

J. M. CLEM.  
Car-Couplings.

No. 152,077.

Patented June 16, 1874.

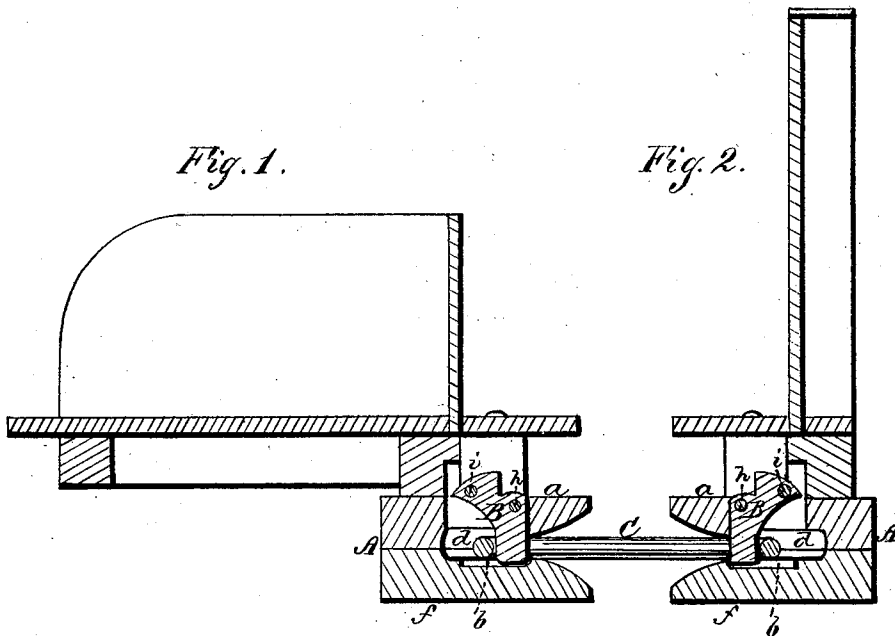
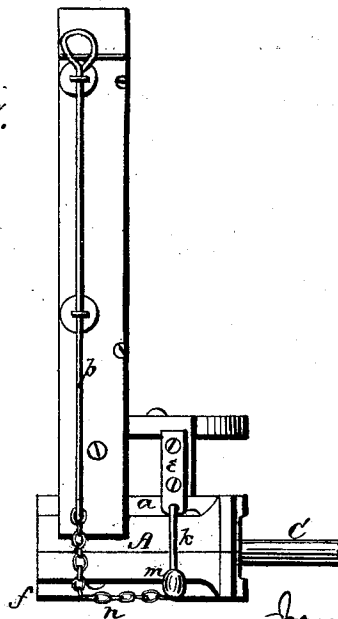


Fig. 3.



WITNESSES.

*H. H. Schott*  
*C. C. Evers*

INVENTOR.

*James M. Clem*  
By *Alexander Macdonald*  
Attorneys.

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Fig. 4.

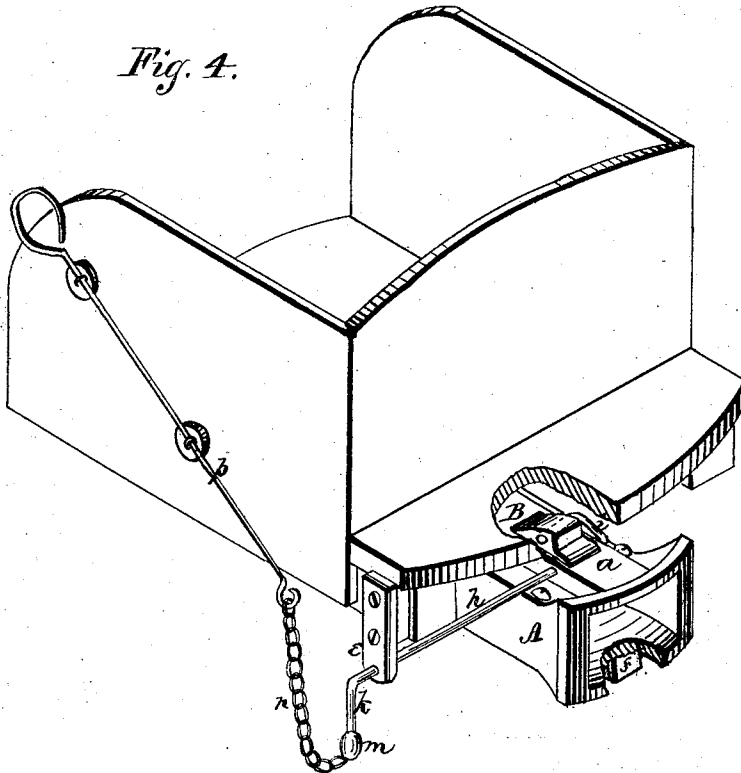


Fig. 5.

