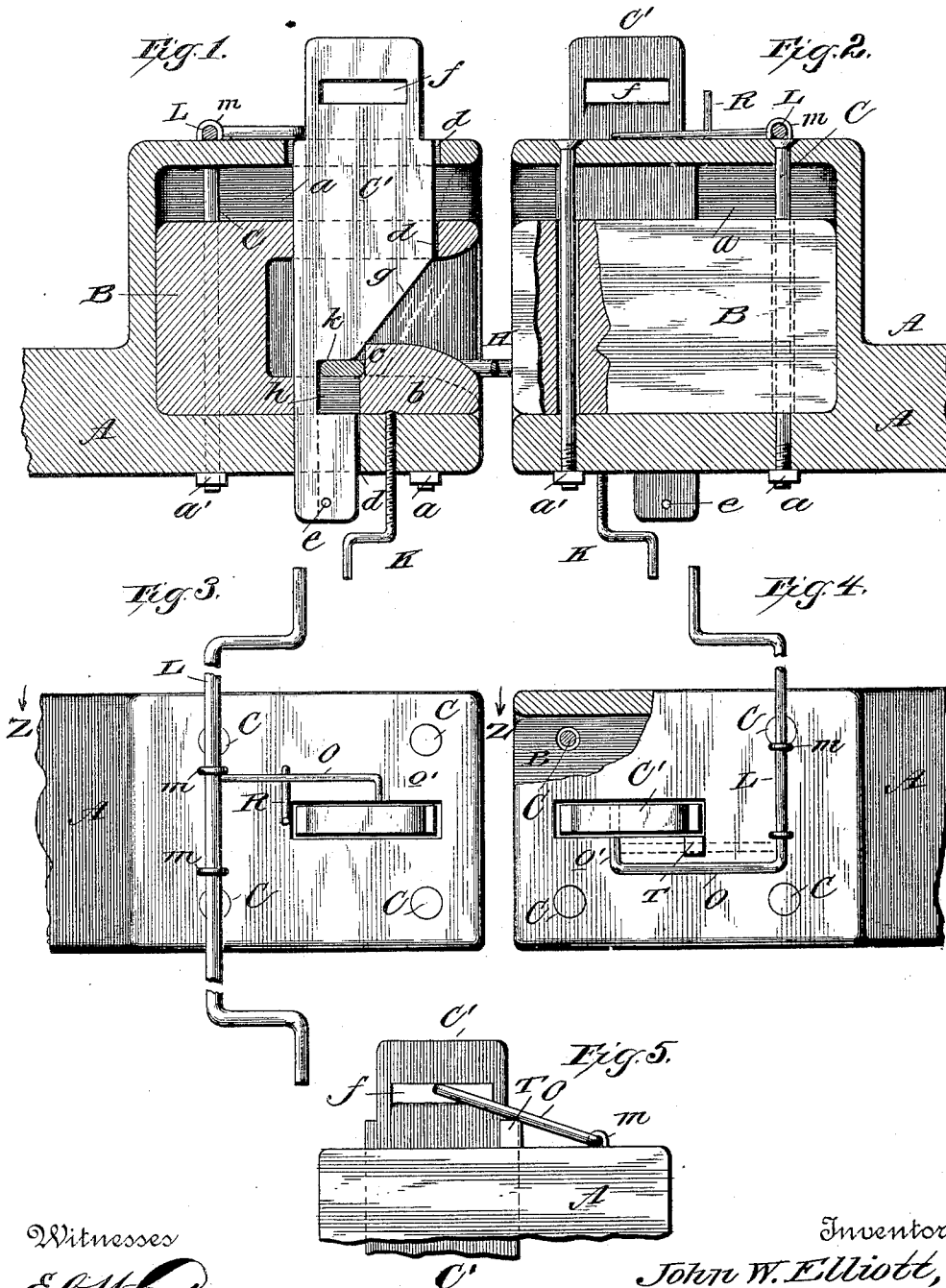


(No Model.)

J. W. ELLIOTT.
CAR COUPLING.

No. 462,401.

Patented Nov. 3, 1891.



Witnesses

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 462,401, dated November 3, 1891.

Application filed June 4, 1891. Serial No. 395,092. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. ELLIOTT, a citizen of the United States, residing at Medora, in the county of Jackson, State of Indiana, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in car-couplings, and it has for its objects, among others, to provide a simple, cheap, and efficient and durable coupler by which the cars will be uncoupled automatically in case one or more of them should be turned over.

It has for a further object to provide for the adjustment of the draw-head to couple with cars of different heights.

Another object is to relieve the pin of all strain and place the strain upon the draw-head.

