

(No Model.)

W. H. KEEN.

CAR COUPLING.

No. 353,565.

Patented Nov. 30, 1886.

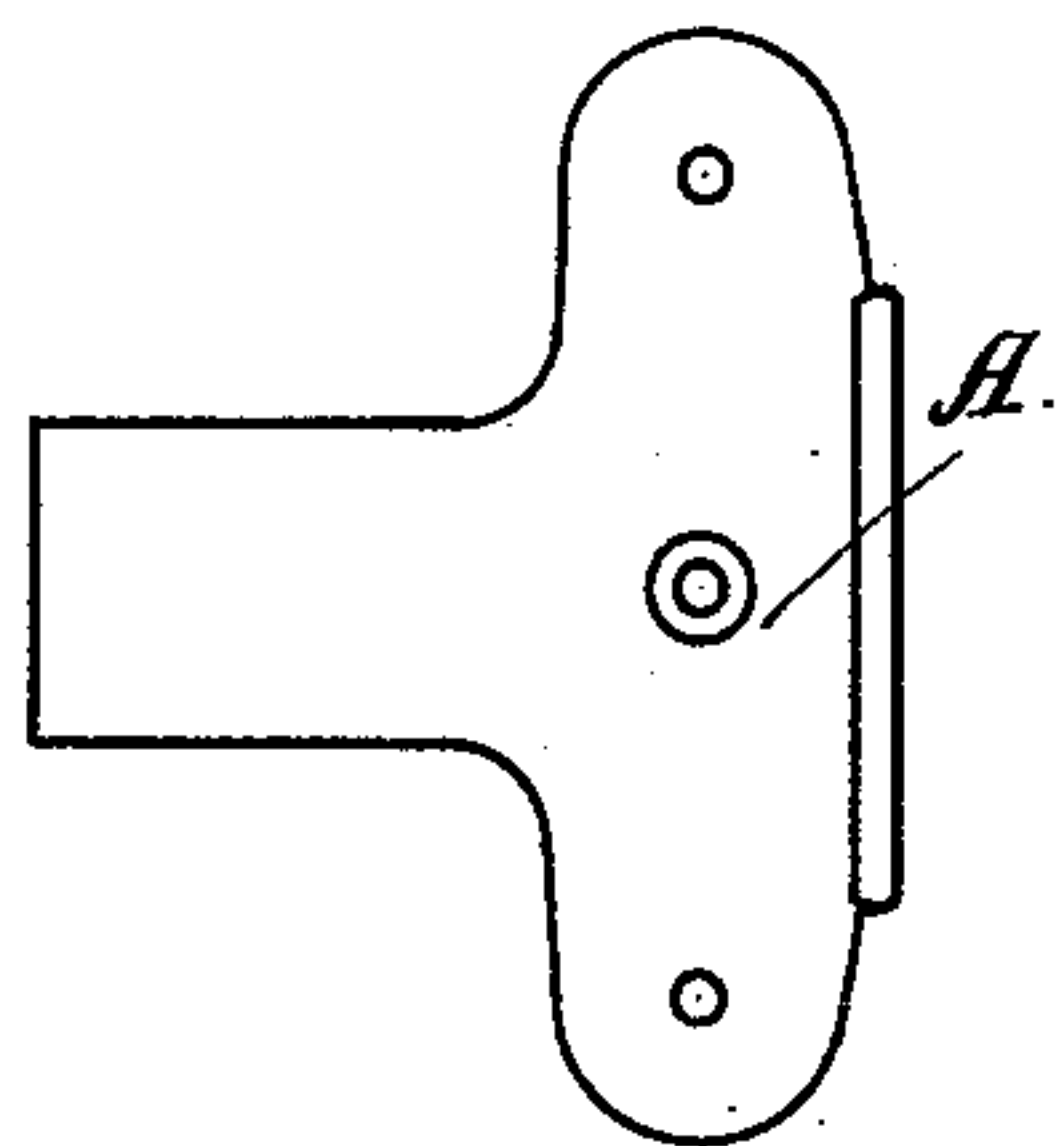
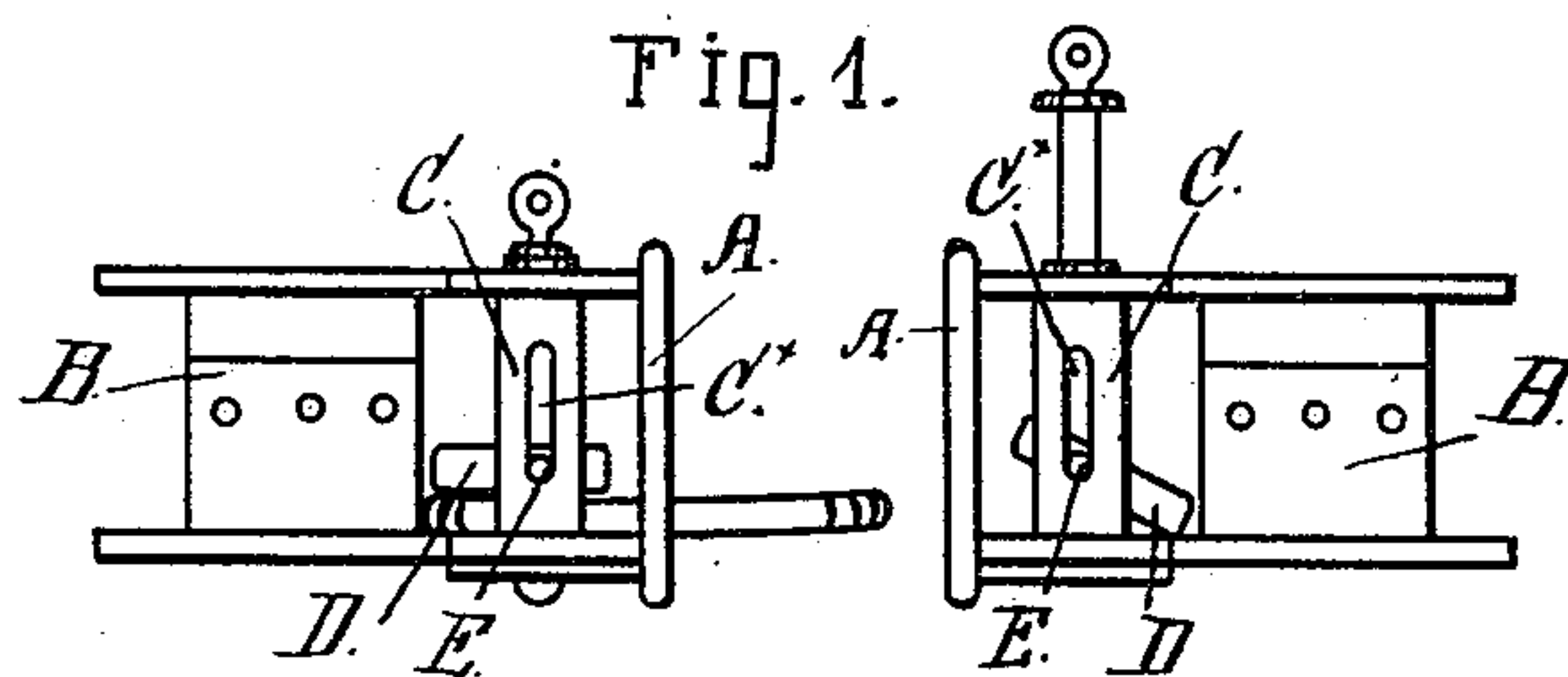


