

(No Model.)

S. SHULL.
CAR COUPLING.

No. 353,977.

Patented Dec. 7, 1886.

Fig. 1.

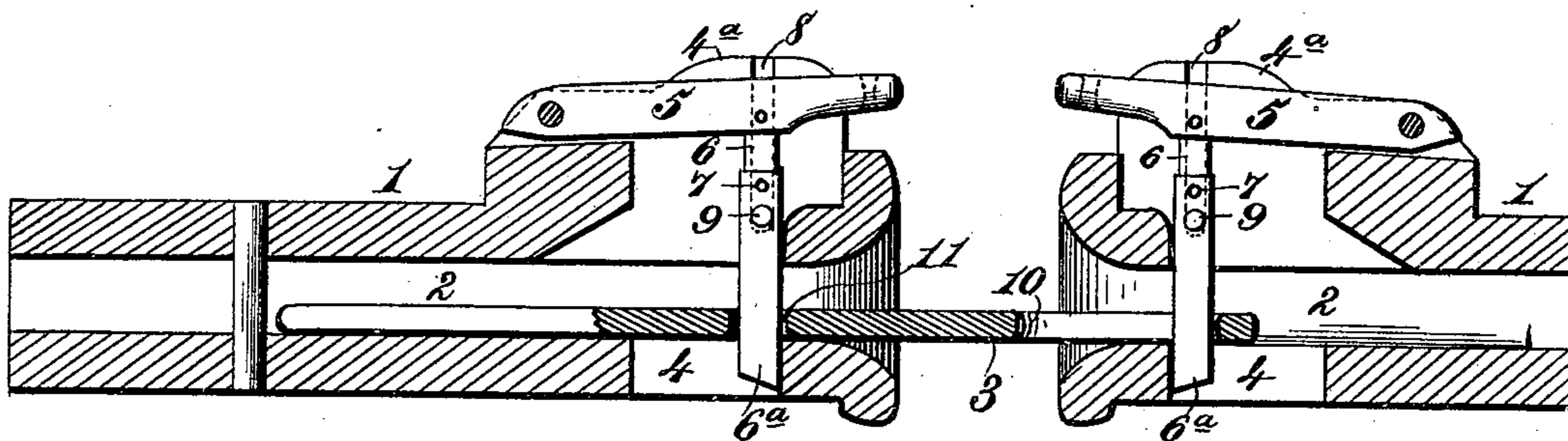


Fig. 2.

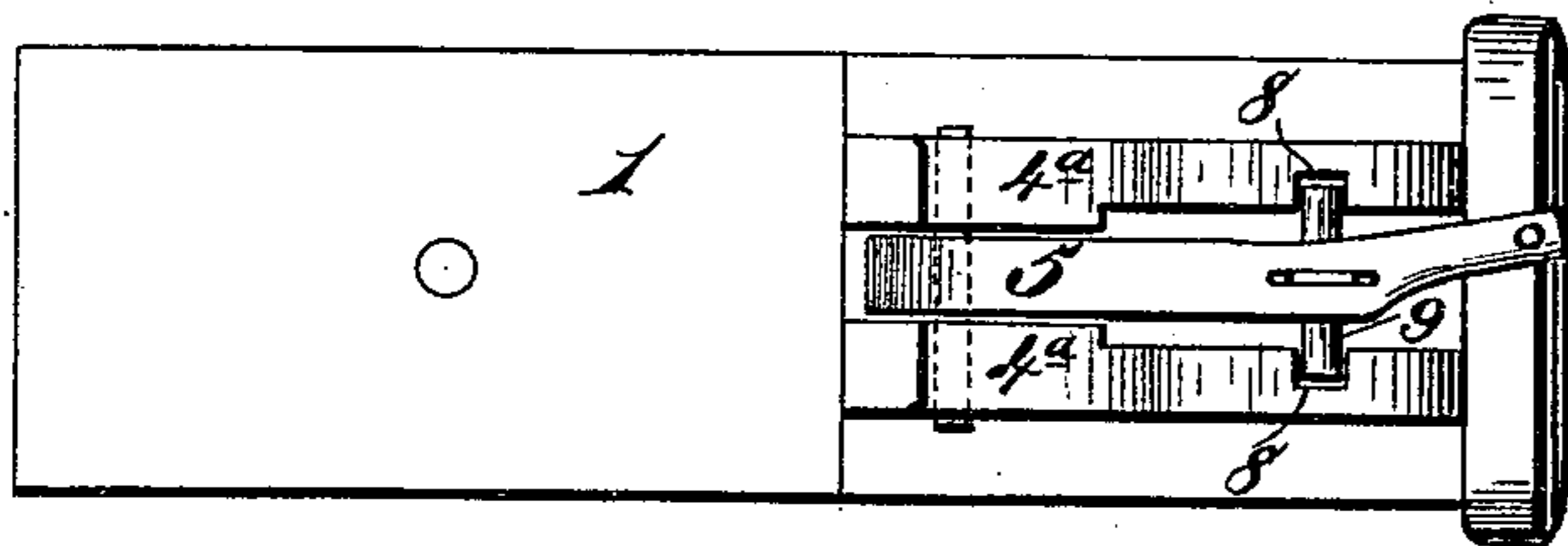


Fig. 3.

