(No Model.) 2 Sheets—Sheet 1.

F. A. WESTBROOK.

CAR COUPLING.

No. 267,293. Patented Nov. 7, 1882.

Fig. 1.

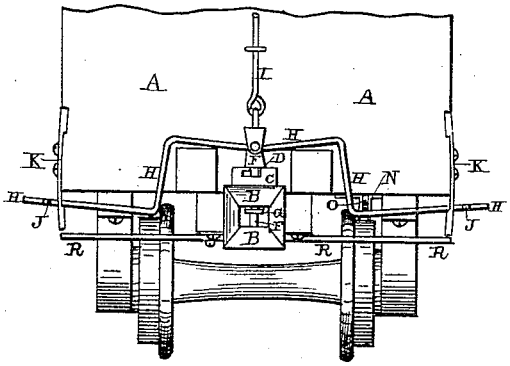


Fig. 2.

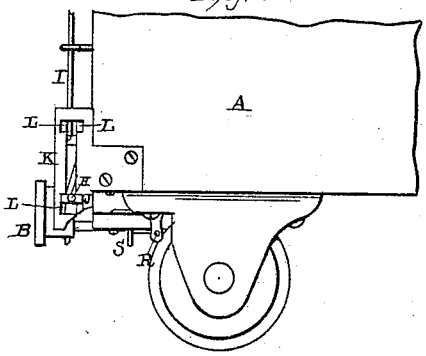
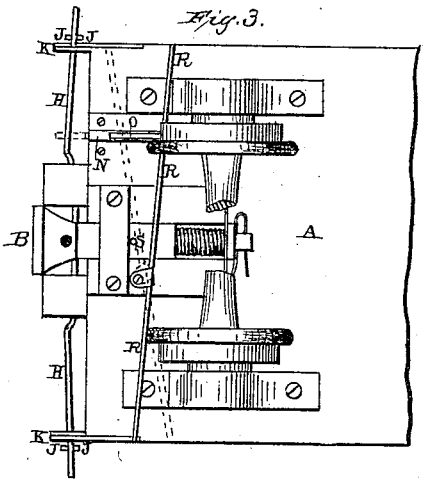


Fig. 3.



Witnesses;
J. C. Clark.
W. H. Kerr

Inventor;
F. A. Westbrook
per
F. A. Lehmann
Attorney.

(No Model.) 2 Sheets—Sheet 2.

F. A. WESTBROOK.

CAR COUPLING.

No. 267,293. Patented Nov. 7, 1882.

Fig. 4.

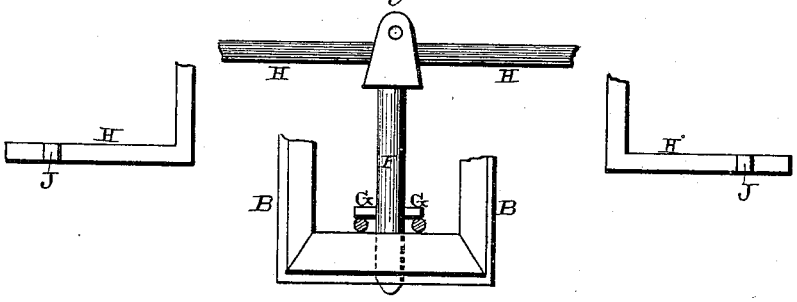


Fig. 5.

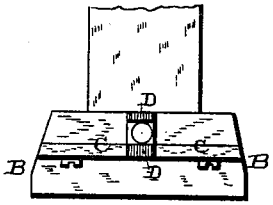


Fig. 9.

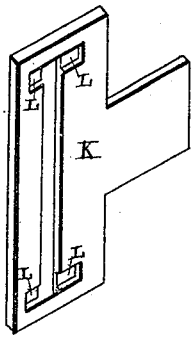


Fig. 6.