Fig. 3.

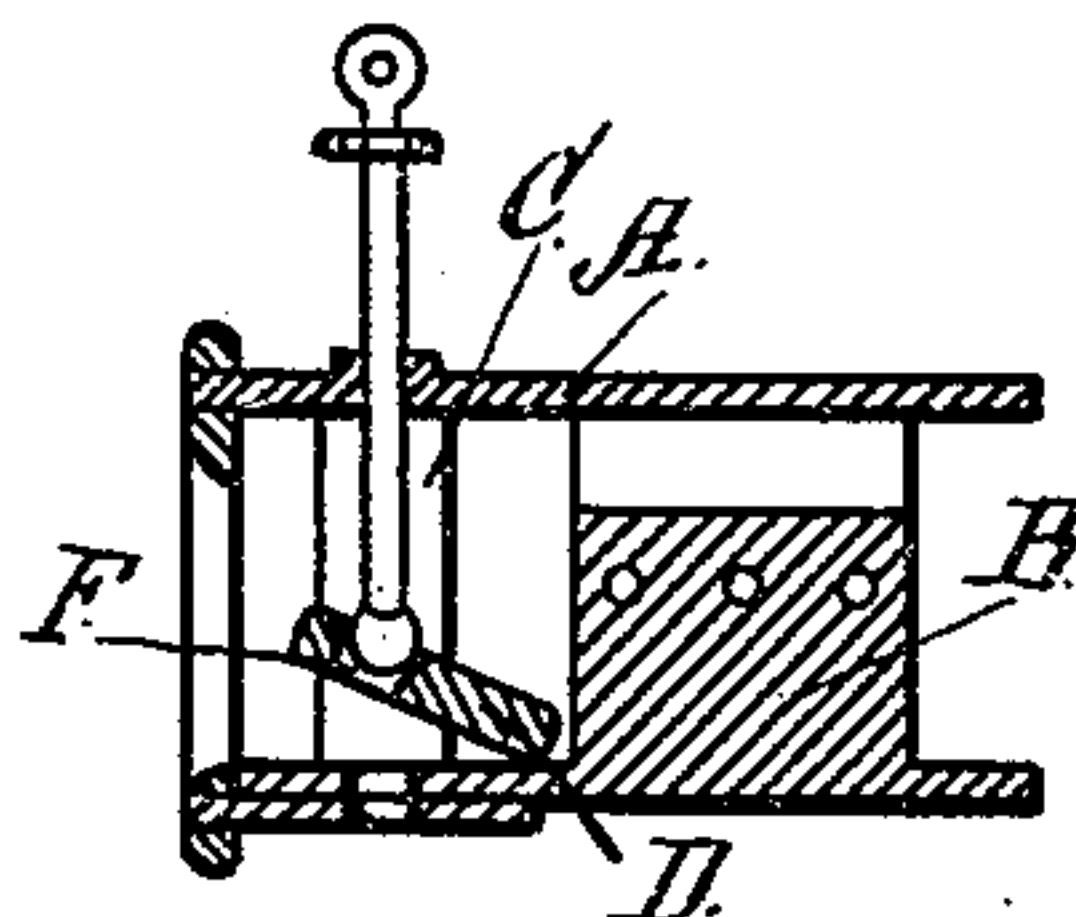


Fig. 2.

Witnesses:

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By

UNITED STATES PATENT OFFICE.

WALTER H. KEEN, OF WOODBRIDGE, CALIFORNIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 353,565, dated November 30, 1886.

Application filed April 28, 1886. Serial No. 200,478. (No model.)

To all whom it may concern:

Be it known that I, WALTER H. KEEN, a citizen of the United States, residing at Woodbridge, in the county of San Joaquin and State of California, have invented certain new and useful Improvements in Automatic Car-Couplings, of which the following is a specification.

My invention relates to certain improvements in that class of link-and-pin couplings for railway-cars in which the disengaged end of the link is held in such a position as to enter its opposite draw-head without guiding.

