

(No Model.)

2 Sheets—Sheet 1.

H. F. DAILEY & J. POFFENBARGER.
CAR COUPLING.

No. 499,661.

Patented June 13, 1893.

Fig. 1.

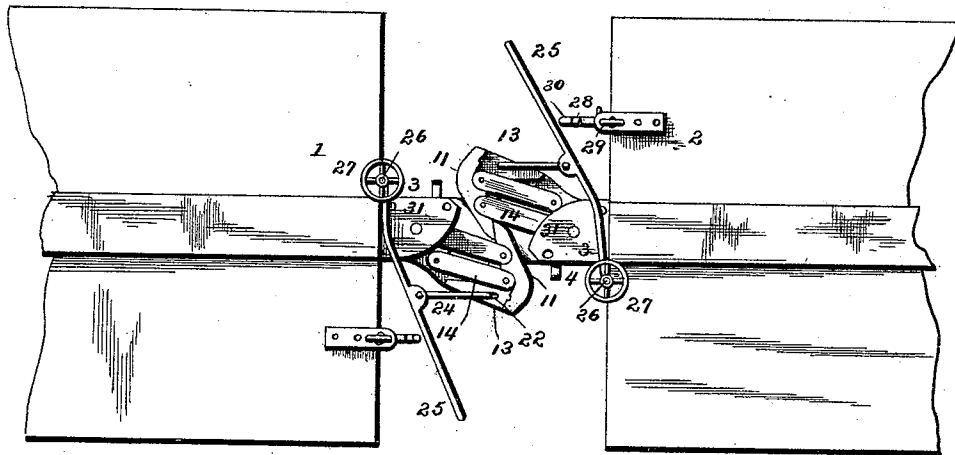
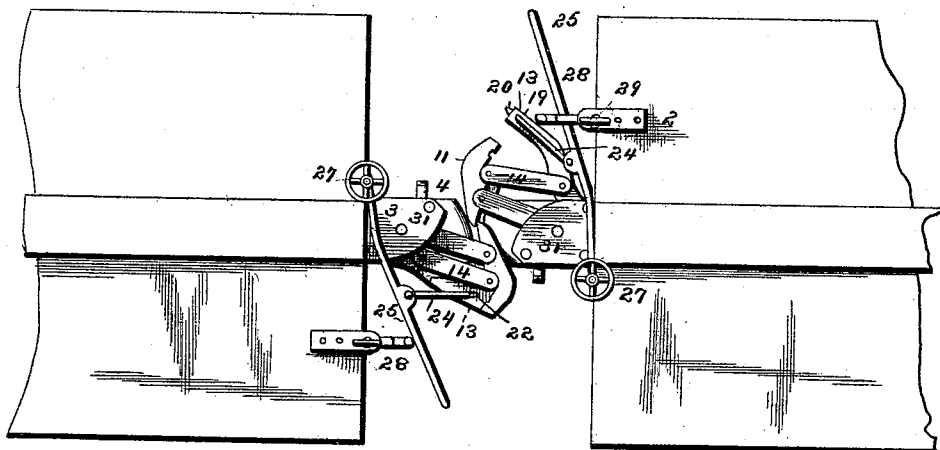


Fig. 2.



Witnesses

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2 Sheets—Sheet 2.

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Fig. 3.

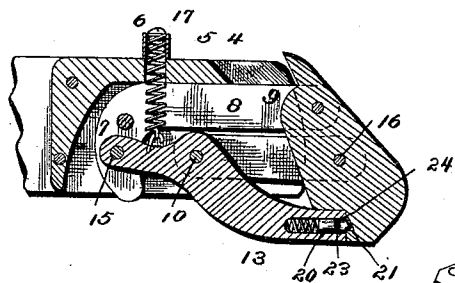


Fig. 5.