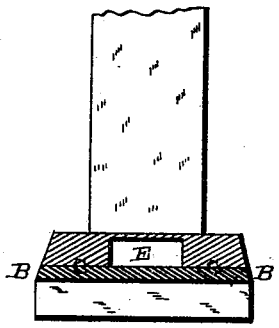


Fig. 7.

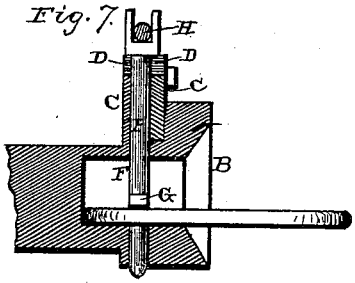
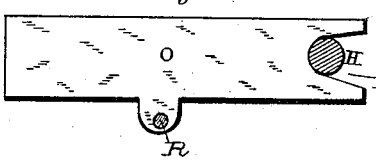


Fig. 8.



Witnesses.
W. H. Tinn
W. C. Clapp

Inventor.
F. A. Westbrook
per
F. A. Lehmann,
Atty.

UNITED STATES PATENT OFFICE.

FRANK A. WESTBROOK, OF PORT JERVIS, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 267,293, dated November 7, 1882.

Application filed August 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. WESTBROOK, of Port Jervis, in the county of Orange and State of New York, have invented certain new and useful Improvements in Car-Couplings; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in car-couplers; and it consists, first, in the combination of a coupling-pin, a bent rod which extends across from one side of the car to the other, and which is connected to the pin, with slotted guides which are attached to opposite sides of the car, and through which the ends of the bent rods pass, the guides being provided with suitable recesses in their sides for the projections on the ends of the rod to catch in, so that the pin can be raised from either side of the car ready to couple; second, in the combination of a slide having its front end notched, a pivoted lever for operating this slide, with the bent rod for holding up the pin in the slotted guides on the side of the car, whereby, when the draw-head is pushed backward when the cars run together, a projection on its under side will strike against the pivoted lever and force the slide backward, thus allowing the pin to drop and converting the common coupling into an automatic coupling, all of which will be more fully described hereinafter.

The object of my invention is to provide a coupling for cars in which the pin can be operated from either side without the necessity of the brakesman having to go between the cars for the purpose of coupling them, and which coupling can be operated like the ordinary link-and-pin coupling, or can be made to couple automatically when the cars run together, as may be desired.

Figure 1 is an end view of a car having my invention attached thereto. Fig. 2 is a side elevation of the same. Fig. 3 is an inverted view of the same. Figs. 4, 5, 6, 7, 8, 9 are detail views.

A represents a car of any suitable construction, and B a draw-head, which is like all of the common draw-heads now in use, with the exception of the casting C, which is applied to its top, and a slot which is made crosswise through the top of the head. The casting C may either be cast with the head in the first instance or it may be bolted thereto afterward, as may be desired. This casting C may either consist of a single solid piece or there may be several pieces bolted together, so that in case the pin should ever become bent and it be necessary to remove the pin the casting can be taken apart and allow the pin to be freely withdrawn. Across the top of the casting there is made a vertical cut, D, and then at right angles to this cut there is made a longer cut or slot, E, which extends down through the top of the draw-head.

The coupling-pin F is like the pin now in use in all respects, with the exception of the projection or projections G, which extend from one or both of its sides. These projections G serve to catch upon the top of the link and to hold it up, so as to guide it into the head of the car which is to be coupled on. These projections upon the pin add little or nothing to its cost, and provide a very cheap and efficient means of controlling the link so that the link can be held at any angle according to the height of the car that is to be coupled. These projections G make the slots D and E in the casting C upon the draw-head and in the top of the draw-head itself necessary. When the pin is being inserted into place it is turned at right angles to the position in which it is to stand while in use, and the projections G are then passed down through the slot D, and then the pin is turned at right angles, so that the projections G pass down through the slot E through the draw-head. There is a suitable recess made in the top of the head of the pin, so as to receive the operating-rod H, which extends from one side to the other of the car, and made through the top of the head at right angles to this recess are holes, through which a pin or bolt can be passed, so as to couple the pin to the rod I, which extends up to the top of the car. By means of the bent operating-rod and the rod I it will be seen that the coupling-pin can be operated from either side of the car or from the top of the car, and thus dispense with all necessity of the brakesmen going between the cars and endangering life and limb for the purpose of coupling them.