My invention consists, in addition to the ordinary pin-holding device, of a flat pin-holding inclined plate pivoted in slots within opposite posts or studs of the draw-heads adapted to hold the point of the pin until the thrust of the link dislodges the pin and couples the car, substantially as hereinafter described and pointed out.

Referring to the accompanying drawings, forming a part of this specification, by letters and figures, Figure 1 is a side view of my car-coupling with the pin, in one draw-head down and the pin in the other draw-head partly elevated and resting on the flat plate. Fig. 2 is a longitudinal section through one draw-head, showing the coupling-pin raised and resting on the edge of the opening through the flat pivoted plate. Fig. 3 is a plan or top view of one draw-head.

The draw-head A of my car-coupling requires but little change over the ordinary construction, and, where a longitudinal strengthening-web, B, is found in the chamber of the draw-head, against which the inner end of the link in coupling strikes, and prevents the link from being forced back too far, will answer.

To the upper and lower plates of the draw-head, within a short distance from the mouth, I construct two posts or studs, C C, which are provided with vertical slots C^x. These posts or studs are in an exact line with each other, and the slots of the same length, and wide enough apart to receive a balance-plate, D, of metal, upon the side of which, near the front or outer end, are formed pins E, which move up and down in the vertical slots in the posts or studs C when engaged by the end of the coupling-link.

The balance-plate is so constructed with reference to its pivotal points that the preponderance of metal will be upon the rear or back of the pivotal points, or in such a manner that when the link is removed entirely and coupling-pin raised the inner end of this plate will drop down upon the lower plate of the draw-head and assume the inclined position shown in Figs. 1 and 2, with the lower end of the pin resting on the edge of the pin-hole F, which latter is made in the plate, and be in a position to receive the end of the coupling-link of the opposite draw-head.

When the balance-plate is in the inclined position above described, it will be seen that the pin-hole in the plate is also inclined toward the mouth of the draw-head, and the point or end of the pin will rest upon one side of the pin-hole, in which position it will remain until the balance-plate assumes a horizontal or nearly horizontal position, at which point the pin-holes in the draw-head and the pin-holes of the balance-plate are in a vertical line with each other. In order, however, to insure a more perfect action, the upper face of the balance-plate may be made a little dishing or beveling around the pin-hole, and the dish corrugated or roughened, so as to center and guide the pin, and also prevent the point from slipping too easily into the hole or opening before the balance-plate is raised by the link sufficiently to permit the coupling end of the link to pass in beyond the pin-hole.

When the coupling-link is in position in one draw-head and the coupling-pin down, the inner end of this link will be under the balance-plate and raise it up on its pivotal points and act as a weight, bearing down upon this end of the link and keeping the outer end of the link always in a horizontal, or slightly above the horizontal, position, ready to enter or engage with the opposite draw-head without guiding, as in coupling with ordinary devices, and the end of the link will enter the opposite draw-head, pass under the balance-plate, and lift up the inner end thereof, dislodging the pin from its seat in the side of the beveled hole or opening, and causing it to drop through the pin-hole in the plate and bottom of the draw-head in an automatic manner.

It is evident by this description of a car-coupling that the mouth of the draw-head could be made inclining backward, and the chamber be gradually contracted and the guiding and holding slots for the balance-plate be made in the sides of the draw-head, and thus dispense with the studs or posts and their slots, and also the web, which prevents the inner end of the coupling from extending too far within the draw-head in the act of coupling.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

15 In a car-coupling, the combination, with the

draw-head and coupling-pin, of the upright posts C C, secured to the upper and lower plates of said draw-head, and provided with vertical slots C^x, and the oscillating balance-plate D, having horizontally-projecting pins 20 E E, which enter the slots C^x, and provided also with a bevel-sided central perforation for holding and receiving the coupling-pin, substantially as shown and described.

In testimony that I claim the foregoing I 25 have hereunto set my hand and seal.

WALTER H. KEEN. [L. S.]

Witnesses:

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JOHN B. LEWIS.