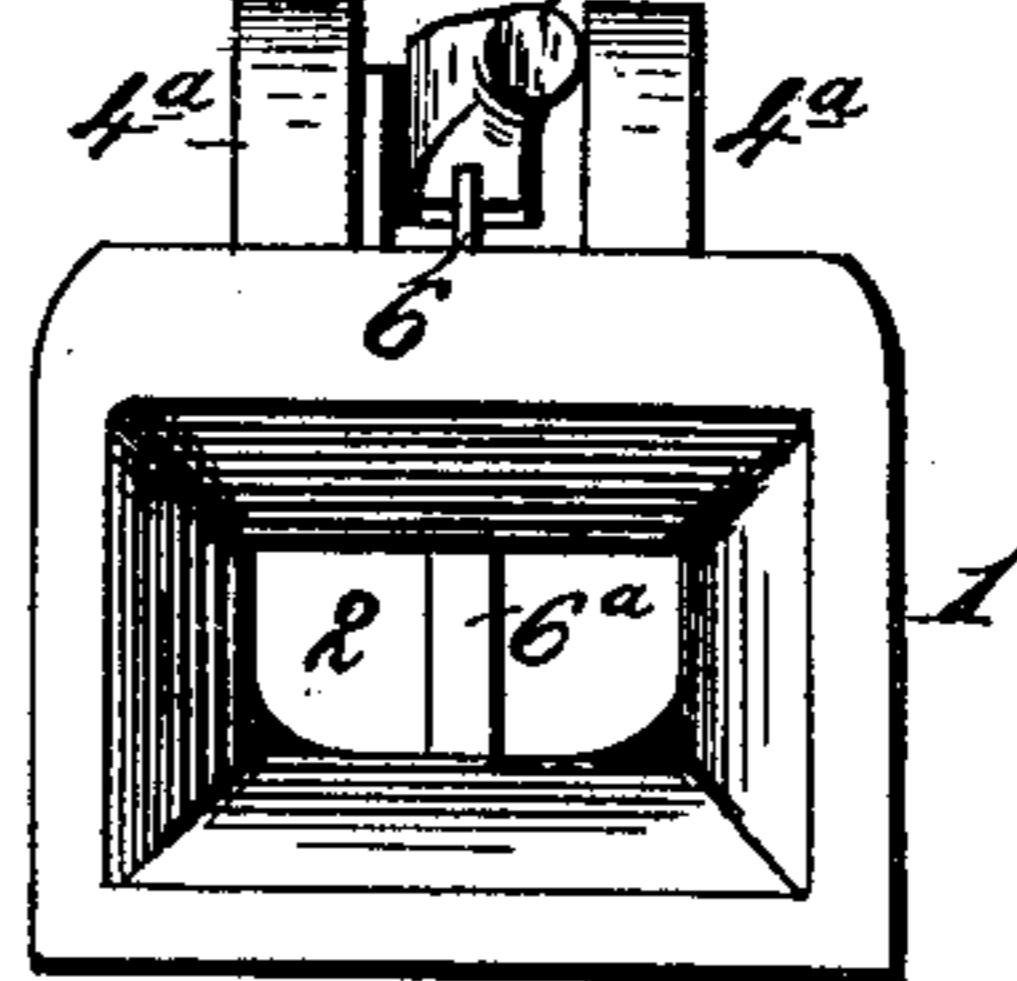


Fig. 4.

