pin, and *b* the link, which are of the usual construction and operation.

B is a block sliding within the draw-head and pressed normally forward by a spring S, and *e* is a lateral arm on this block, which projects through a slot H in the side of the draw-head, whereby the block can be moved to the rear by hand or otherwise when desired. When the link *b* is driven into the draw-head, it drives the block B to the rear against the tension of the spring S and permits the pin *f* to fall, the tension of the spring holding the end of the link closely against the pin and preventing the latter from becoming accidentally displaced.

In Fig. 1 I have shown one of the draw-heads as above described (omitting the spring-actuated block) when used in connection with an ordinary draw-head, and in this case the latter is provided with a depending bracket K, which takes the place of the plate P. The latter may even be omitted from the slide-rod and its front end turned downwardly, as seen at P′. This view illustrates the manner in which the ordinary draw-heads now in use may be made to work in connection with my improvement simply by adding the bracket K thereto.

Obviously the pin-supporting devices might be omitted or any other equivalent devices for this purpose employed without departing from the spirit of my invention. The slide-rod when drawn forward causes the link-lifting frame to be elevated, thereby raising the link to the proper position to guide it into the mouth of the empty draw-head, and as the two plates P come in contact just at the moment the free end of the link enters the draw-head the slide-rod moves to the rear out of the way and is not crushed between the meeting faces of the draw-heads. I prefer to use the pin-supporting devices shown or some equivalent devices in connection with the link-lifter in order to render the device automatic in its operation.

This improved car-coupling is very simple in construction and operation, and perhaps its chief merit consists in the fact that it may

be applied to the draw-heads of couplings now in common use.

What is claimed as new is—

1. In a car-coupling, the combination, with the draw-head, eyes depending therefrom, a slide-rod moving in said eyes and having a downward bend in its body, and a depending plate at the front end of said rod, of a link-lifting frame of inverted-V-shaped side elevation and having eyes at its angles, screws pivotally connecting said eyes to the sides of the draw-head, the rear member of said frame engaging said bend and the front member moving over the mouth of the draw-head and having an opening spanning the rod, and a link and pin, substantially as described.

2. In a car-coupling, the combination, with the draw-head, eyes depending therefrom, and a slide-rod moving in said eyes bent downwardly in front of the forward eye and having a vertically-enlarged front end, of a link-lifting frame pivotally connected to the draw-head and comprising a rear member engaging said bend and a front member adapted to move over the mouth of the draw-head, and a link and pin, substantially as described.

3. In a car-coupling, the combination, with the draw-head, a pin-supporting block moving longitudinally therein, a pin passing vertically through said draw-head, a link, eyes depending from the draw-head, and a slide-rod moving in said eyes bent downwardly in front of the forward eye and having a vertically-enlarged front end, of a link-lifting frame pivotally connected to the draw-head and comprising a rear member engaging said bend and a front member adapted to move over the mouth of the draw-head, substantially as and for the purpose hereinbefore set forth.

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

CYRUS FRANKLIN JOHNSON.

Witnesses:
ED R. BOGARD,
W. J. CAROTHERS.