(No Model.)

J. C. POWELL.

CAR COUPLING.

No. 489,391. Patented Jan. 3, 1893.

Fig. 1.

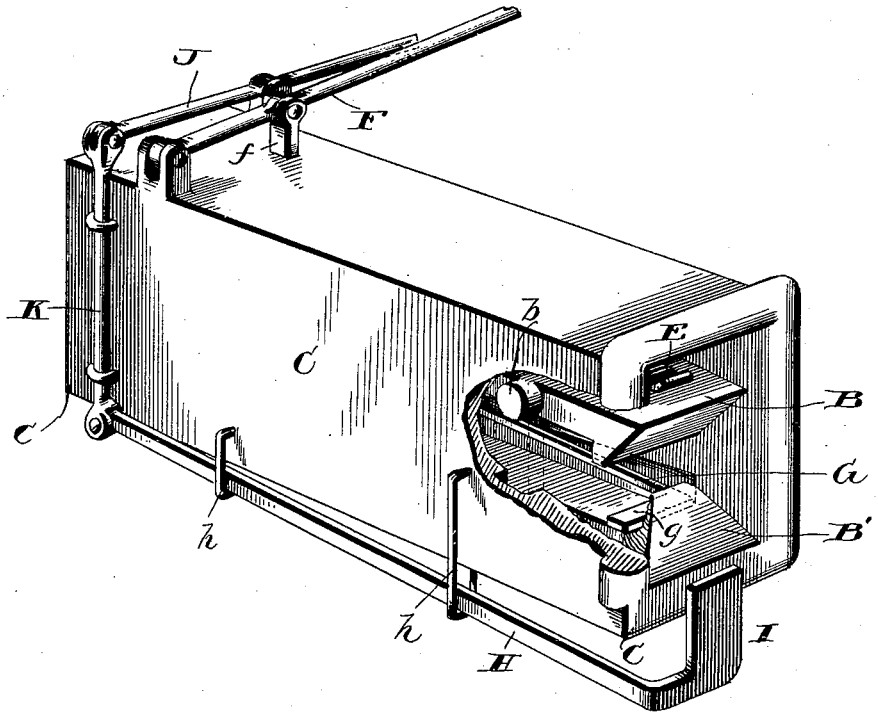


Fig. 2.

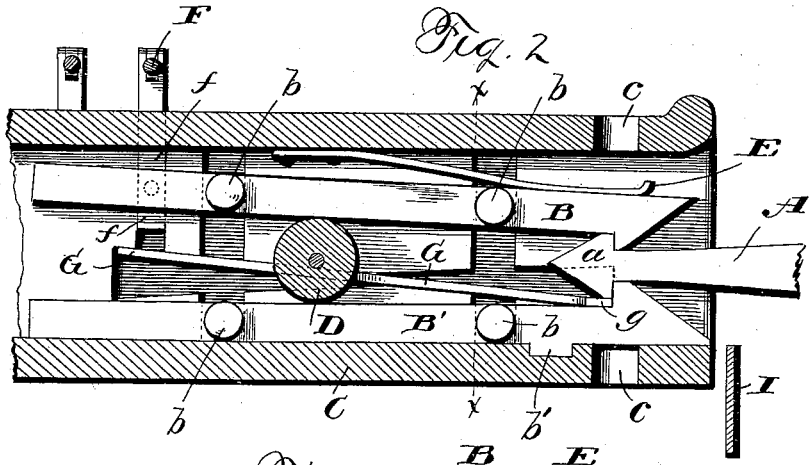
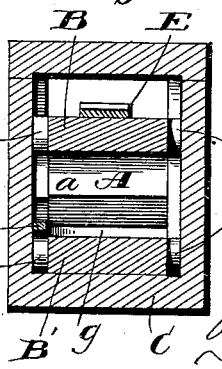


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH C. POWELL, OF BAYOU LA CHUTE, LOUISIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 489,391, dated January 3, 1893.