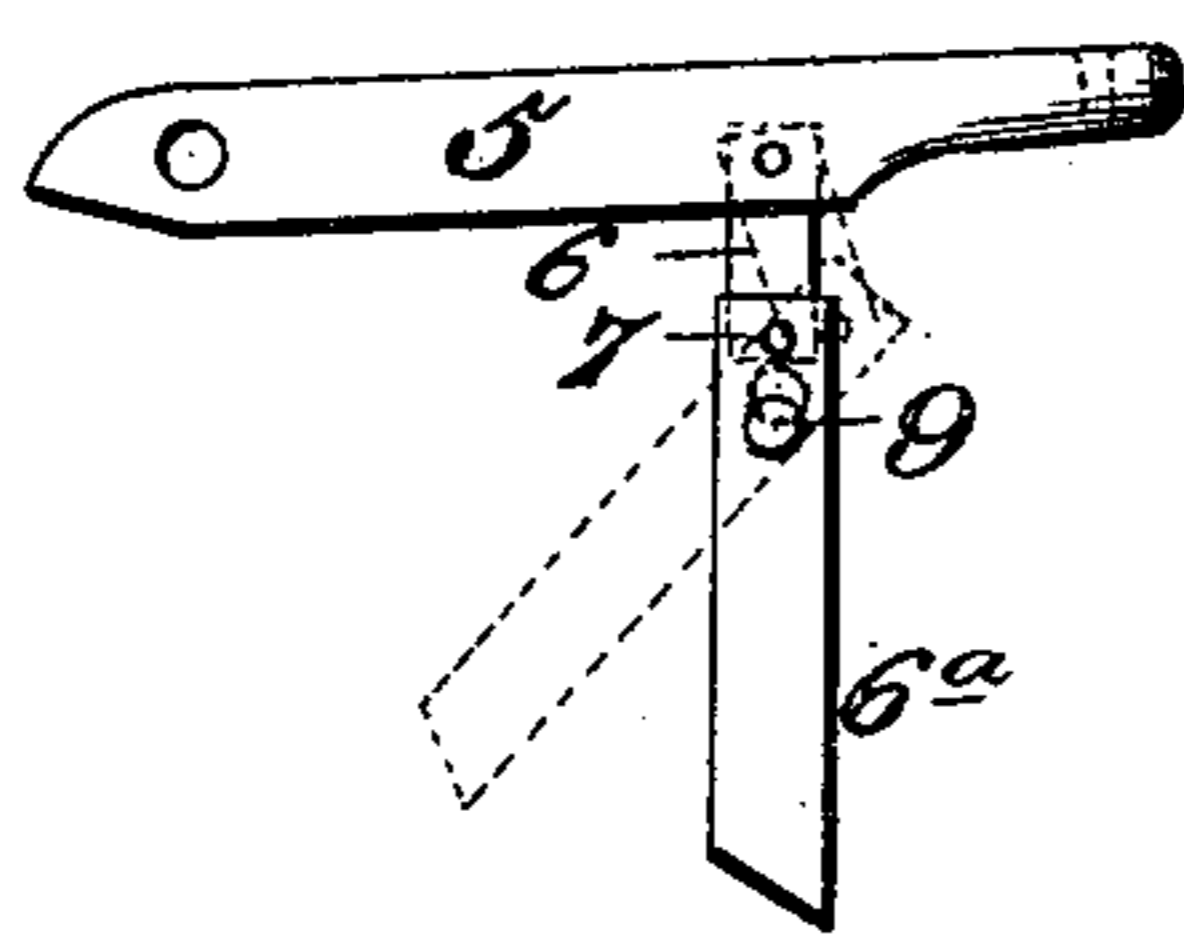
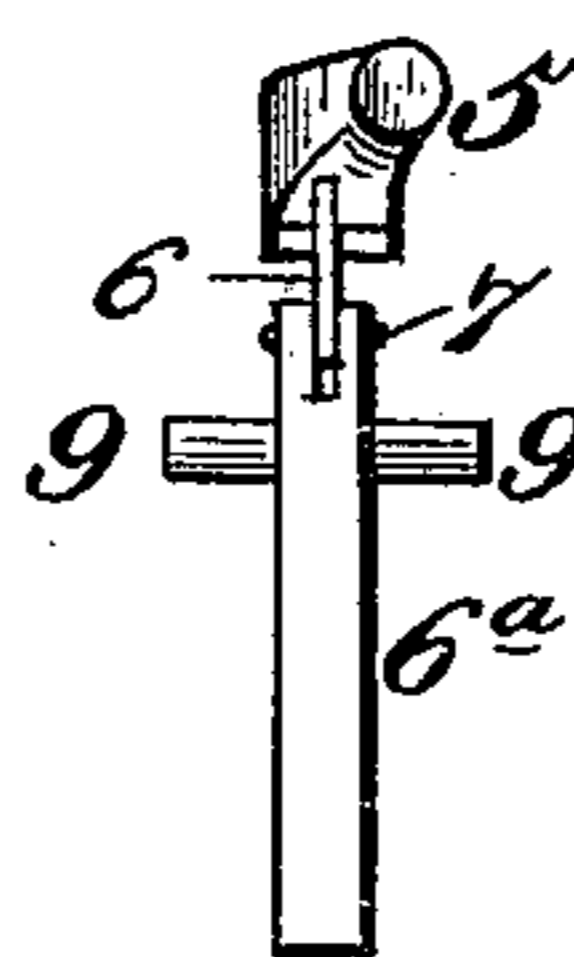


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

SAMUEL SHULL, OF RADERSBURG, MONTANA TERRITORY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 353,977, dated December 7, 1886.

