(No Model.)

F. M. COOMBS.

CAR COUPLING.

No. 520,394. Patented May 22, 1894.

Fig. 1.

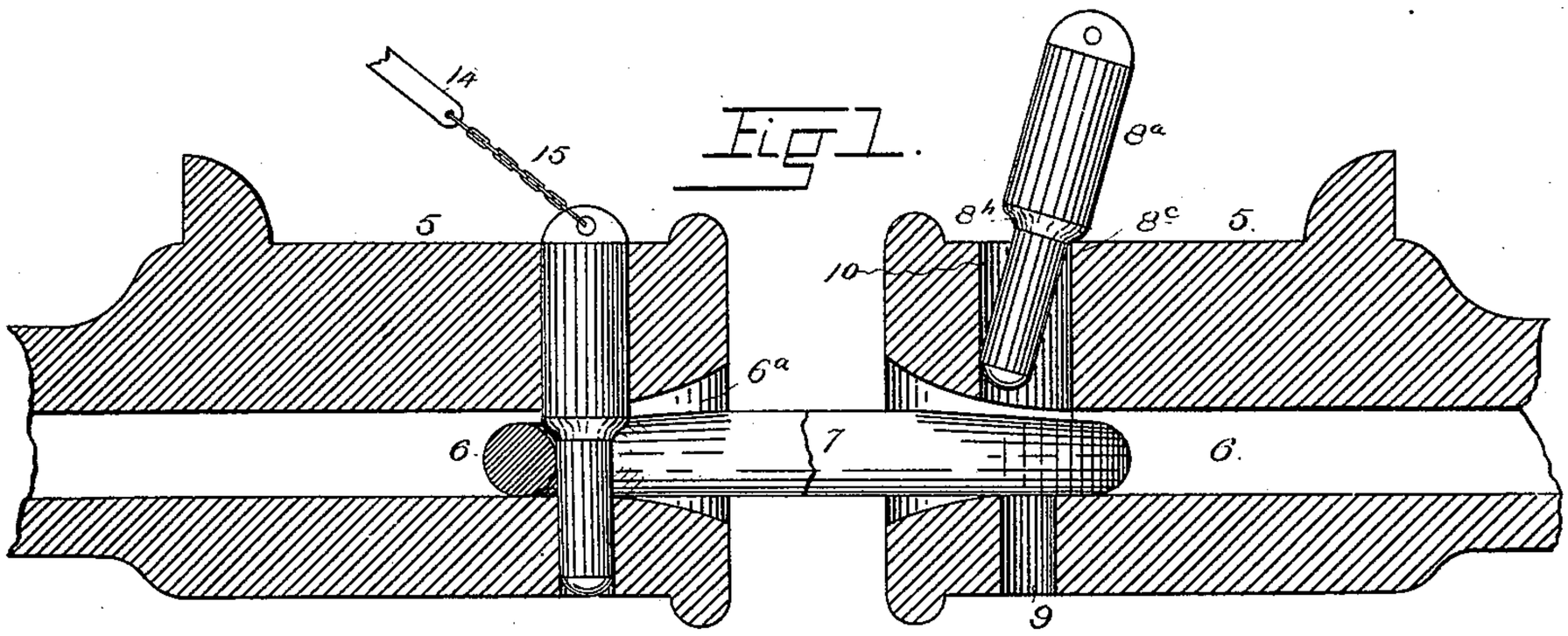


Fig. 2.

