

(No Model.)

J. B. BUTTS.
CAR COUPLING.

No. 371,123.

Patented Oct. 4, 1887.

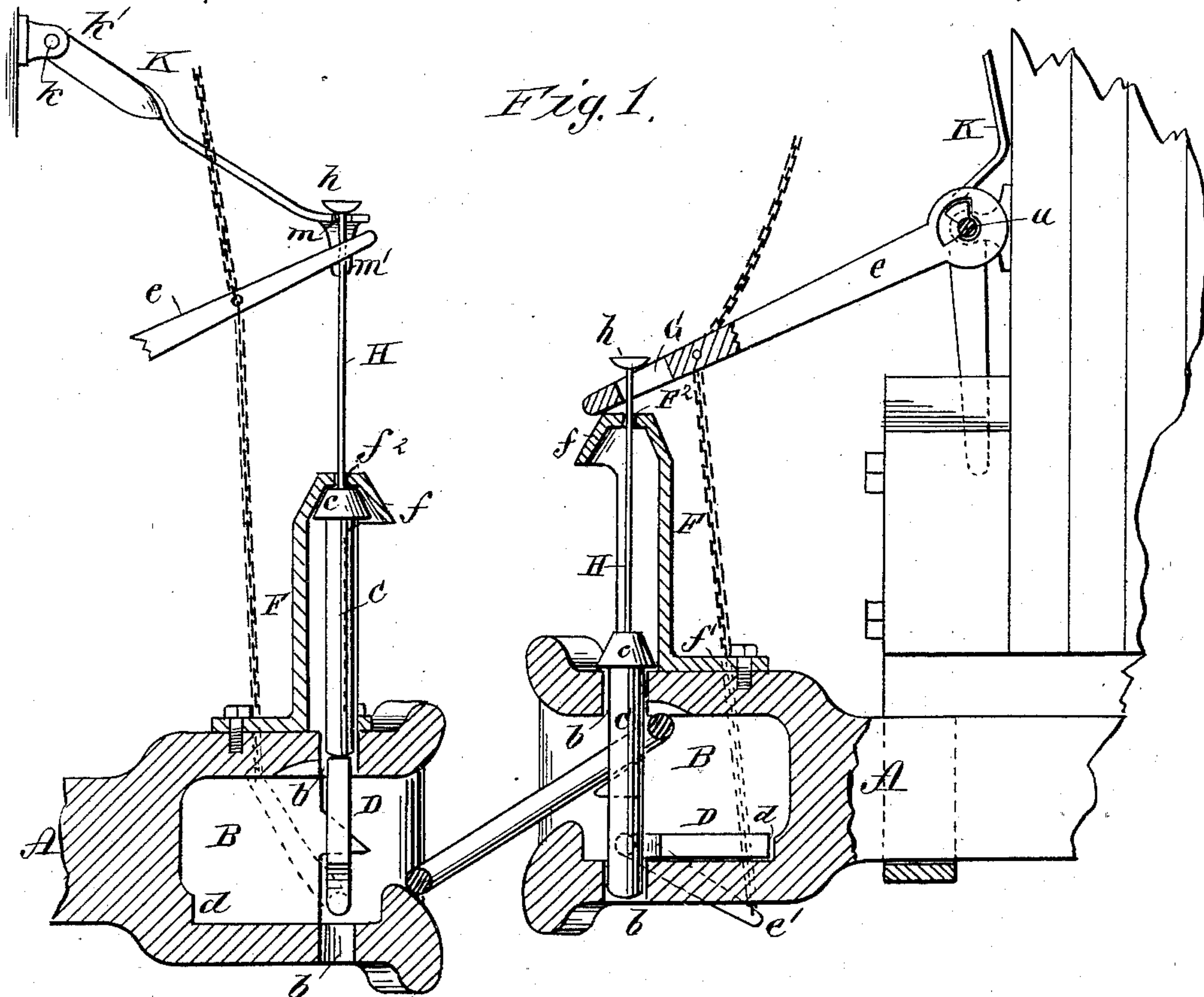


Fig. 2.

