(No Model.)

H. CHRISTIE.

CAR COUPLING.

No. 539,794. Patented May 28, 1895.

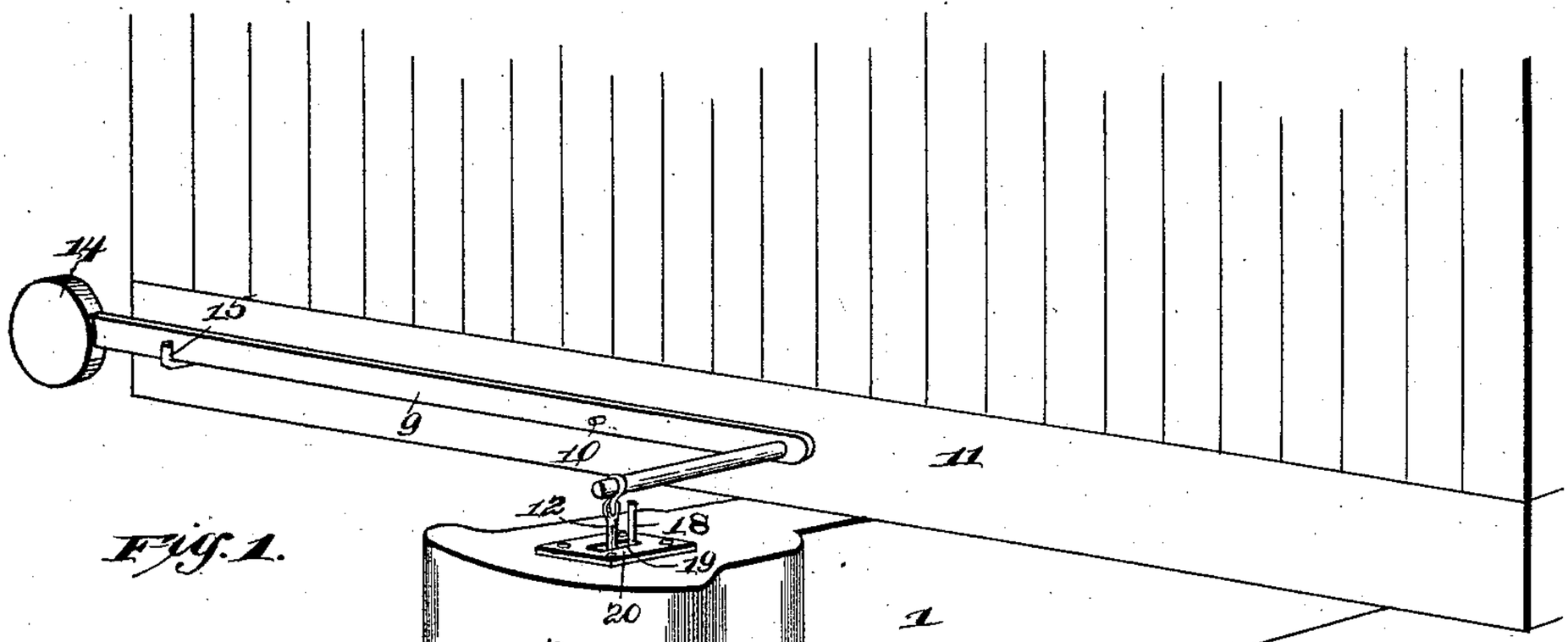

Fig. 1.

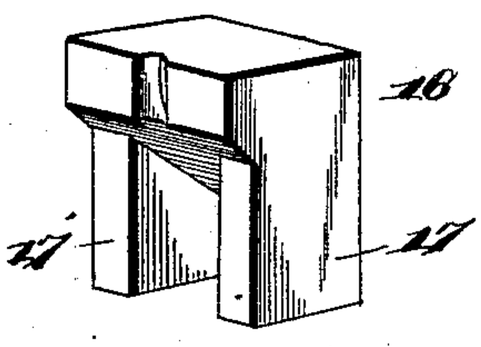

Fig. 4.

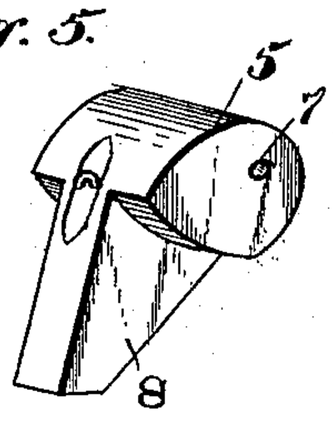

Fig. 5.

