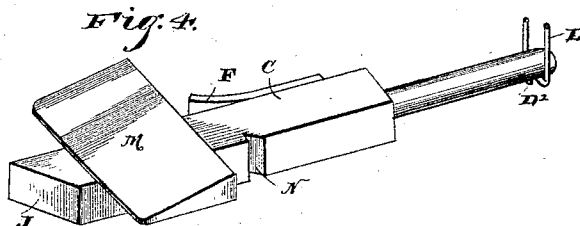
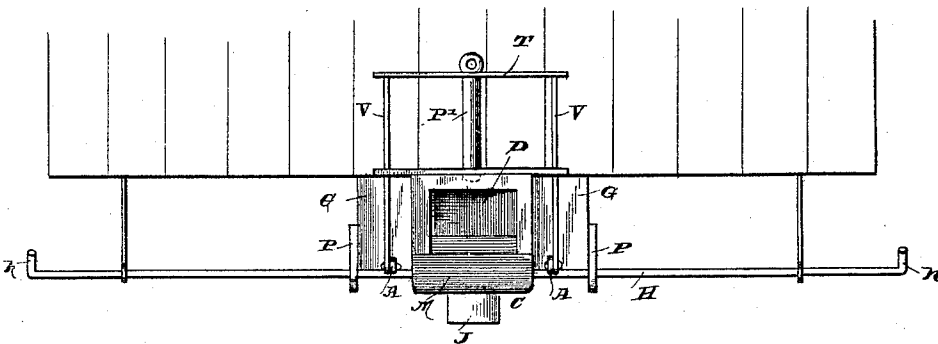
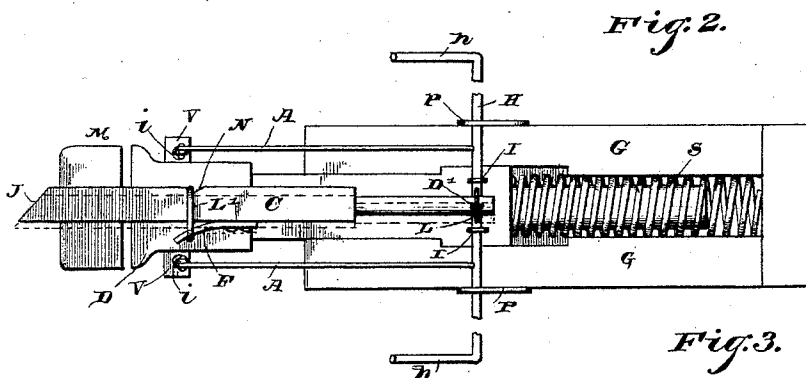
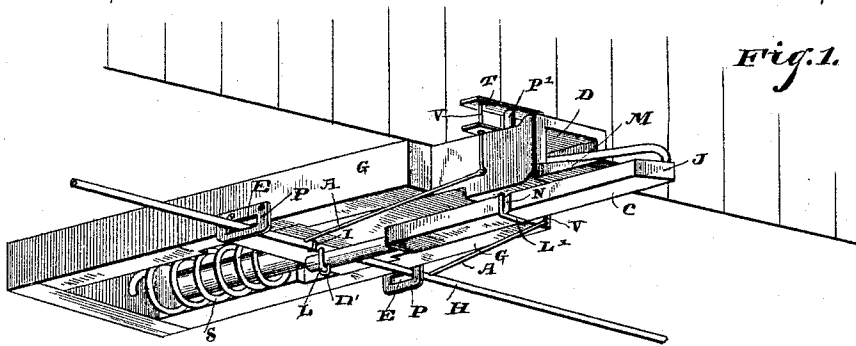


(No Model.)

A. J. COVER.
CAR COUPLING.

No. 476,919.

Patented June 14, 1892.



Witnesses

B. S. Ober

Inventør

Adam J. Cover,

By *his* Attorneys,

W. J. Hollamer.

Chas Snow Geo

UNITED STATES PATENT OFFICE.

ADAM J. COVER, OF BROKEN SWORD, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 476,919, dated June 14, 1892.

Application filed December 22, 1891. Serial No. 415,917. (No model.)

To all whom it may concern:

Be it known that I, ADAM J. COVER, a citizen of the United States, residing at Broken Sword, in the county of Crawford and State of Ohio, 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 "pin-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 specific details of construction hereinafter more fully described and claimed, and as illustrated on the sheet of drawings, wherein—

Figure 1 is a perspective view of a car having this improved car-coupling with a link coupled therein. Fig. 2 is a bottom plan view showing the pin as raised and the catch holding it so, but also showing in dotted lines the catch in position to permit the pin to fall. Fig. 3 is a front elevation with the pin raised. Fig. 4 is a perspective detail of the catch.

Referring to the said drawings, the letter D designates a draw-head moving longitudinally in guides G beneath the car-body and preferably held in place by a strong buffer-spring S, as usual, and in eyes I in the lower side of the draw-bar is pivoted a transverse horizontal shaft H, passing outwardly through elongated slots E in plates P, depending from the guides and having handles *h* at their outer ends. The ordinary coupling-pin P' is used in this case, and its upper end is connected to a transverse plate T across the top of the draw-head, vertical rods V being connected with the ends of this plate, passing downwardly through eyes *i* in the sides of the draw-head and pivotally connected at their lower ends to the front ends of arms A, extending forward from the horizontal shaft H. By this means when the handles *h* are turned the arms A are correspondingly moved and their front ends cause the plate T to rise and fall, and hence the coupling-pin P' to be moved vertically through the pin-opening in the draw-head. At the same time when the draw-head is moved longitudinally in the guides the shaft H moves with it in the slots

E of the plates P and all the other parts are correspondingly moved.

