

(No Model.)

Y. F. BLACK.  
CAR COUPLING.

No. 301,792.

Patented July 8, 1884.

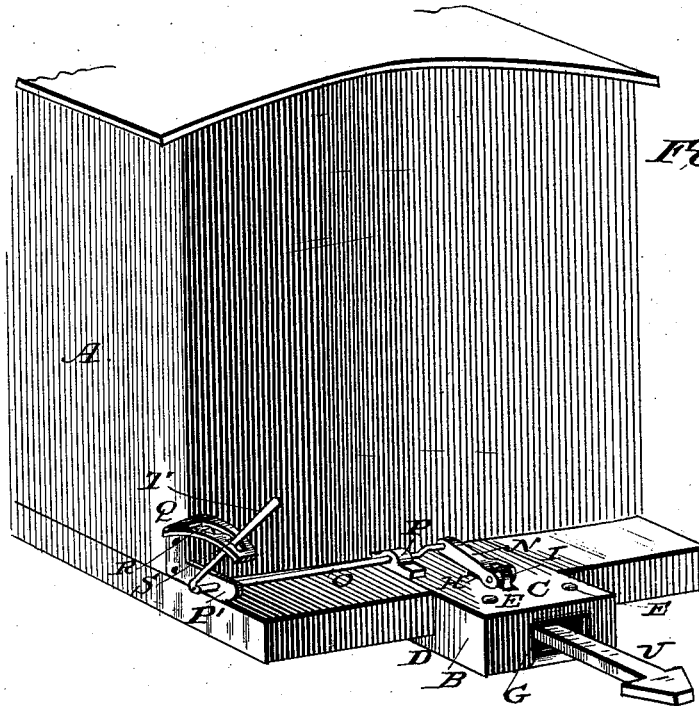


Fig. 1.

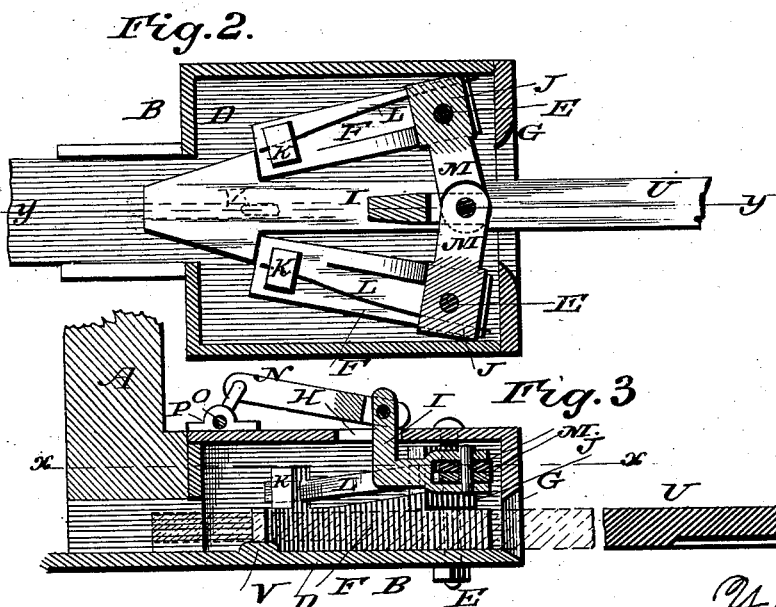


Fig. 2.

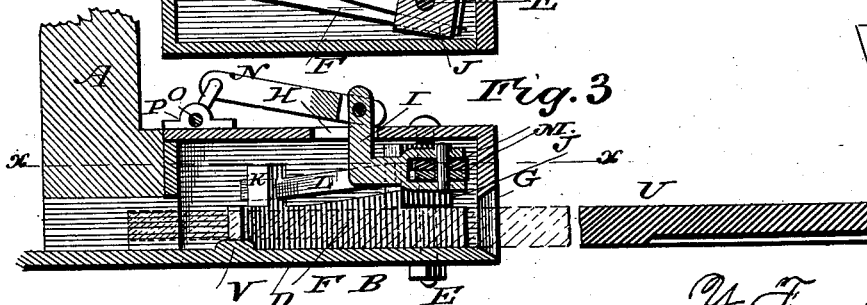


Fig. 3.