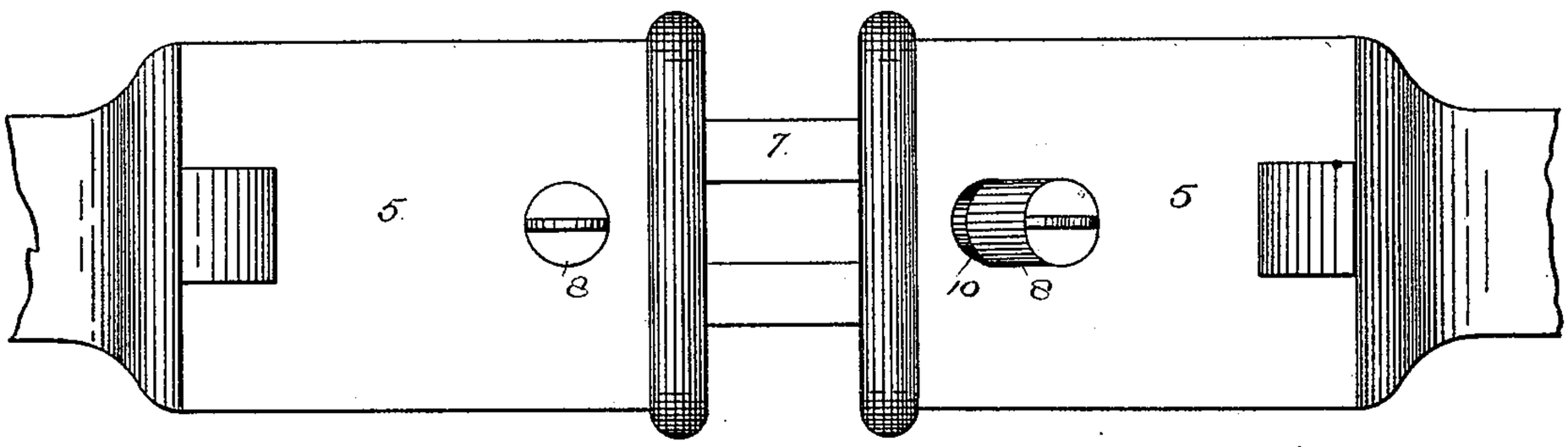


Fig. 3.

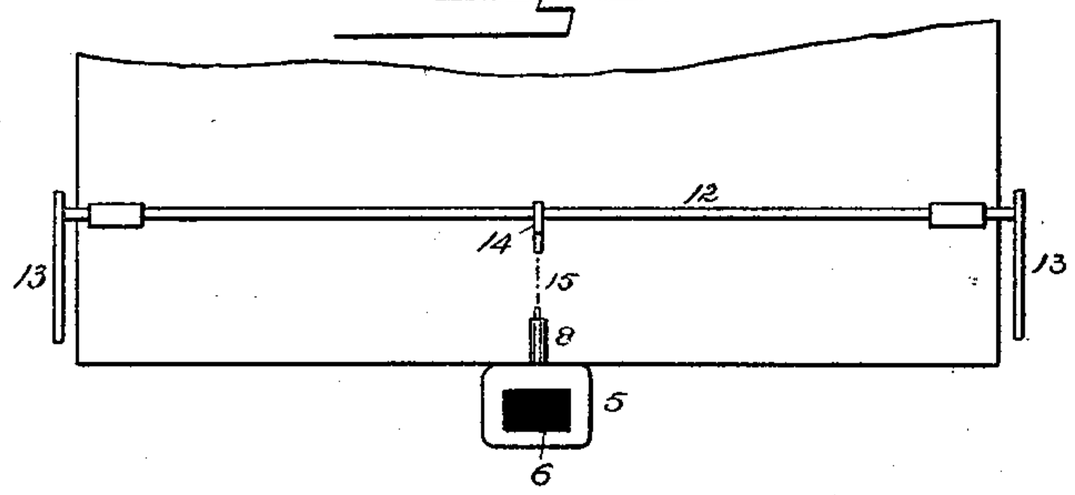
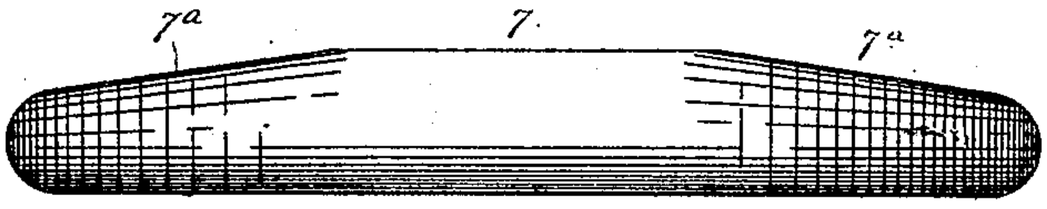


Fig. 4.