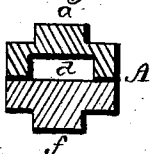
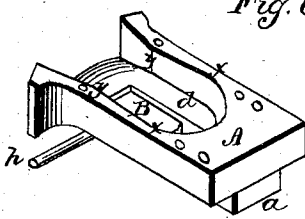


Fig. 6.



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*H. Schott,*  
C. L. Evert.

INVENTOR.

*James M. Clem*  
By *Alexander H. H. H.*

Attorneys.

# UNITED STATES PATENT OFFICE.

JAMES M. CLEM, OF OPELIKA, ALABAMA.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **152,077**, dated June 16, 1874; application filed May 9, 1874.

*To all whom it may concern:*

Be it known that I, JAMES M. CLEM, of Opelika, in the county of Lee and in the State of Alabama, have invented certain new and useful Improvements in Car-Coupling; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to that class of car-couplings in which a pin is pivoted in the upper part of the draw-head and hangs down vertically against a shoulder in the bottom of the draw-head; and the nature of my invention consists in providing the draw-head with a solid re-enforcement at the bottom to strengthen it and prevent the pin from dropping through it if the rod should give way.

My present invention relates to an improvement upon Letters Patent No. 147,901, granted to me February 24, 1874.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a longitudinal section of a part of a tender with my coupling attached thereto. Fig. 2 is a similar view of a car with my coupling attached thereto. Fig. 3 is a side view of the end of the car. Fig. 4 is a perspective view of a part of the tender. Fig. 5 is a cross-section of the draw-head, and Fig. 6 is an interior perspective view of the top of the draw-head.

A represents the draw-head, made in substantially the same form as those in general use, but provided with a re-enforcement, *a*, on top, which is slotted for the insertion of the pin B. The lower end of this pin enters a groove, *b*, in the bottom of the interior chamber *d* of the draw-head, and when the cars are coupled bears against the shoulder formed by the front end of said groove.

In a former patent granted to me, the lower end of the pin entered a slot in the bottom of the draw-head, which was objectionable, because, if the rod which pivots the pin should give way the pin would drop through.

To obviate this difficulty I provide the draw-head with a solid longitudinal re-enforcement,

*f*, on the bottom, which closes the slot and transforms it into the groove *b*. This prevents the pin B from dropping through if the rod should in any manner give way. It also adds strength to the draw-head and prevents the breaking of the flange by concussion. The interior chamber *d* of the draw-head is preferably made in U shape, as shown in Fig. 6, and made larger or wider at the bottom from *x* to *x* than at the neck from *y* to *y*, thereby allowing the coupling-link C free play at its inner end, to allow the outer end to move from side to side, as occasion requires. *h* represents the crank-rod, by which the coupling-pin B may be operated. This rod passes through the top re-enforcement *a* and through the pin B, forming the pivot upon which the pin works. The rod on one side is supported in a suitable bearing, *e*, and the other end, which projects beyond the other side of the re-enforcement *a*, is bent backward and then inward, forming the crank *i*, and inserted in the upper rear portion of the pin B, said pin being somewhat L-shaped, as shown in Figs. 1 and 2. The outer end of the rod *h* beyond the bearing *e* is provided with an arm or lever, *k*, which hangs downward in its normal position by means of a ball or weight, *m*, attached to its lower end. The lower end of the lever or the ball is, by a chain, *n*, connected with a rod, *p*, which rod on a car passes vertically up to the top thereof, so that the cars may be uncoupled from the top or side, as desired; but on a tender the rod runs in an inclined position backward, so that the fireman can uncouple the cars, if desired.

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

The draw-head A, provided with a solid re-enforcement *f* at the bottom, which extends the entire length of the draw-head and abuts against the forward part thereof, substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 4th day of May, 1874.

JAMES M. CLEM.

Witnesses:

JASPER H. STAPPEY,  
WILSON WILLIAMS.