

(No Model.)

2 Sheets—Sheet 1.

L. L. MOE.  
CAR COUPLING.

No. 573,896.

Patented Dec. 29, 1896.

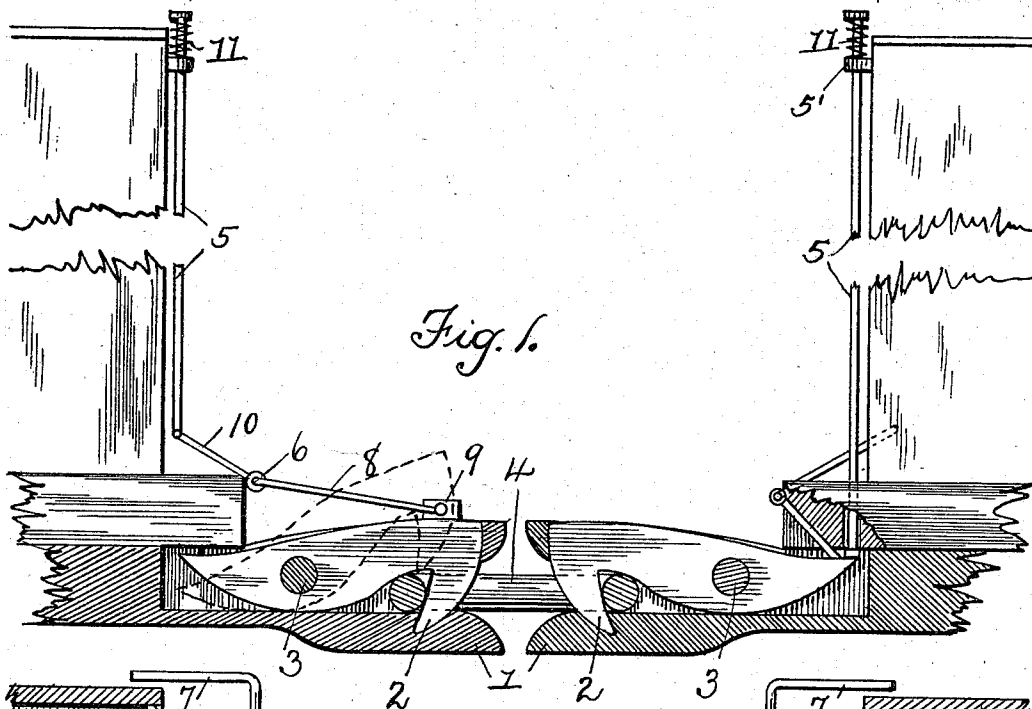


Fig. 1.

