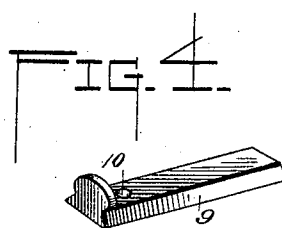
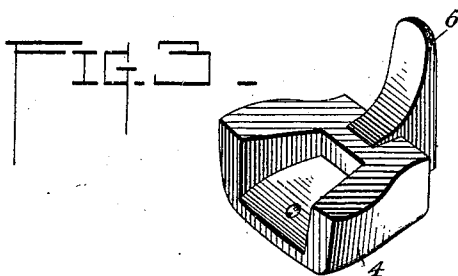
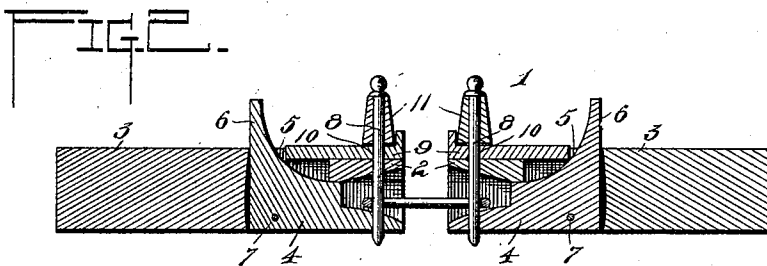
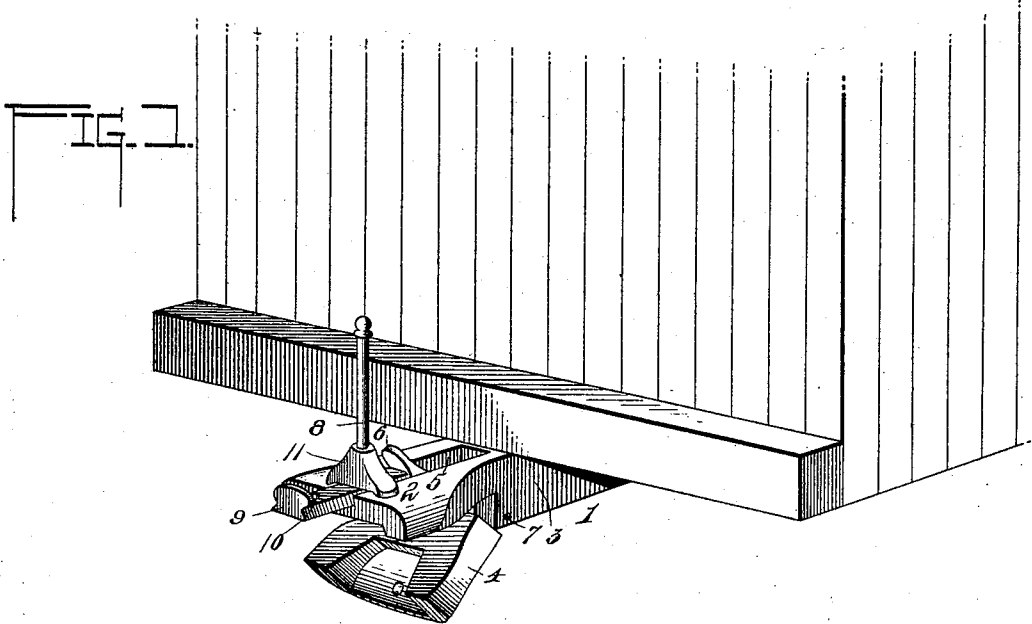


(No Model.)

J. P. JOHNSON.
CAR COUPLING.

No. 576,851.

Patented Feb. 9, 1897.



Inventor

James P. Johnson.

Witnesses

A. J. La Vau.

By *his* Attorneys,

J. F. F. Riley

Chas. Snow & Co.

UNITED STATES PATENT OFFICE.

JAMES P. JOHNSON, OF VALDOSTA, GEORGIA, ASSIGNOR OF ONE-HALF TO B. F. WHITTINGTON, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 576,851, dated February 9, 1897.

Application filed November 13, 1896. Serial No. 611,951. (No model.)

To all whom it may concern:

Be it known that I, JAMES P. JOHNSON, a citizen of the United States, residing at Valdosta, in the county of Lowndes and State of Georgia, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

10 The object of the present invention is to improve the construction of car-couplings, and to provide a simple, inexpensive, and efficient one capable of coupling automatically and of being readily uncoupled without going between cars.

15 A further object of the invention is to provide a car-coupling which will be adapted to couple on curves and which will enable the cars of a train to be successively started similar to the ordinary pin-and-link car-coupling in order to prevent the entire weight of a train being thrown upon an engine at the same time in ascending a grade or in starting the train.

25 Another object of the invention is to provide a car-coupling which will be adapted for coupling the cars having draw-heads at different elevations and which will readily receive and guide a link into it and obviate the necessity of guiding the link by hand.