The bent operating-rod H has one or more

projections, J, formed on each end, and these ends of the rods pass through the slotted guides K, which are attached to opposite sides of the car. In the outer side of each one of these slotted guides, at each end of the slot, is made a recess, L, in which the projections J on the rod catch. When the rod is raised at either end, from either side of the car, until the projections J on its end catch in the recess at the upper end of the slot in the guide-plate, the rod will be held in this inclined position, holding the pin up with it. When it is desired to release the pin, so as to have it couple, it is only necessary to move the operating-rod endwise far enough to move the projections J out of the recess in the guide-plate, and the rod and pin drop from their own weight. The projections on the coupling-pin also serve to raise the coupling-head itself up in position in case it should ever sag downward when the operating-rod is lifted at either end. When the operating-rod is being used for the purpose of pressing the projections upon the pin down upon the link the projections on one end of the operating-rod are made to catch in the lower recess in the guiding-plate, and these projections, catching in this recess, serve as a fulcrum to enable the operating-rod to be used as a lever, and thus enable the brakesman to press downward upon the top of the link with any desired degree of force. By thus converting the operating-rod into a lever the coupling-link can be allowed to sag down to any desired extent, so as to bring its outer end on a level with draw-head of the car which is to be coupled.

In order to convert my coupler into an automatic coupler whenever it is so desired, I use a special attachment for that purpose. This attachment will only be brought into play when a number of cars are to be coupled together, and then the brakesman passing along can set one car after another ready to couple as soon as the cars are run together. Placed in a suitable guide, N, which is attached to the under side of the car, is a slide, O, which has a recess, P, made in its front end. Passing through a projection which is made on the lower edge of the slide is a pivoted rod, R, which is long enough to extend from one side of the car to the other, so that it can be operated alike from either side. Projecting from the under side of the draw-head is a suitable pin or projection, S, which, when the draw-head is forced backward, will strike against the pivoted lever, and in forcing it back force back the slide.

When it is desired to set the pin so that it will automatically couple, the operating-rod is first raised upward on the opposite side of the car from the slide and then the slide is pushed forward until the recess P in its end catches over the rod. This slide serves to hold the rod up, keeping the pin in a suspended position until the cars run together, when the draw-head will be forced backward far enough to cause the pin or projection on its under side to strike against the pivoted lever and force the slide back far enough to release the operating-rod, when the rod and pin at once drop from their own weight and couple the cars together.

By means of this construction it will be seen that the coupling can be used as an automatic coupling or not, as may be preferred.

I do not limit myself to any precise construction here shown or described, for this may be varied at will without departing from the nature of my invention.

Having thus described my invention, I claim—

1. In a car-coupling, the combination of the operating-rod provided with suitable projections or enlargements on its ends with the slotted guide-plates and the coupling-pin, substantially as shown.

2. In a car-coupling, the combination of the coupling-pin, the operating-rod having suitable projections or enlargements on its ends, and the slotted guide-plates having recesses in their outer sides for the projections or enlargements on the rod to catch in, substantially as described.

3. The combination of the pivoted rod R, the slide O, having a recess in its outer end, the rod H, pin F, and slotted guide-plates, substantially as set forth.

4. The combination of the draw-head B, having an endwise movement and provided with the projection S, the pivoted rod R, recessed slide O, rod H, pin F, and slotted guides, substantially as shown.

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

FRANK A. WESTBROOK.

Witnesses:
W. E. SCOTT,
L. E. GOLDSMITH.