Fig. 2.

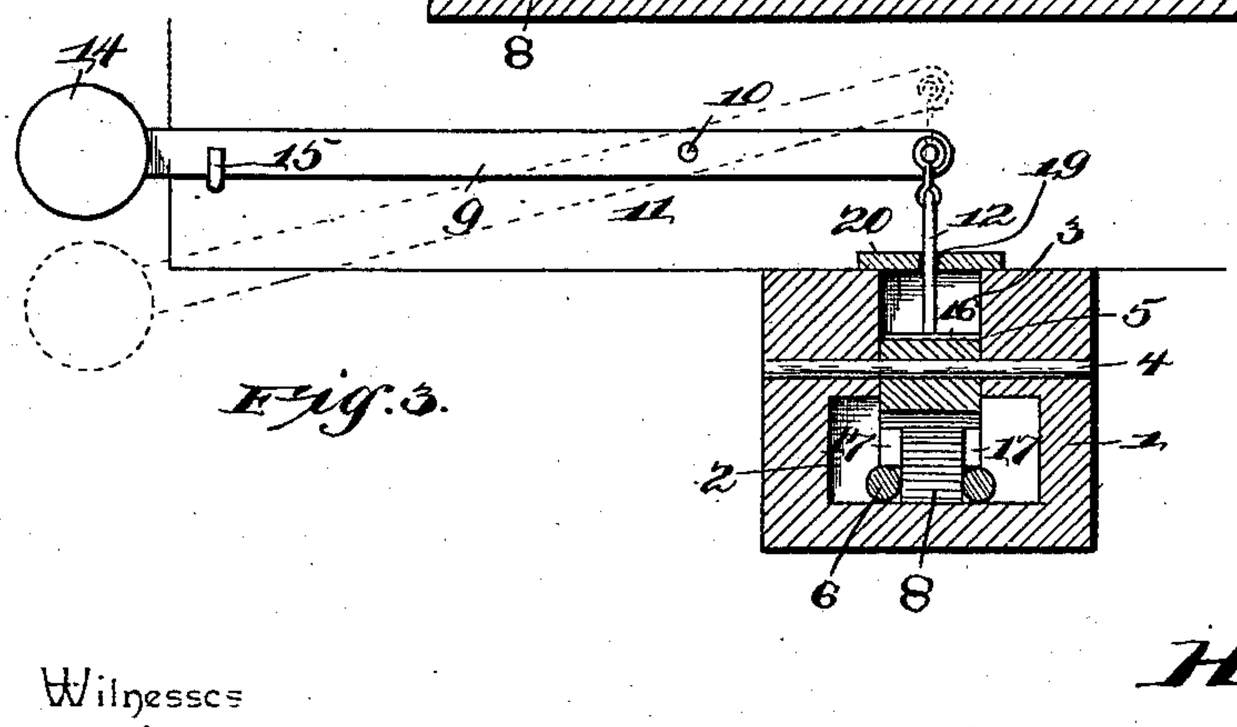

Fig. 3.

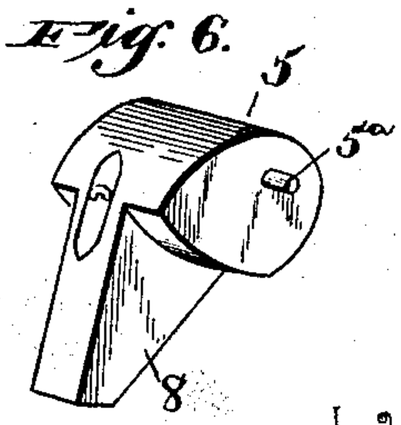

Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

HUGH CHRISTIE, OF ASPEN, COLORADO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 539,794, dated May 28, 1895.

Application filed August 2, 1894. Serial No. 519,295. (No model.)

To all whom it may concern:

Be it known that I, HUGH CHRISTIE, a citizen of the United States, residing at Aspen, in the county of Pitkin and State of Colorado, 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 improve the construction of car couplings, and to provide a simple and inexpensive one, which will be adapted to be employed in connection with the ordinary construction of link, and which will be capable of coupling automatically, and of being conveniently uncoupled without necessitating a person going between cars.