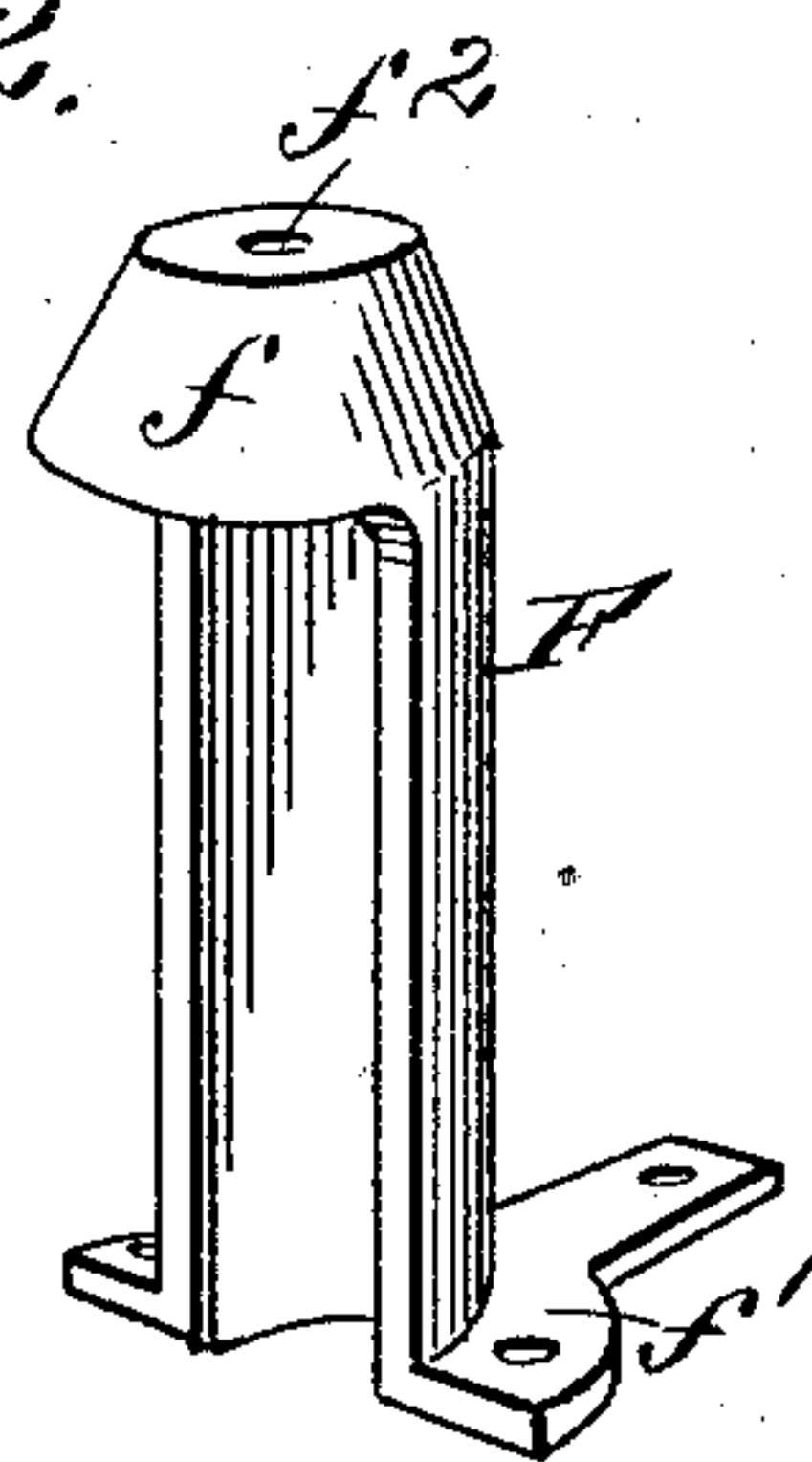
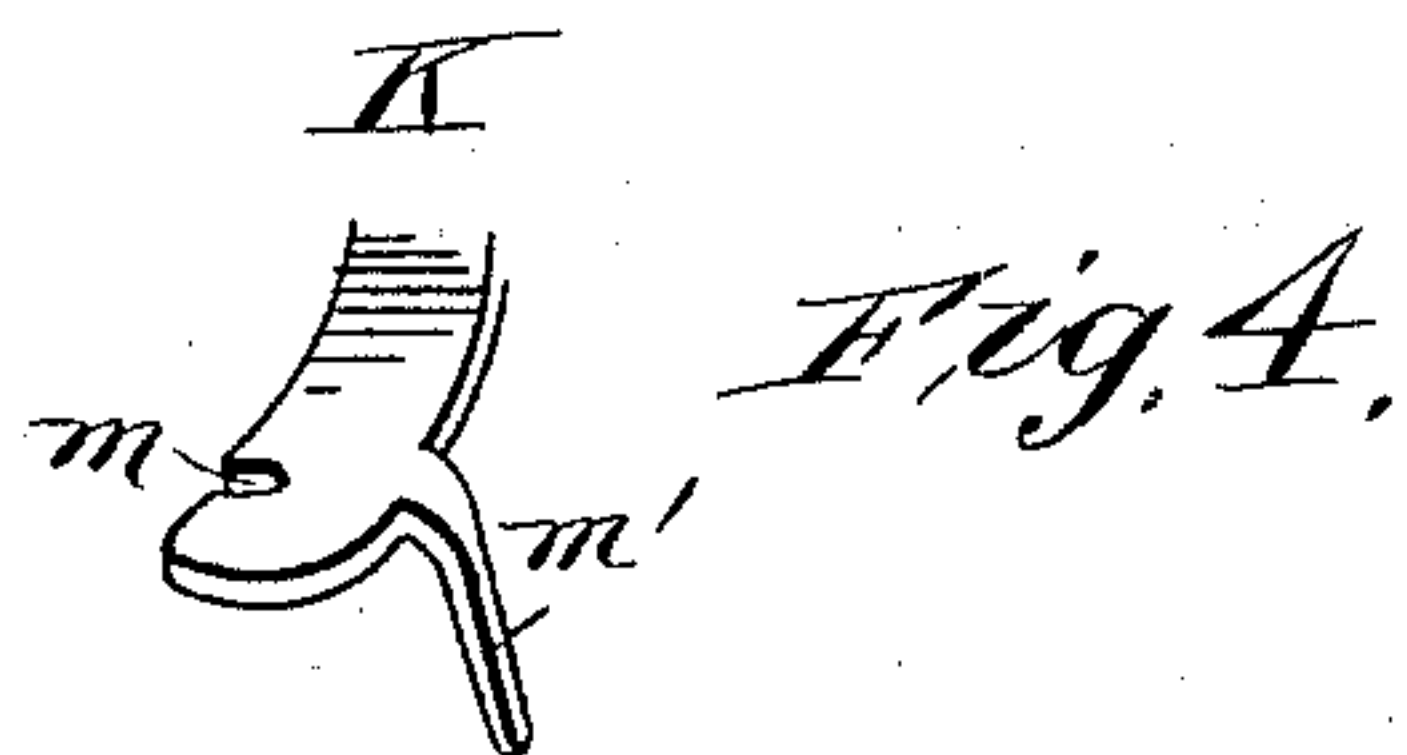