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FREDERICK M. COOMBS, OF ASPEN, COLORADO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 520,394, dated May 22, 1894.

Application filed January 13, 1894. Serial No. 496,824. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK M. COOMBS, a citizen of the United States of America, residing at Aspen, in the county of Pitkin and State of Colorado, have invented certain new and useful Improvements in Car-Couplers; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in car couplers, and my object is to provide a simple device of this class which will be thoroughly practicable, reliable and durable in use, as well as automatic in action, and which may be used with the ordinary link and pin draw-heads after a slight change in the latter, which change can be accomplished at a small cost.

To this end, the invention consists of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a longitudinal vertical section taken through two adjacent draw-heads provided with my improvements. Fig. 2 is a top or plan view of the same. Fig. 3 is an end view of a car equipped with my improved coupling, and illustrating means for uncoupling the cars. Fig. 4 is a detail view of improved link.

Similar reference characters indicating corresponding parts or elements in these views, let the numeral 5 designate the draw-head provided with the link recess 6 somewhat enlarged at the mouth as shown at 6^a to guide the approaching link extremity to position.

I employ a link 7, the central portion of which, is thickest, while it is beveled or tapered toward its extremities on one side as shown at 7^a, while the opposite side is flat, or lies in the same plane throughout its length.

The draw-head is vertically recessed to receive the coupling pin 8 composed of the upper enlarged portion 8^a, the lower reduced portion 8^c, and the intermediate beveled shoulder 8^d. It is my intention that the part 8^c of the pin shall be of the same size as the ordinary coupling-pin, and therefore adapted to enter the pin-hole 9 in the lower part of the ordinary draw-head without change. The ordinary vertical opening for the pin in the upper part of the draw-head must be somewhat enlarged as shown at 10 to receive the enlarged portion 8^a of the pin, while the beveled shoulder is fashioned to engage the link and support it in the position ready for coupling.

If the draw-heads of the cars to be coupled are of the same height, the flat side of the link is placed downward, whereby the pin will be supported in the horizontal position. If, however, the draw-head holding the link, is lower than that of the approaching car, the link is turned over so that one of its beveled faces 7^a engages the bottom of the link recess. When in this position, the pressure of the pin 8 will hold the link in a position inclined upward, whereby its outer extremity will be considerably more elevated, and in position to enter the recess of the higher draw-head.

Cars provided with my improved coupling devices are uncoupled by means of a transverse bar 12 journaled to the end of the car and provided with cranks 13 attached to its extremities and located outside the car. To the center of the car 12 is attached a rigid projecting arm 14 whose outer extremity is connected with the top of the pin by means of a chain 15. It will thus be seen that by giving the bar 12 a partial rotation, the pin 8 may be raised from the coupled position, shown at the left in Figs. 1 and 2, to the uncoupled position shown at the right in the same figures. When the pin is in the uncoupled position, the concussion or jar resulting from the engagement of the two draw-heads will throw it downward automatically to the coupled position.

Having thus described my invention, what I claim is—

1. The link, thickest in the middle, and tapering therefrom to its extremities on one side, while the opposite side lies in the same

plane from end to end, whereby the portions of the link which enter the draw-heads, and through which the coupling pins pass, shall be inclined to the plane of the link-supporting parts of the draw-heads, substantially as described.

2. In a car coupler, the combination with the draw-head of a link having a thick central portion and beveled or tapering extremities on one side, while the opposite side lies in the same plane from end to end, and the pin having the upper enlarged portion, the lower reduced portion, and the intermediate shoulder adapted to engage the link, substantially as described.

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

FREDERICK M. COOMBS.

Witnesses:
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