The letter C designates a catch whose rear end has a depending staple D' pivoted in a loop L in the lower side of the shaft H and whose body passes through another loop L' in the lower side of the draw-head, being provided with a notch N at one side and a flat spring F at the other bearing the notch normally into engagement with this loop. This notch is spaced from the rear end of the catch that when the pin is raised and the lower side of the shaft H is rocked forward the notch engages the loop L' to prevent the return movement of the shaft and the consequent descent of the coupling-pin. The front end of the catch has at its upper side a beveled plate M for guiding the approaching link into the mouth of the draw-head, and beneath this plate is a transversely-inclined projection J, its inclination standing at such an angle that when the projection is struck by another on the catch of the approaching draw-head the front end of the catch will be moved laterally to compress the spring F and permit the notch N to disengage the loop L', the rearward force simultaneously imparted to the catch also then assisting to turn the horizontal shaft in a direction to cause the descent of the link.

I do not limit myself to the exact details of construction above described, as experiment may teach me that considerable change therein is desirable.

What is claimed as new is—

1. In a car-coupling, the combination, with the draw-head having a vertical pin-opening, a pin moving therein and having a plate across its upper end, and vertical rods depending from said plate and passing through eyes in the sides of the draw-head, the latter moving longitudinally in guides beneath the car, of plates on said guides provided with elongated slots, eyes in the lower side of the draw-bar, a shaft journaled in said eyes, extending through said slots and having handles at the sides of the car, arms extending forward from said shaft and pivoted to the vertical rods, a loop depending from the shaft, a catch pivoted thereto, extending forward and having at its front end a link-guiding plate and beneath

the same a transversely-inclined projection, a loop depending from the draw-head and embracing said front end, the latter having a notch at one side, and a spring opposite said notch throwing the latter normally into engagement with the loop, as and for the purpose set forth.

2. In a car-coupling, the combination, with the draw-head having a vertical pin-opening, a pin moving therein and having a plate across its upper end, and vertical rods depending from said plate and passing through eyes on the draw-head, the latter moving between guides beneath the car, of plates on said guides provided with elongated slots, eyes in the lower side of the draw-bar, a shaft journaled in said eyes, extending through the slots and having handles at the sides of the car, and arms extending forward from said shaft and pivoted to the vertical rods, as and for the purpose set forth.

3. In a car-coupling, the combination, with a draw-head having a vertical pin-opening and a pin moving therein, of guides between which the draw-head moves, longitudinally-slotted plates on said guides, an oscillating shaft connected with the draw-bar, passing through said slots and having handles at its ends, and an arm extending forward from said shaft and pivotally connected with said pin, as set forth.

4. In a car-coupling, the combination, with the draw-head having a vertical pin-opening, a pin therein, eyes in the draw-bar, an oscillating shaft journaled therein, and connections between said shaft and pin, of a loop depending from the shaft, a catch pivoted thereto, extending forward, and having at its front end a rearwardly-beveled link-guiding plate and beneath the same a transversely-inclined projection, a loop depending from the draw-head and embracing said front end, the latter having a notch at one side, and a spring opposite said notch throwing the latter normally into engagement with the loop, as set forth.

5. In a car-coupling, the combination, with the draw-head having a vertical pin-opening, a pin therein, eyes in the draw-bar, an oscillating shaft journaled therein, and connections between said shaft and pin, of a loop depending from the shaft, a catch pivoted thereto, extending forward, and having at its front end a transversely-inclined projection, a loop depending from the draw-head and embracing said front end, the latter having a

notch at one side, and a spring opposite said notch throwing the latter normally into engagement with the loop, as set forth.

6. In a car-coupling, the combination, with the draw-head having a vertical pin-opening, a pin therein, eyes in the draw-bar, an oscillating shaft journaled therein, and connections between said shaft and pin, of a loop depending from the shaft, a catch pivoted thereto, extending forward, and having a notch in one side, a loop under the draw-head embracing said front end, a spring secured to said end within the loop and bearing the notch normally into engagement with said loop, and means for breaking said engagement, as set forth.

7. In a car-coupling, the combination, with the draw-head having a vertical pin-opening, a pin therein, eyes in the draw-bar, an oscillating shaft journaled therein and having handles at its ends, and arms extending from said shaft and pivotally connected with the pin, of means, substantially as described, for holding the pin raised, but permitting its descent when the cars come together, as set forth.

8. In a car-coupling, the combination, with the draw-head having a vertical pin-opening, a pin therein, and pin-raising devices connected therewith, of a loop depending from said head, a catch standing within said loop and having a notch at one side, a spring at its other side bearing the notch into engagement with the loop, means for disengaging it therefrom, and connections between said catch and the pin-raising devices, as and for the purpose set forth.

9. In a car-coupling, the combination, with the draw-head having a pin-opening, a pin therein, and pin-operating devices connected therewith, of a loop on said draw-head, a catch movable longitudinally through said loop, having a notch in one side engaging the loop and having at its front end a transversely-inclined projection, a spring at the other side bearing the notch normally into engagement with the loop, and connections between said catch and the pin-operating devices, 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 the presence of two witnesses.

ADAM J. COVER.

Witnesses:

C. R. SHECKLER,
J. M. DITTY.