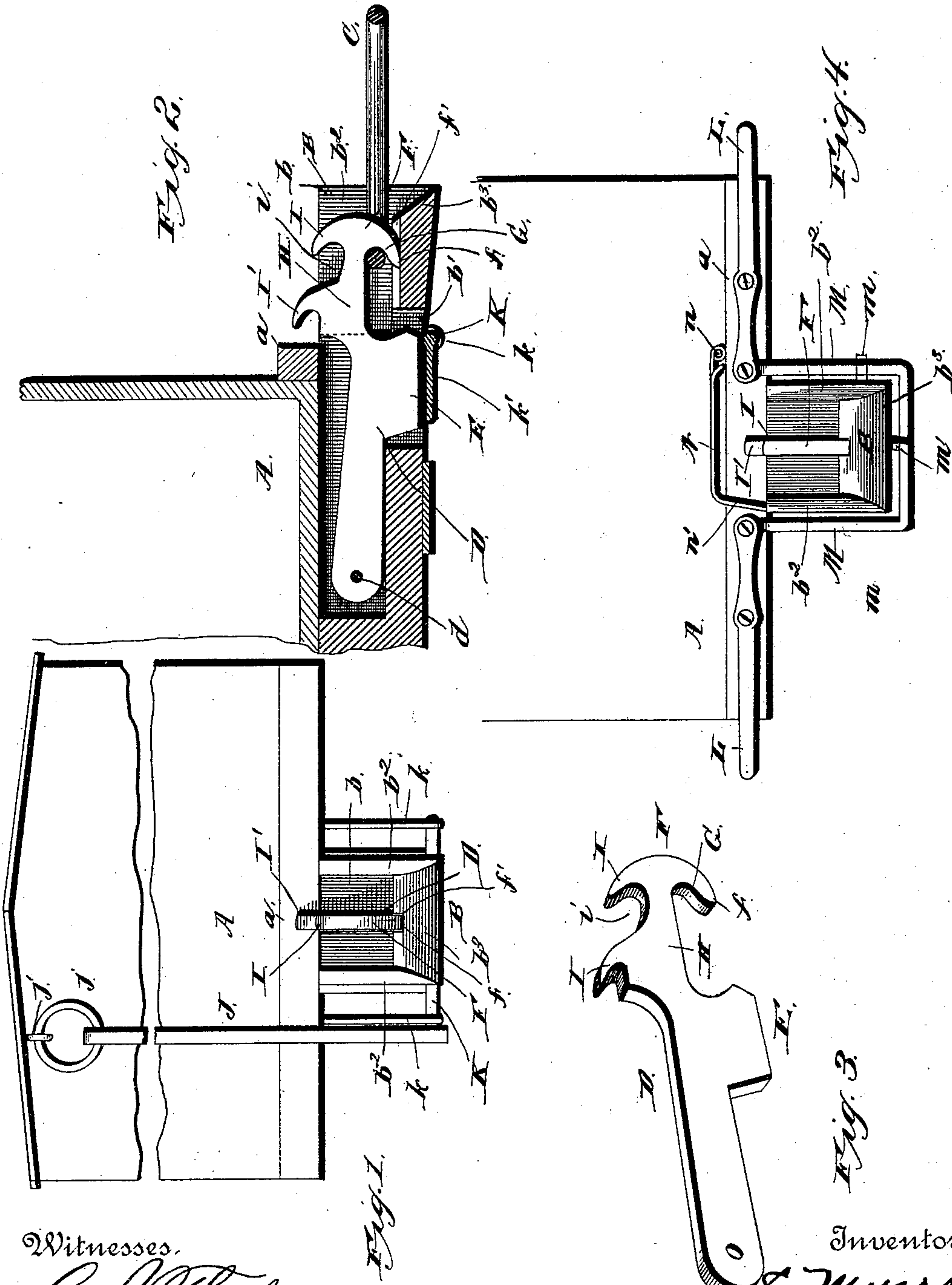


(No Model.)

S. MYERS.  
CAR COUPLING.

No. 396,047.

Patented Jan. 8, 1889.



Witnesses.

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# UNITED STATES PATENT OFFICE.

SAMUEL MYERS, OF MANHEIM, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS  
TO EMANUEL BALMER AND EPHRAIM W. SHUE, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 396,047, dated January 8, 1889.

Application filed June 19, 1888. Serial No. 277,527. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL MYERS, a citizen of the United States, residing at Manheim, in the county of Lancaster and State of Pennsylvania, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification.

The invention relates to improvements in car-couplers of the order in which a link connects the opposite draw-heads; and it consists in the construction and novel combination of parts hereinafter described, illustrated in the drawings, and pointed out in the appended claims.

The coupler is more especially adapted for attachment to freight-cars, though it may be attached to passenger-cars.

It is well known that a coupler of simple construction and effective in use is desired to connect freight-cars, so that the buffers and equalizing-bars can be dispensed with thereon, and this invention is intended to be used more particularly upon said style of cars.