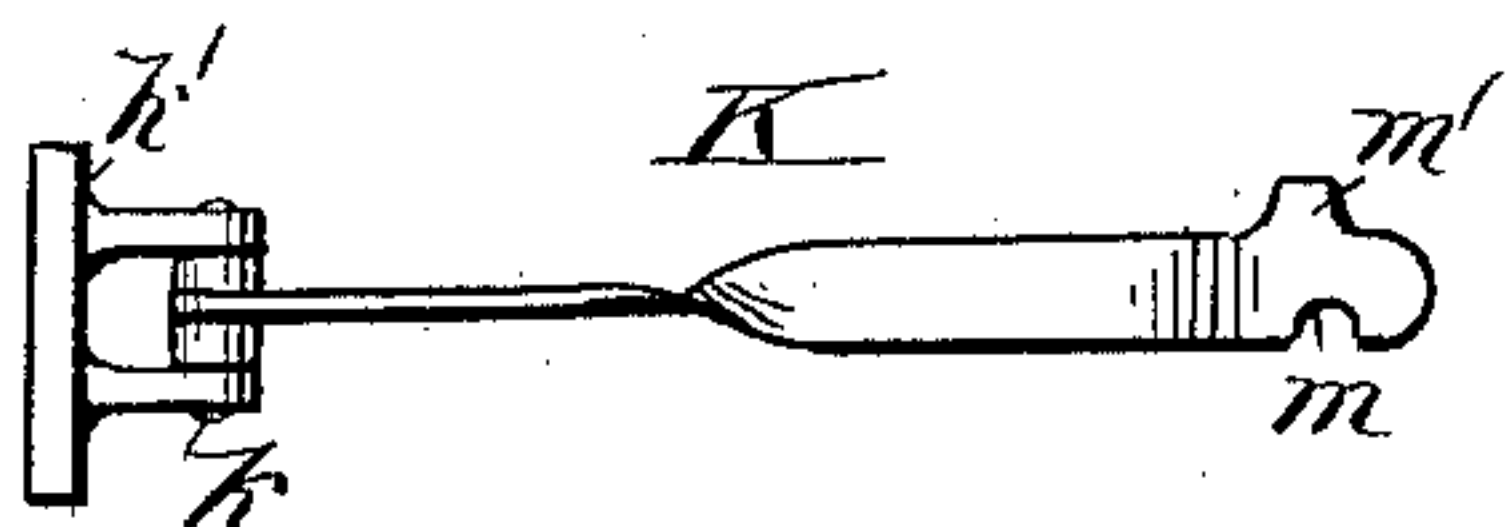


