

(No Model.)

B. F. STONE.
CAR COUPLING.

No. 485,512.

Patented Nov. 1, 1892.

Fig. 1.

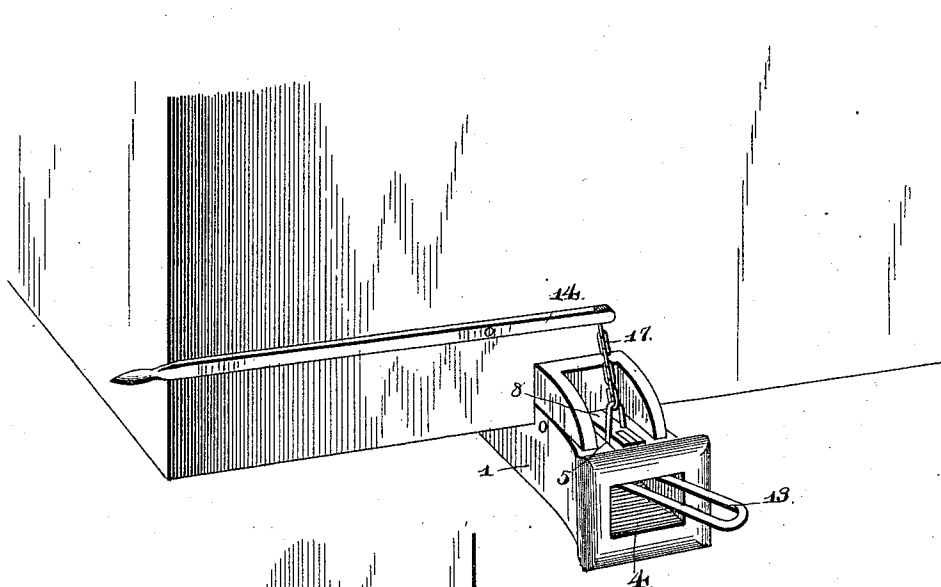
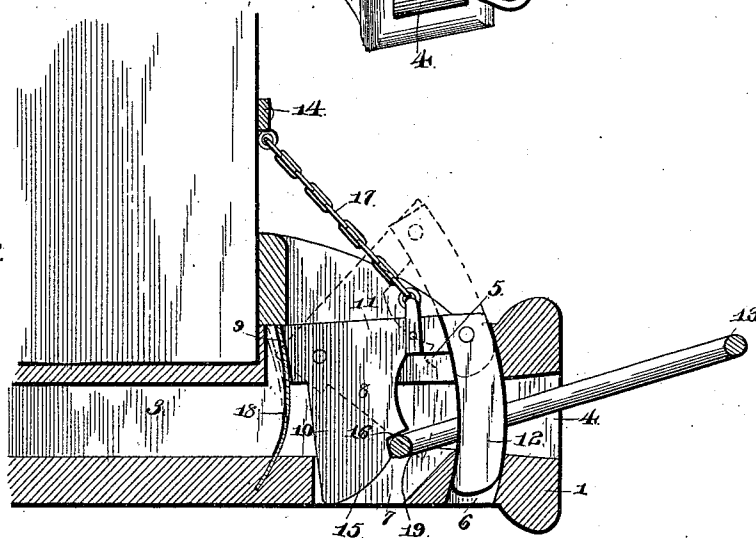


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

BENJAMIN FRANKLIN STONE, OF EAST LAS VEGAS, TERRITORY OF NEW MEXICO, ASSIGNOR OF ONE-HALF TO MADISON M. MILLIGAN, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 485,512, dated November 1, 1892.

Application filed April 15, 1892. Serial No. 429,349. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN FRANKLIN STONE, a citizen of the United States, residing at East Las Vegas, in the county of San Miguel and Territory of New Mexico, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to simplify and improve the construction of pin-and-link car-couplings and to enable the same to automatically couple in cars having draw-heads arranged at different heights.

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.

In the drawings, Figure 1 is a perspective view of a portion of a car provided with a car-coupling constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view.

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

1 designates a draw-head having a longitudinal opening 3 with a flaring mouth 4 and provided in its top with a longitudinal slot 5, communicating with the opening 3 and provided in its bottom with a pin-opening 6 and a lever-opening 7. A bell-crank lever 8 is arranged in the longitudinal opening and the slot of the draw-head. It is fulcrumed at its angle and provided thereat with a heel 9, and it has its vertical arm 10 arranged in the opening 7 of the draw-head. The horizontal arm 11 has its front end pivoted to the upper end of a pin 12, which is adapted to move vertically in the longitudinal opening, the opening 6, and the slot in the top of the draw-head and to be raised and lowered to engage and disengage a link 13. The bell-crank lever 8 is operated by a lever 14. Its vertical arm is beveled at its lower end at 15, and it is provided with a notch forming a shoulder 16, which is adapted to engage the inner end of the link 13 and to bear that end down to raise the front end of the link in a vertical position, as

shown in the second figure of the drawings. The hand-lever 14 is connected with a horizontal arm of the bell-crank lever by a chain 17. The bell-crank lever is held in an elevated position, as shown in dotted lines in Fig. 2, by a spring 18, which is arranged at the inner end of the longitudinal opening and the slot and which engages the heel 9 of the bell-crank lever. The spring also holds the bell-crank lever down, as shown in Fig. 2 of the drawings, when the cars are coupled, and it holds the shoulder 16 in engagement with the inner end of the link to elevate the outer end of the link, the bottom of the longitudinal opening of the draw-head being beveled or inclined back of the mouth at 19 to form a rest for the said inner end of the link. The height of the outer end of the link may be adjusted to suit the height of the draw-head of the car to be coupled by means of the hand-lever 14, and by raising the bell-crank lever the shoulder is raised, allowing the outer end of the link to drop.

It will be seen that the coupling is simple and comparatively inexpensive in construction and that by it cars may be readily coupled, even though their draw-heads be at different heights. It will also be apparent that the car-coupling may be readily used in connection with cars having the ordinary pin-and-link coupling.

When the pin is lowered for coupling, its lower end is arranged in the pin-opening 5 of the draw-head and is securely braced and prevented from oscillating. The pin is caused to descend when the cars come together for coupling by a link striking the beveled portion of the vertical arm and carrying the arm rearward.

What I claim is—

1. In a car-coupling, the combination, with a link, of a draw-head having a longitudinal opening and provided in its top with a slot and having the lever and pin openings in its bottom, a bell-crank lever mounted in the draw-head and fulcrumed at its angle and provided thereat with a heel adapted to depress the inner end of the link to elevate the outer end of the same, a pin pivoted to the front end of the lever, and a spring engaging

the heel and holding the lever in engagement with the link, substantially as described.

2. In a car-coupling, the combination, with a link, of a draw-head having a longitudinal opening and provided with an inclined face at the bottom of the same, a bell-crank lever fulcrumed in the draw-head and having its vertical arm beveled and provided with a shoulder adapted to engage the link to depress the inner end of the latter and elevate the outer end thereof, a spring engaging the lever, and a pin connected to the lever, substantially as described.

3. In a car-coupling, the combination, with a link, of a draw-head having a longitudinal opening and provided with an inclined face

at the bottom of the same, a bell-crank lever fulcrumed in the draw-head and having its vertical arm beveled and provided with a shoulder adapted to engage the link, a spring engaging the lever, and means for lifting the bell-crank lever, whereby the outer end of the link is adjusted vertically, substantially as described.

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

BENJAMIN FRANKLIN STONE.

Witnesses:

M. J. HINTON,

W. B. MOREBERRY.