30 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

35 In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention and shown applied to a car, the parts being arranged for automatic coupling. Fig. 2 is a longitudinal sectional view showing two draw-heads uncoupled. Fig. 3 is a detail perspective view of the lower section of the draw-head. Fig. 4 is a detail view of the slide.

45 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a draw-head consisting of a rigid upper section 2, which is formed integral with a shank or draw-bar 3, and a movable lower section 4, which is hinged to the

upper section of the draw-head and which when the parts are set for automatic coupling, as illustrated in Fig. 1 of the accompanying drawings, is adapted to assume an inclined position to form a wide mouth to receive a link and guide the same into the draw-head. The upper section 2 of the draw-head is provided with a longitudinal slot or opening 5, and the adjacent portion of the draw-bar or shank 3 is bifurcated to receive an arm 6 of the movable section 4.

The arm 6 extends rearward from the back of the lower section to form a heel, and it extends upward through the opening 5 of the upper section. It is pivoted at the heel by a transverse pin 7, which passes through the front end of the shank or draw-bar at the bottom thereof, and when the lower section swings downward to an inclined position the arm 6 moves forward in the opening 5 of the upper section.

The draw-head is provided with a coupling-pin perforation, which extends through the upper and lower sections, and a coupling-pin 75 8 is supported in an elevated position for automatic coupling, as shown in Fig. 1, by a slide 9, which is arranged in suitable longitudinal ways at the top of the draw-head. The ways are formed by a longitudinal recess 80 and grooves arranged at the side walls of the recess, and the slide, which is provided with a perforation 10 to register with the coupling-pin perforation, is moved outward when the parts are set for automatic coupling to 85 carry such perforation away from the coupling-pin perforation of the draw-head. The coupling-pin, when in an elevated position, is supported by a guide 11, and it rests upon an imperforate portion of the slide. When 90 two draw-heads come together in coupling, the extended slide of one draw-head is engaged by the other draw-head and forced inward, carrying with it the arm 6 of the lower section of the draw-head, which is swung upward to a horizontal position. The inner end 95 of the slide is in contact with the arm 6, and when the perforation 10 registers with the coupling-pin perforation the pin falls and engages the link.

When the lower section of the draw-head is in an inclined position, it forms a wide

mouth and is adapted to receive links of draw-heads at different elevations, and when it swings upward or closes it carries the link with it.

5 The guide 11 consists of a hollow post which straddles the ways of the draw-head, and the slide is provided at its front end with an outwardly-extending flange which abuts against the guide when the lower section is in a horizontal position.

10 The car-coupling is adapted to couple on curves, and it permits the necessary longitudinal movement of a link to enable the cars of a train to be successively started, so that 15 the entire weight of a train will not be thrown on an engine at the same time in starting it or when the train is ascending a grade. Should a car become derailed or overturned, the link would twist sufficiently to break the 20 coupling-pin, so that the other cars of a train will not be carried with the derailed car.

It will be seen that the car-coupling is simple and comparatively inexpensive in construction, that it is strong and durable, and 25 that it is capable of guiding a link into it and of coupling automatically without going between cars.

What I claim is—

1. In a car-coupling, the combination of a 30 draw-head comprising a shank or draw-bar, an upper section rigid with the same, a hinged lower section adapted to swing downward to an inclined position for guiding a link into the draw-head, and a movable pin-support 35 engaging the rear portion of the hinged section and adapted to swing the same upward to its closed position, said pin-support being arranged to project beyond the draw-head

when the parts are set for automatic coupling and adapted to be engaged and moved inward by another draw-head, whereby the pin 40 is caused to fall and the lower hinged section of the draw-head is returned to its closed position, substantially as described.

2. In a car-coupling, the combination of a 45 draw-head comprising a shank or draw-bar, a rigid upper section, a hinged lower section provided with an upwardly-extending arm, and a slide mounted on the upper section of the draw-head, arranged to engage the arm 50 of the lower section and adapted when drawn outward to form a support for a coupling-pin, whereby when it is moved inward, the pin will be caused to fall and the lower section 55 will be returned to its closed position, substantially as described.

3. In a car-coupling, the combination of a draw-head comprising a shank or draw-bar, a rigid upper section having a longitudinal opening and provided with longitudinal ways, 60 a hinged lower section having an upwardly-extending arm arranged in said opening, a slide mounted in the said ways, engaging the said arm and provided with a perforation adapted to register with the coupling-pin perforation of the draw-head, and a guide, mounted 65 on the draw-head and adapted to receive a coupling-pin, substantially as and for the purpose described.

In testimony that I claim the foregoing as 70 my own I have hereto affixed my signature in the presence of two witnesses.

JAMES P. JOHNSON.

Witnesses:

O. M. SMITH,

R. T. MYDDELTON.