I provide the draw-head with a vertically-adjustable mouth with provision for holding it in its adjusted position, the said movable portion being provided with a lug or other device for the purpose of engaging the link, the pin being arranged to rest upon the link and hold it in a horizontal position. I also provide a pin so constructed and arranged that while it will bear upon the link while the car is in an upright position it will be thrown away from the link in case the car should be upset. I further provide simple means for uncoupling from the side of the car and for holding the coupling-pin elevated when desired.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a central longitudinal vertical section through a draw-head provided with my improvements. Fig. 2 is a vertical longitudinal section taken upon the line $z z$ of Fig. 3, looking in the direction of the arrows in the said figure. Fig. 3 is a top plan. Fig.

4 is a top plan with a portion broken away, showing a different form of link-lifter. Fig. 5 is a detail in side elevation to show the operation of the link-lifter illustrated in Fig. 4.

Like letters of reference indicate like parts throughout the several views in which they occur.

Referring now to the details of the drawings by letter, A designates the draw-head, which is formed at its mouth end with a chamber a , in which is arranged the movable mouth B, which is of substantially the same dimensions as the chamber except in height, which is considerably less than that of the chamber, as seen in Figs. 1 and 2, to provide for the vertical adjustment of the said movable portion. This movable portion is guided in its movements in any suitable manner—as, for instance, by the vertical rods C, held in position in any suitable manner, as by the nuts a' on their lower ends, as seen in Figs. 1 and 2. The movable portion is provided with a mouth to receive the link, and upon the upper face of its lower wall it is formed with a longitudinal lug or rib b , as seen in Fig. 1, the rear end of which terminates in a vertical shoulder c to engage the link, as seen in Fig. 1.

The draw-head and the movable portion are provided with coincident vertical passages d for the coupling-pin C' , a passage-way being made in the lower wall of the draw-head, through which the lower reduced end of the pin may pass, as seen in Fig. 1, a key or pin e being provided to limit the upward movement of the said pin. The coupling-pin is formed at its upper end with a horizontal slot or opening f , the front wall of the pin within the movable portion being inclined from toward the upper end downward and backward, as shown at g , and near its lower end with a notch h , as shown in Fig. 1.

The operation will be readily understood. The coupling-pin is normally in the position in which it is shown in Fig. 1, with its shoulder k resting upon the link l , which is thereby held in a horizontal position, and the strain is not on the coupling-pin but on the lug or rib of the movable portion of the draw-head. If the car should upset, the pin would fall away from the link, being heavier at its upper end. The

movable portion is designed to be adjusted vertically to accommodate itself to cars of different heights by the screw-rod K, tapped through the bottom of the draw-head and acting upon the under side of the said movable portion, as will be readily understood from Fig. 1. In order to lift the coupling-pin when desired, I have provided a link-lifter, one form of which is shown in plan in Fig. 3 and consists of the horizontal rod L, extended at both ends so that it may be actuated from either side of the car, and held in suitable bearings or staples *m* on top of the draw-head in such a manner as to be moved endwise in said bearings. To this rod is connected the longitudinal arm O, the forward end of which is bent laterally, as seen at *o'*, and designed to engage the slot in the upper end of the coupling-pin. An inclined piece R is provided upon the top of the draw-head, over which the arm O rides to cause the rod L to move endwise and disengage the lateral portion from the slot of the pin and allow the latter to drop. In Fig. 4 I have shown substantially the same construction, except that upon the top of the draw-head I provide a block T, on the upper face of which the arm O is designed to be supported to hold the arm and pin elevated.

What I claim as new is—

1. The combination, with the draw-head having a chamber at its mouth end, of a vertically-movable mouth-piece within said chamber and provided with a longitudinal rib upon its lower wall, as and for the purpose specified.

2. The combination, with the draw-head and its vertically-movable mouth-piece having longitudinal rib, of the vertically-movable coupling-pin having a notch and shoulder, as and for the purpose specified.

3. The combination, with the draw-head and the mouth-piece vertically adjustable therein and formed with longitudinal rib with square shoulder, of the vertically-movable coupling-pin resting upon the link and having inclined front wall, notch, and shoulder, substantially as and for the purpose specified.

4. The combination, with the draw-head and a vertically-movable coupling-pin having a slot at its upper end, of an uncoupling-lever designed to engage said slot and a stop on the top of the draw-head to engage the lifter, as and for the purpose specified.

5. The combination, with the draw-head and the vertical coupling-pin having slot at its upper end, of the uncoupling-lever journaled in bearings upon the top of the draw-head and capable of endwise movement and having portion to engage said slot, and the inclined piece upon the top of the draw-head to engage said portion, substantially as and for the purpose specified.

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

JOHN W. ELLIOTT.

Witnesses:

MARSHALL D. ALEXANDER,
LOGAN PECK.