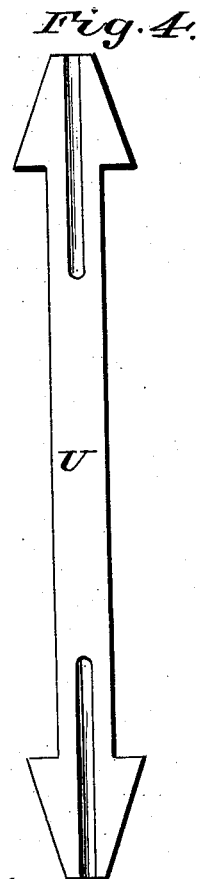


Fig. 4.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

YOUNG FREMONT BLACK, OF MAXVILLE, INDIANA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 301,792, dated July 8, 1884.

Application filed May 9, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, YOUNG FREMONT BLACK, a citizen of the United States, residing at Maxville, in the county of Vigo and State of Indiana, have invented a new and useful Car-Coupling, of which the following is a specification, reference being had to the accompanying drawings.

This invention has relation to car-couplings; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

Figure 1 is a view in perspective of a car-coupling embodying my improvements. Fig. 2 is a horizontal section on the line *xx* in Fig. 1, and Fig. 3 is a vertical longitudinal section on the line *yy* in Fig. 1. Fig. 4 is a bottom view of the coupling-bar.

Referring by letter to the accompanying drawings, A designates the car-body, and B the draw-head of the car-coupling, which is secured to the timbers of the car in any suitable manner. This draw-head is rectangular in shape, and is made in two sections—an upper section, C, and a lower section, D, bolted together near their forward ends by bolts E E, which form the fulcrums for the pivoted coupling-levers F F, and also connected together at their rear ends in any suitable manner. The upper section, C, is provided with the mouth G for the draw-head, and also with a slot, H, in its upper wall, through which the upper end of the bifurcated angle-arm I extends. The coupling-levers F F are provided with shoulders on their upper faces near their forward ends, which engage rectangular blocks J J on the bolts E E above them. The rear ends of the coupling-levers F F are provided with vertical projections K K, which are connected with the blocks J J by flat springs L L, the function of which is to throw the coupling-levers inwardly after the head of the coupling-bar passes their inner ends, where they are locked in the coupling position. The blocks J J are provided with laterally-extended arms M M, which are pivoted to each other and to the bifurcated angle-arm I.

To the upper end of the angle-arm I is pivoted the forward end of a bifurcated arm, N, the rear end of which is connected to the inner end of a crank-shaft, O, having a bearing, P, on the upper face of the draw-head,

and a bearing, P', secured to the end of the car-body A. The bearing P' is provided with a rack, Q, with two notches, R and S, for the lever T on the outer end of the crank-shaft. The lever operates the crank-shaft, and through this shaft and its connections the coupling-levers are operated. When the lever T is in the rear notch, R, the coupling-levers are spread apart in the draw-head, and the arrow-shaped head of the coupling-bar U will not engage the coupling-levers when entered into the draw-head. When the lever T occupies the notch S, the coupling-levers will be in the position shown in Fig. 2, and will engage the arrow-head of the coupling-bar and couple the cars. The lower section of the draw-head is provided on its upper face with a guide-stud, V, which engages the groove in the under face of the coupling-bar, and guides it to place when it enters the draw-head. By arranging the car-couplings in this manner it is unnecessary to enter between the cars to couple or uncouple them. When set for coupling, the device couples automatically, and to uncouple it is only necessary to pull the lever T to the rear notch, R, of the rack.

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

1. The combination, with the section C of the draw-head, provided with the mouth G and slot H, and the section D, secured thereto by bolts E E, and a rear connection, of the coupling-levers F F, having shoulders at their forward ends, and projections K K at their rear ends, the blocks J J, having arms M M, angle-arm I, springs L L, arm N, crank-shaft O, lever T, bearings P P', and notched rack Q, substantially as specified.

2. The combination, with the draw-head provided with the guide-stud V on the upper face of the lower section, and the pivoted coupling-levers and mechanism, substantially as described, for operating them, of the coupling-bar having grooves in its under face to engage the guide-stud, substantially as specified.

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

YOUNG FREMONT BLACK.

Witnesses:

WILEY BLACK,  
JNO. C. WARREN.