Application filed September 23, 1886. Serial No. 214,367. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL SHULL, a citizen of the United States, residing at Radersburg, in the county of Jefferson and Territory of Montana, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

This invention has for its object to provide a novel, safe, and efficient coupling for automatically coupling railway-cars; and it consists, essentially, in the combination, with a draw-head having an elongated vertical passage or slot, of a lever pivoted at its rear end to a part of the draw-head, a link pivoted to the forward portion of the lever, and a pendent coupling-pin pivoted to the link and working in the vertical passage or slot in the draw-head, said pin having horizontal pintles projecting from its sides and working in vertical guide-grooves, all in such manner that the entering coupling-link striking the pin will swing it rearward until the lower end of the pin reaches the opening in the coupling-link, when said pin will, by gravity, swing forward to a perpendicular position and rest against the forward end of the vertical passage or slot in the draw-head, thereby coupling two adjoining cars and permitting them to be uncoupled by simply raising the lever on its pivotal attachment, which may be effected from the top or either side of the car, or from the engineer's cab, through the medium of any suitable connections.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of the draw-heads of two cars, showing the position of the parts when the cars are coupled; Fig. 2, a top plan view of one of the draw-heads; Fig. 3, a front end elevation of the same; and Figs. 4 and 5, detail views of the pivoted lever carrying the coupling-pin.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, where—

The numeral 1 indicates a draw-head having a longitudinal chamber, 2, for receiving the coupling link 3, and provided with a vertical passage or slot, 4, sufficiently elongated horizontally to permit the coupling-pin to swing to and fro, as hereinafter explained.

The draw-head, at its upper side, is provided with two parallel webs, 4, between which is pivoted the rear end of a lever, 5, carrying a pendent pivoted link, 6, to the lower end of which is pivoted, as at 7, the upper end of a coupling-pin, 6^a. The webs 4 are each provided at their inner faces with a vertical guide-groove, 8, in which groove are arranged the ends of horizontal pintles 9, extending from opposite sides of the pin at a point below the pivotal connection 7 of the pin and link 6. These pintles serve both to guide the pin in a right line when lifted by the upward swinging movement of the lever 5, and also as devices for holding the upper end portion of the pin in proper relative position when the entering coupling link or bar strikes the pin and swings it rearward for automatically coupling the cars. When the pin is struck by the entering link, the pintles 9 act as fulcrums on which the pin turns, the parts assuming the position shown in dotted lines, Fig. 4. As soon as the slot-opening 10 in the coupling-link 3 reaches a point under the lower end of the coupling-pin the latter, by gravity, swings forward to a perpendicular position and abuts against the forward end of the vertical passage or slot 4 in the draw-head, to effect the coupling and receive the draft.

The coupling-link is preferably provided with a hole, 11, with which the coupling-pin of one draw-head engages to hold the pin in proper position to enter the adjacent draw-head and automatically couple the cars.

To uncouple the cars, the lever 5 is raised at its forward end, thus lifting the coupling-pin in a right line until it disengages the coupling-link. This may be effected from the top or either side of the car, or from the engineer's cab, through the medium of any suitable system of rods, chains, or cables connected with an eye, 12, or other device of the lever.

The links, by being bent, as usual, may be used to couple cars of different heights, and also to couple a car having my invention applied thereto with a car having the ordinary and well-known coupling-pin.

Having thus described my invention, what I claim is—

1. The combination, with a draw-head having the elongated vertical slot, of the lever pivoted at its rear end to the draw-head, a

pendent link pivoted to the forward part of the lever, and a pendent coupling-pin having at its sides lateral pintles located below its upper end and pivoted at its upper end to the
5 pendent link above the lateral pintles, substantially as described.

2. The combination, with a draw-head having parallel webs on its upper side provided with guide-grooves, of the lever pivoted at its
10 rear end between the webs, a link pivoted to the lever, a coupling-pin pivoted at its upper

end to the link, and horizontal pintles projecting from the pin below the point where it is pivoted to said link and engaging the grooves in the webs, substantially as described. 15

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

SAMUEL SHULL.

Witnesses:

GEO. F. PASSMORE,
W. H. STARKWEATHER.