Application filed September 30, 1892. Serial No. 447,399. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH C. POWELL, a citizen of the United States, residing at Bayou La Chute, in the parish of Caddo and State of Louisiana, have invented certain new and useful Improvements in Car-Couplers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to provide an improved car coupler the coupling of which shall be automatic and the uncoupling of which can be effected without the necessity of going between the cars, and to this end my invention consists in the construction and combination of parts hereinafter specified, and shown in the accompanying drawings, in which,

Figure 1,—is a perspective view of my improved coupler, Fig. 2, a longitudinal section through the same Fig. 3, a transverse section.

My invention is of the class of couplers employing the arrow head form of link A and has for engaging the latter the two bars B and B′ arranged one above the other, and extending lengthwise of the chamber of the draw head C. Each bar has a beveled hooked end as shown for the ready passage between and engagement of the arrow form head of the link A. Only the upper bar B is designed to move to couple and uncouple, the lower bar B′ being fixed relatively immovable at the bottom of the drawhead chamber. The upper bar rests and rocks upon a transverse pin D about midway its ends, and, as is also the lower bar, is prevented from moving longitudinally by means of projections *b* on both sides and at two points along its length, that engage recesses formed in the side walls of the draw-head. Supplementary to the projections *b*, the lower bar has a projection *b′* on its under side engaging a cavity in the bottom of the draw-head. It will be noted that the pin D does not pass through the upper bar, but the latter simply rests upon it.

A flat spring E secured to the under side of the top of the draw-head and having its free end bearing upon the front end of the upper bar B, presses said end normally downward into the link engaging position and causes the coupling to be automatically effected, upon the entrance of the link A the proper distance into the draw-head.

The raising of the upper bar to un-couple, is effected by the lever F whose handle end is projected to the side of the car, and from which projects downwardly an arm *f* through an opening into the draw-head, which arm is connected to the rear end of the bar B. A downward movement of the lever raises the front end of the latter. To lift the link head *a* out of engagement with the hooked end of the lever bar B′ simultaneously with or shortly after raising the front end of the upper bar, a lever G is placed in a recess formed in the inner face of one of the sides of the draw-head whose front end has a horizontal extension *g* that rests upon the upper face of the lower bar immediately in the rear of its hooked end, so as to engage the under side of the arrow-head of the link A. The rear end of said lever G is in position to be engaged by an extension of the arm *f* below the under side of the upper bar, or by a projection on the latter, so as to cause its front end to be raised, and by the engagement of the extension *g* thereof with the link-head *a*, lift the latter clear of the hook of the lower bar B.

To permit of the safe coupling of cars whose draw-heads stand at different levels, a lever H, moving in guides *h*, *h*, on the out side of the draw-head, is provided, whose front end has a lateral and vertical extension I adapted to engage and elevate the link the required distance for coupling with a higher car. The lever H is to be manipulated by a handle J to be extended to the side of the car, and being connected to its rear end by a vertical link K that moves in guides upon the side of the draw-head. To couple with a lower car, it is only necessary to raise the front end of the upper bar B, whereupon the outer free end of the link will be lowered by gravity.

The draw-head is preferably constructed by casting its sides and bottom integral, and bolting on the top plate, but of course it may be made in other ways, it being only neces-

sary to provide for the proper placing in the same of its internal mechanism. If desired, instead of using the lower bar B, a projection can be formed on and integral with the bottom of the draw-head, to perform the function of the hooked end of said bar. Holes *c* are provided in the draw-head to enable the use of the ordinary pin and link coupler, should this be desirable or necessary.

Having thus described my invention, what I claim to be new and desire to secure by Letters Patent is,—

1. In a car coupler for use with an arrow head link, in combination a draw head, a rocking bar with a hooked end, a projection opposite the same at the bottom of the draw-head, means for raising said hooked end, and means to lift the link above said projection.

2. In combination, a draw-head having a projection at its bottom a rocking lever having a hooked end, normally tending downward, the lever for raising said end, and the lever G to lift the link A above said projection.

3. In a car coupler of the class described the rocking lever having a hooked end and lateral projections engaging recesses, in the sides of the draw head.

4. In combination, a draw-head having a projection on its bottom a rocking lever having a hooked front end, a spring for moving said end downward, the lever F engaging the rear end thereof for raising said hooked end and the lever G having the extension *g* in rear of said projection, and adapted to be actuated from the lever F. all substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH C. POWELL.

Witnesses:
SAM LISSO,
JNO. B. BROWN.