Fig. 3.



WITNESSES:

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JOHN BAPTIST BUTTS, OF KANSAS CITY, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 371,123, dated October 4, 1887.

Application filed February 4, 1887. Serial No. 226,553. (No model.)

To all whom it may concern:

Be it known that I, JOHN BAPTIST BUTTS, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

My invention relates to an improvement in car-couplings, and has for its object to provide a means for retaining the link in suspension outside the draw-bar when the cars are in an uncoupled position.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a central longitudinal view through opposing couplers, illustrating the pin in suspension above the draw-head and in position within the same. Fig. 2 is a perspective view of the pin-casing. Fig. 3 is a plan view of the retaining-arm, and Fig. 4 is a perspective detail view of said arm.

A represents the draw-head of a coupling; B, the link-opening, and *b* a central aperture extending through the draw-head near the mouth, adapted to receive a coupling-pin, C. In the bottom of the link-opening B a dog, D, is pivoted, adapted, when a coupling is effected, to rest horizontally in a recess, *d*, in the bottom of the link-opening, and when the car is uncoupled to sustain a vertical position beneath the suspended pin C, as described in a former application for Letters Patent, allowed September 14, 1886, No. 211,148. The dog D is operated either from the top or sides of the car by a transverse rod, *a*, journaled at the ends of the car, provided with crank-arms at its extremities and a chain-connection with the roof, the said transverse rod being adapted to carry a cam-actuated lever, *e*, centrally located thereon, which lever is in direct communication with the dog E through the medium of an arm, *e'*, as shown in Fig. 1, and also described in the aforesaid former application.

A partially semi-cylindrical casing, F, provided with a cone-shaped cap, *f*, and a flanged base, *f'*, is secured by said flanged base to the

upper side of the draw-head, the inner surface of the casing, which is made to extend vertically upward, being in vertical alignment with pin-aperture *b*. Centrally the upper surface of the cone-shaped cap *f* an aperture, *f*², is provided.