Figure 1 of the drawings is the end of a car having a draw-head and coupling parts attached, that illustrate the invention. Fig. 2 is a central vertical longitudinal section of the said draw-head detached from the end of the car. Fig. 3 is a perspective view of the locking-bar detached. Fig. 4 is a face view of the end of a car having a modification of the lifting mechanism for the locking-bar attached.

Referring to the drawings by letter, A designates the end of the car having the draw-bar *a* secured thereto, and B designates a draw-head secured centrally to said draw-bar. The said draw-head is provided with the recess *b*, open at the upper side of the draw-head, and having the longitudinal slot *b'* in its floor. The sides *b<sup>2</sup> b<sup>2</sup>* of the mouth of the draw-head are beveled outwardly, and the floor *b<sup>3</sup>* thereof is beveled downwardly, to direct the link into the draw-head.

C is the link, of ordinary construction, and D is the locking-bar, that takes the place of a pin and is of peculiar construction. The said locking-bar is pivoted at its rear end upon a short transverse rod, *d*, having its ends secured in the sides of the draw-head beneath the floor of the car, and has upon its lower edge the rectangular projection E, that enters

the slot *b'*, thereby keeping the locking-bar from inclining laterally and preventing it from being pushed too far inward in the draw-head by the link when the coupler engages. The outer end, F, of the locking-bar is convex, and its lower point, *f*, rests within a longitudinal notch, *f'*, in the floor of the draw-head, and the said point makes a shoulder, G, that stands downward and inward from the shank H of the locking-bar and engages the link when the latter is pushed into the draw-head.

I I' are projections standing upwardly and inwardly from the shank H, and forming between them the inclined notch *i*, in which, when one car is taller than the adjoining one, the link can engage, so that cars of different heights can be coupled to each other.

J is a vertical lever having the ring *j* on its upper end, which ring can be made to engage a hook, *j'*, on the end of the car when the lever is raised. The lower end of the lever is secured to the adjacent end of the transverse shaft K, journaled in bearing-eyes in the ends of the bars *k*, extending downward and outward from the draw-bar, passing below the draw-head, and provided with an inwardly-standing arm, *k'*, which passes into the slot *b'* and rests against the lower edge of the projection E of the locking-bar, so that when the lever is turned downward the locking-bar will be raised by said arm *k'*. By lifting the locking-bar the link is released from its downwardly-standing point *f*.

Fig. 4 shows an end view of a car having a modification of the parts to lift the locking-bar attached. On this modification the vertical lever J is replaced by horizontal levers L, pivoted to the end of the car on each side of the draw-head. These levers have vertical rods M pivoted to their inner ends, which rods pass through guide-loops *m*, secured to the end of the car, and have their lower portions, *m'*, first bent inward and then upward to bear against the projection E of the locking-block and raise the same when the outer arm of either lever L is depressed.

By the last-described modification the locking-block can be lifted from the sides of the cars, and by the vertical lever it can be lifted from the top thereof.

N is a rectangular hood having one corner



formed into a sleeve, and with said sleeve journaled on a pin, *n*, outstanding from the end of the car at a proper point. The edge of the hood opposite that on which is the said sleeve is provided with the downwardly-standing flange *n'*, which rests on the edge or side of the draw-head, which can be thus covered by the hood to prevent the entrance of dust, dirt, snow, or rain into the recess of the draw-head.

The convex outer end, *F*, of the locking-bar causes the entering end of the link to ride either up or down, according to the height of the draw-head to which the link is attached.

Having described my invention, I claim—

1. The combination of the link of ordinary construction, the draw-head *B*, having the recess *b*, open at top, the sides *b*<sup>2</sup>, and floor *b*<sup>3</sup>, all inclined outwardly within the mouth of the draw-head, and the slot *b'* in its floor, and the locking-bar *D*, pivoted at a proper point within the draw-head and provided with the convex outer end, *F*, the projections or points *f* *I* *I'*, respectively, and rectangular projection *E*, standing in the slot *b'*, substantially as specified.

2. The combination, with the link, the draw-

head having its recess open above and having the slot *b'* in its floor, and the locking-bar *D*, having the convex outer end, the projections or points *f* *I* *I'*, respectively, and the rectangular projection *E*, resting in the slot *b'*, of mechanism, substantially as described, whereby the said locking-bar can be raised from the sides or top of the car, substantially as specified.

3. The combination of the draw-head having the longitudinal slot *b'* in its floor and the longitudinal notch *f'* in the upper side of the floor, the locking-bar pivoted in the draw-head and having the projection *E*, engaging the slot *b'*, and the point *f*, resting in the notch *f'*, the shaft mounted transversely on the bottom of the draw-head and having a crank-arm bearing against the projection *E*, and the link engaging the locking-bar, as set forth.

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

SAMUEL MYERS.

Witnesses:

JOHN D. WITTERS,  
J. KIEFFER.