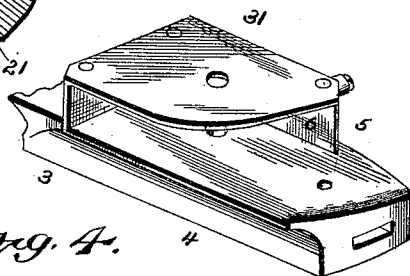
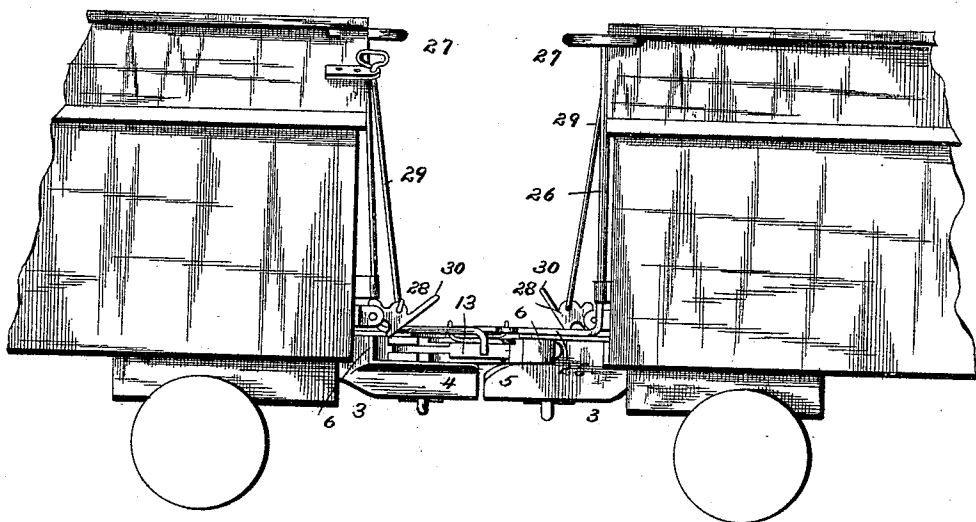


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY F. DAILEY, OF OMAHA, AND JOSIAS POFFENBARGER, OF FORT CALHOUN, NEBRASKA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 499,661, dated June 13, 1893.

Application filed February 4, 1893. Serial No. 460,936. (No model.)

To all whom it may concern:

Be it known that we, HENRY F. DAILEY, of Omaha, in the county of Douglas, and JOSIAS POFFENBARGER, of Fort Calhoun, in the county of Washington, State of Nebraska, have invented certain new and useful Improvements in Car-Couplings; and we 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 appertains to make and use the same.

Our invention relates to improvements in automatic car couplings, and its object is to provide one which may be readily operated from the sides or the top of the car, thereby obviating the necessity of persons going between cars and greatly facilitating the making up of the train.

A further object of our invention is to supply a device of the above class which shall possess superior advantages in point of simplicity of construction as well as inexpensiveness and general efficiency.

A further object of the invention is to supply a simple and efficient device by means of which the cars may be uncoupled while under strain.

The novelty resides in the peculiarities of construction and the combinations, arrangements, and adaptations of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The nature and operation of the improvements will be readily understood by all conversant with such matters from the following explanation and accompanying drawings, which with the figures of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a plan view of our car coupling, showing the position occupied by the jaws when the cars are locked together. Fig. 2 is a plan view of the coupling, showing the position occupied by the jaws when the cars are unlocked. Fig. 3 is a transverse section of one of the jaws. Fig. 4 is a longitudinal elevation of the ends of two box cars with our coupling attached, and Fig. 5 is a perspective view of the drawhead and frame with jaws removed.

Reference being had to the above figures 1 and 2 represent adjacent portions of two ordinary box cars to which are secured twin draw heads and jaws of our improved coupling.

Secured to the ends of the cars 1 and 2 are the projecting ends 3 of the draw heads or bumpers 4, the upper surface of the outwardly extending ends 5 of which are formed into the upwardly extending projection 6.

Revolubly secured to the drawhead or bumper 4, by means of the steel pin 7 are the J or hook-shaped twin bars 8, to the extremities of the straight portions 9 of which is pivoted by means of pivot 10, the jaw 11, the central projection 12 of which passes between and separates the bars 8. Situated between and pivoted to the bars 8 at a point on the opposite side of the pin 7 from the pivot 10, is the locking lever 13. As a direct connection between the jaw 11 and the locking lever 13 we have supplied the twin connecting bars 14 which are pivoted, one on either side of the lever 13 and central projection 12 by means of pivots 15 and 16. By means of the coiled spring 17, one end of which is secured to the lever 13 at a point between the pivots 15 and 18, while its other end is secured to the projection 6, the jaw 11 and locking lever 13 are caused to assume as their normal positions the positions shown in Fig. 3.