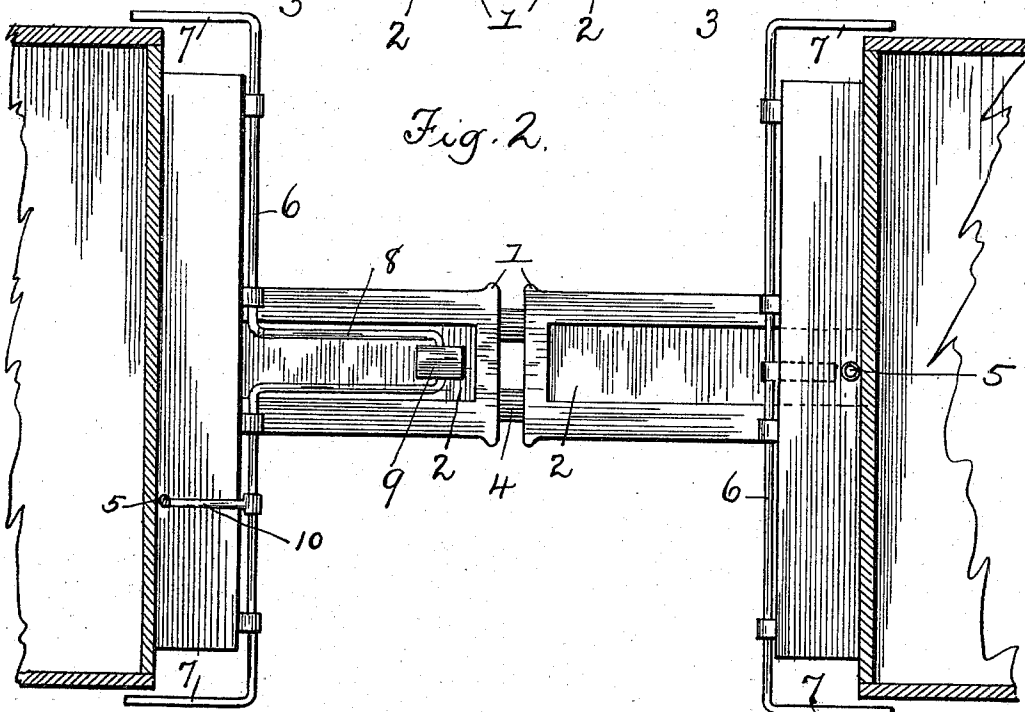


Fig. 2.

Witnesses  
Thos. E. Robertson  
W. E. Clendaniel.

Inventor  
Leonidas L. Moe,  
By T. W. Robertson  
Attorney

(No Model.)

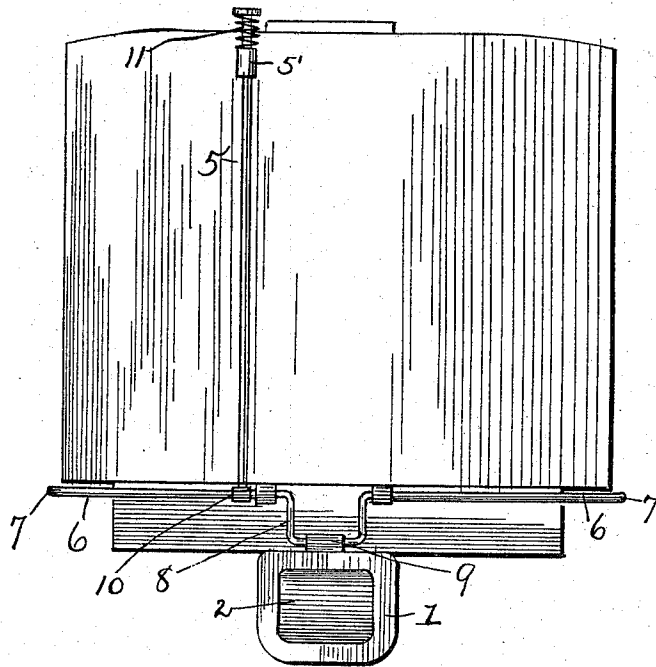
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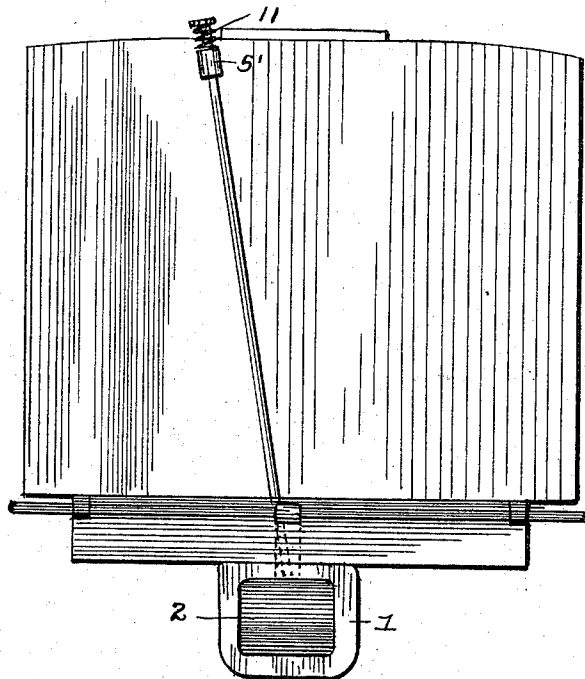
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*Fig. 3.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

LEONIDAS L. MOE, OF DENVER, COLORADO, ASSIGNOR TO THE DENVER  
AUTOMATIC CAR COUPLER COMPANY, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 573,896, dated December 29, 1896.

Application filed February 24, 1896. Serial No. 580,573. (No model.)