A further object of the invention is to provide means for holding a link in proper position for guiding it into the mouth of a draw-head, to avoid performing such operation by hand.

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 car-coupling constructed in accordance with this invention. Fig. 2 is a central longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the link holder or guider. Fig. 5 is a detail perspective view of the swinging catch. Fig. 6 is a detail view of a swinging catch, showing another manner of hinging the same.

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

1 designates a draw-head having a longitudinal link opening or cavity 2, and provided at its top with an opening 3, and having pivoted at the front end thereof by a transverse pin 4, the upper end of a depending swinging catch 5, adapted to engage a link 6. The swinging catch 5 engages the link 6, in a manner similar to the ordinary coupling pin. It is provided at its top with an elongated opening 7; and the latter receives the transverse pivot pin 4, and permits the catch to bear against the front wall of the opening 3 to relieve the transverse pin 4 of strain. The lower portion 8 of the catch is reduced, and it is adapted to bear against the bottom of the draw-head. When the swinging catch is down against the bottom of the draw-head, it is in position for automatic coupling, and the link entering the draw-head will lift the swinging catch, and pass beneath, and be engaged by the same.

The operation of uncoupling is performed by a weighted lever 9, fulcrumed on a suitable support 10 of a car 11, and having its inner end loosely connected with the swinging catch by a connecting rod 12. The outer end of the operating lever 9 is provided with a weight 14, and when the outer end of the lever is free to fall, it will elevate the swinging catch, and release the link 6 for uncoupling. The operating lever, while the parts are coupled, is supported in an elevated position, as illustrated in Fig. 1 of the accompanying drawings, by means of a hook 15, to cause the swinging catch to rest against the bottom of the draw-head. When in this position, the catch is adapted for automatic coupling; but as soon as the lever is disengaged from the hook, it will swing the catch upward.

The lever 9 is designed to extend to within a short distance of the adjacent side of the car, in order to be within easy reach of the operator, to avoid going between cars. An operating lever may, if desired, be arranged at each side of the car; and any suitable means may be employed for enabling the operation of uncoupling to be performed from the top of the car.

A link guider 16 is slidingly mounted in the draw-head, and is located in the rear portion of the opening 3, and its lower portion 17 is bifurcated to straddle the reduced portion of the swinging catch. The link guider is of sufficient weight to hold the link, upon which it is designed to rest, in a horizontal position for guiding it into the mouth of a draw-head; and it is provided with an upward extending rod 18, which, with the connecting link 12, passes through a slot 19 of a plate 20 detachably secured to the top of the draw-head and covering the opening 3. Any suitable means may be employed for lifting the rod 18 to allow the link to be depressed when necessary.

It will be seen that the car coupling is simple and comparatively inexpensive in construction, and positive and reliable in operation, and that it is capable of automatic coupling, and convenient uncoupling, without necessitating a person going between cars. It will also be apparent that the link is held in a horizontal position for guiding it into the mouth of a draw-head; and the link guider is operated automatically by the swinging catch, which, when it is raised by a link entering the draw-head, swings upward rearwardly and lifts the link guider. As soon as the catch drops, by reason of the link passing it, the link holder and guider will fall, and bear upon the upper face of the link.

Instead of employing a pivot pin for hinging the swinging catch, integral journals 5^a may be employed, in which case seats will be provided in the draw-head for the same.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a car coupling, the combination with a car, of a draw-head, a swinging catch mounted therein, a transversely disposed lever fulcrumed intermediate of its ends on the car and connected at its inner end with the swinging catch, and having its outer portion weighted and adapted when free to swing the catch upward out of engagement with a link, and a support mounted on the car for holding the weighted portion of the lever elevated for maintaining the catch in engagement with the link, substantially as and for the purpose described.

2. In a car coupling, the combination of a draw-head, a swinging catch mounted therein, and a vertically movable link holder and guider slidingly mounted in the draw-head and arranged in rear of the catch and bifurcated and straddling the same, and having an inclined face in position to be engaged by and swung upward by the catch, whereby it is automatic in its operation, 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.

HUGH CHRISTIE.

Witnesses:

THOMAS LATTA,

E. L. MARSY.