The central lever, *e*, attached to the transverse rod *a*, is provided with a slot, G, near its outer end, substantially in vertical alignment with the pin-aperture *f*² in the casing. The pin C, provided with the usual enlarged head, *c*, is adapted to enter its aperture *b* in the ordinary manner, its ascent and descent, however, being governed by the lever *e* through the medium of a vertical rod, H, attached to the head of the pin, which rod, passing upward through the casing-aperture *f*² and through the slot G in said lever *e*, is provided with an enlarged and flattened head, *h*. When the pin is positioned in the draw-head as shown to the right in Fig. 1, the lever *e* rests substantially upon the cap of the casing F, and the head of the pin-rod H upon the upper side of the free end of said lever.

Centrally the ends of the car, a distance above the shaft *a*, a twisted arm, K, is pivoted at its inner vertical end upon a pin, *k*, extending through a bracket, *k'*, which bracket is attached to the car, as shown in Figs. 1 and 3, the said twisted arm being adapted to move laterally upon said pin between the bracket-arms. The horizontal or free end of the twisted arm K is provided with a recess, *m*, in one edge and a downwardly cam-like projection, *m'*, upon the other edge, opposite said recess, as shown in detail in Fig. 4.

In operation, when it is desired to uncouple and leave the car so it will not couple with an opposing draw-head as the pin is raised by the lever *e*, the dog E rises to support the pin and throw out the link, as in my former application. The pin-rod H is then passed in engagement with the recess *m* of the twisted arm K, the head of said rod resting upon the upper face of said arm K. The lever may be now dropped to its normal position, as shown at the right in Fig. 1, and the dog E carried simultaneously to a horizontal position in the draw-head. Thus the draw-head may come in contact with an opposing draw-head and the cars remain disconnected.

In the event it is desired to couple, the lever

e is raised in the manner heretofore described. As the said lever ascends, its end, coming in contact with the cam-like projection *m'* of the twisted arm, carries said arm to one side, freeing the pin-rod *H*, thereby allowing the pin to drop in its aperture simultaneously with the drop of the lever *e*, the twisted arm *K* meanwhile swinging down out of the way against the end of the car.

10 I do not confine myself to the form of coupling described, allowed to me as above stated, as my improvement may be used in connection with various other link-and-pin couplers.

15 I am aware that a tubular casing has heretofore been placed above the pin-aperture of the draw-head, and means have been provided to raise the coupling-pin from the side of a car out of contact with the link and within the aforesaid tubular casing, as Letters Patent for 20 such construction was granted myself January 25, 1887. The object of the present invention is to improve the construction for raising the pin and to provide means for retaining the pin when raised in its elevated position, in order 25 that a car may be bumped or shunted without coupling with an opposing car against which it may strike.

Having thus fully described my invention, I claim as new and desire to secure by Letters 30 Patent—

1. The combination, with a draw-head hav-

ing a pin-aperture therein, a semi-cylindrical casing, *F*, attached to said draw-head and partially surrounding the pin-aperture, having an integral apertured hood, *f*, and a coupling-pin, 35 *C*, provided with a rod, *H*, passing through said casing, having an enlarged head, *h*, of a slotted lever, *e*, adapted to engage said pin-rod, and a pivoted arm, *K*, provided with a recess, *m*, at one end and a cam-like projection, *m'*, op- 40 posite said recess, the said recess adapted to receive the enlarged head of the pin-rod *H*, substantially as shown and described, whereby the coupling-pin is held in a raised position, as set forth.

2. The combination, with a draw-head having a pin-aperture therein, a semi-cylindrical casing, *F*, partially surrounding said aperture, provided with an apertured hood, *f*, and at- 45 tached to said draw-head, and a coupling-pin, *C*, provided with an integral rod, *H*, passing through said casing and having an enlarged head, *h*, of a slotted lever, *e*, adapted to engage said pin-rod, and a twisted arm, *K*, hinged to the car-body, provided with a recess, *m*, and 50 opposite cam projection *m'*, adapted to sustain said pin above the draw-head, substantially as shown and described.

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Witnesses:

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