*To all whom it may concern:*

Be it known that I, LEONIDAS L. MOE, a citizen of the United States, residing at Denver, in the county of Arapahoe, State of Colorado, have invented a certain new and useful Improvement in Car-Couplers, of which the following is a specification, reference being had to the accompanying drawings.

This improvement relates to that class of automatic car-couplers in which hooks and links are employed, and it is designed to provide a coupler of this class which shall be strong, cheaply made, convenient in operation, and not likely to get out of order.

To these ends the invention consists in the construction hereinafter more particularly described and then definitely claimed at the end hereof.

In the accompanying drawings, Figure 1 is a side view of part of two cars with couplings constructed according to my improvement, partly in vertical section. Fig. 2 is a plan of the same, partly in section. Figs. 3 and 4 are end views of the two cars separated.

Referring now to the details of the drawings by figures, 1 indicates the draw-heads, having flaring mouths, and each of which is slotted to receive a hook 2, pivoted at 3 and adapted to rise, as shown in dotted lines, when the link 4 from another coupling enters the mouth and by pushing under the nose of the hook lifts it, or when it is raised by the means hereinafter described.

Running from near the rear or tail of the hook 2 is a rod 5, working in guides 5', the lower end of which rod rests on the rear of the hook, so that by pressing the top of said rod a train-hand or brakeman on top of the car can raise the hook to uncouple the cars. This rod is preferably arranged so as to have the upper end a little to one side of the center of the car at the side of the top foot-board.

Running along the end of the car is a shaft 6, having at each end a lever or arm 7 and at its center a crank 8, which works in a loop 9 (see the left-hand coupling) on the top of the hook, so that by pressing down on the levers 7 on either side of the car the hook may be raised to uncouple the car, or instead of using

the loop the crank may be carried backward and press on the tail of the hook, as shown in the right-hand coupling.

By the devices above described cars may be readily coupled by simply running them together, because as the link from one enters the mouth of the other it lifts the nose of the hook, and as soon as the link has entered far enough the hook drops by its own gravity, so that its nose enters the link and the cars are securely coupled without any one entering between them. The cars may be uncoupled with equal facility by pressing on the foot-piece on the top of the rod 5.

Instead of pressing directly upon the tail of the hook, the rod 5 may be connected to an arm 10, (see left-hand car,) and thus cause the crank 8 to press down the tail of the hook when the rod 5 is depressed.

In order to keep the weight of the rod 5 from normally pressing on the tail of the hook, and thus keeping the hook raised, I set a spring 11 around the rod between the foot-piece and the top guide, which by its expansive force will overcome the weight of the rod.

I deem it important that the acting end of the hook be supported by the front wall of the slot, as it saves strain on its pivotal pin and to some extent helps to strengthen the hook itself.

I am aware of the Patent No. 308,636 and make no claim to anything therein shown, as I consider my invention as essentially different therefrom, inasmuch as in that patent the strain all comes on the nose of the hook (which is entirely unsupported) and the pivotal pin, while in my case the strain on the pin is relieved by the nose of the hook being supported by the wall of the slot.

What I claim as new is—

1. The combination in a coupling device, of the slotted draw-head 1, the pivoted hook 2 inclosed in the slot in the draw-head and having its acting end supported by the end wall of said slot, the shaft 6 having an arm 8 acting directly on the hook and levers 7 for operating the same, and the rod 5 normally held upward by a spring and having a foot-piece on the top thereof, whereby the hook

may be raised from either side by the levers 7 or from the top by treading on the foot-piece, substantially as described.

2. The combination in a coupling device, 5 of the slotted draw-head 1, the pivoted hook 2 inclosed in the slot in the draw-head and having its acting end supported by the end wall of the slot, the shaft 6 having an arm 8 acting directly on the hook and levers 7 for 10 operating the same; and the straight rod 5 pressing on the tail of the hook 6 and normally held upward by a spring and having a

foot-piece on the top thereof, whereby the hook may be raised from either side by the levers 7 or from the top by treading on the 15 foot-piece, substantially as described.

In testimony whereof I affix my signature, in the presence of two witnesses, this 14th day of February, 1896.

LEONIDAS L. MOE.

Witnesses:

F. H. HYATT,

B. M. WEBSTER.