In the forward free end 19 of the locking lever 13 is situated the spring pressed catch 20, its projecting end being beveled and adapted to rest in the recess 21 in the jaw 11. Extending through the free end of the locking lever 13 is the rectangular slot 22 through which and the hole 23 in the catch or bolt 20, passes the downwardly projecting end of the rod 24, which has its other end pivoted to the lever 25, the latter being bent at right angles and revolubly secured to the end of the car.

It will be readily seen that when the end 26 of the lever 25 is caused by the wheel 27 which is rigidly secured to its upper end, to move in a direction toward the car to which it is secured, the pin or catch 20 is drawn inward by means of the rod 24, thus releasing the locking lever 13 and causing it to assume the position shown in the right hand coupling in Fig. 2, thereby allowing the jaw 11 to release

itself from the twin jaw of the coupler secured to the other car.

In order to hold the locking lever 13 in an unlocked position we have supplied the gravity catch 28 which is pivoted to the car and operated from the top thereof by means of the connecting rod 29.

It will be readily seen that the cars may be uncoupled by means of either the wheel 27 or lever 25 and the lever may be released from the catch 28 by means of either the rod 29 or projecting arm 30 of the catch. The lever 25 being released, the jaws 11 assume the position shown in Fig. 1 by means of the spring 17.

Secured to the upper surface of the projection 6 is the plate 31 through which the pin 7 passes, its object being to prevent any vertical motion of the two bars described above.

It is obvious that instead of arranging the coupling so that the jaws will swing in a horizontal plane, the coupling may be placed so that the hooks will swing in a vertical plane, but on account of the simplicity of the operating levers and many obvious reasons, the position shown and described is preferred in actual practice. It is also obvious from the above description and accompanying drawings that we have adapted our aforesaid coupler, securing means to perform the additional function of effecting the unlocking of the coupler in case of fracture or derailment of any one of the cars, thereby to cause the separation of the derailed car from the remainder of the train, and as a consequence, permit automatic operation of the air brakes.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination with the draw head 4 of the jaw 11 connected to said draw head by means of the twin J-shaped connecting bars 8, one end of each of which is pivoted to said jaw while the other end is pivoted to said draw head, and locking lever 13 pivoted to said bars 8 and connected to said jaw by means of the twin pivoted bars 14, substantially as described and in the manner and for the purpose set forth.

2. In a car-coupling, the combination, with

the draw head 4 of the jaw 11 connected to said draw head by means of the twin J-shaped connecting bars 8, one end of each of which is pivoted to said jaw while the other end is pivoted to said draw head, and locking lever 13 pivoted to said bars 8 and connected to said jaw by means of the twin pivoted bars 14, and spring 17 connecting said locking lever with said draw head, substantially as described and in the manner and for the purpose set forth.

3. In a car-coupling the combination with the draw head 4 of the jaw 11 connected to said draw head by means of the pivoted, J-shaped connecting bars 8, and locking lever 13 pivoted to said bars 8 and connected to said jaw by means of the pivoted bars 14, and a spring pressed bolt or catch 20, seated in said locking lever, said bolt being adapted to engage with said jaw, substantially as described, and in the manner and for the purpose set forth.

4. In a car-coupling the combination with draw head 4 of jaw 11, locking lever 13, spring pressed bolt 20, and connecting bars 8 and 14, all arranged as described and lever 25 connected with said spring pressed bolt, substantially as and for the purpose set forth.

5. In a car-coupling, the combination with draw head 4 of jaw 11, locking lever 13, spring pressed bolt 20, and connecting bars 8 and 14, all arranged as described, and lever 25 connected with said spring pressed bolt by means of connecting rod 24 and catch 28 pivoted to the car and adapted to engage with lever 25, substantially as and for the purpose set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

HENRY F. DAILEY.

JOSIAS POFFENBARGER.

Witnesses as to the signature of Henry F. Dailey:

MARY FAIRBROTHER,
ROBERT HUNTER,

Witnesses as to the signature of Josias Poffenbarger:

FRED. A. POFFENBARGER,
JAMES WOODS.