(No Model.)

H. C. MORTON.

CAR COUPLING.

No. 534,905. Patented Feb. 26, 1895.

Fig. 1

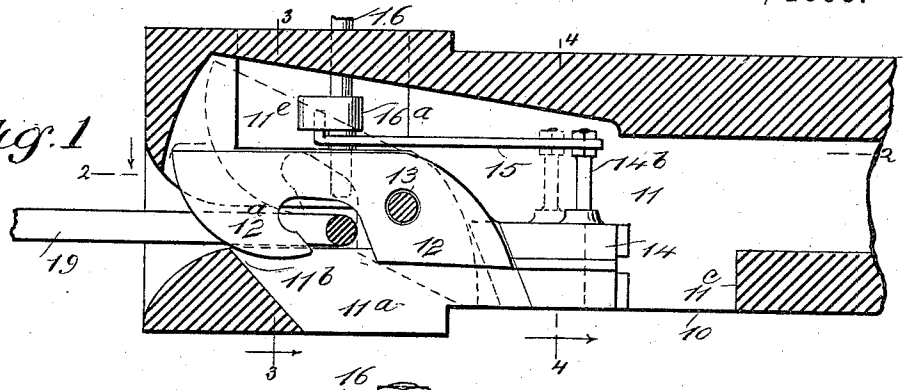


Fig. 2

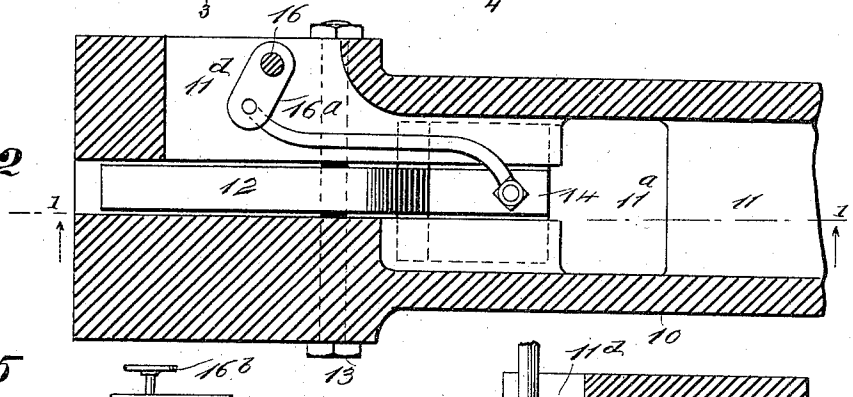
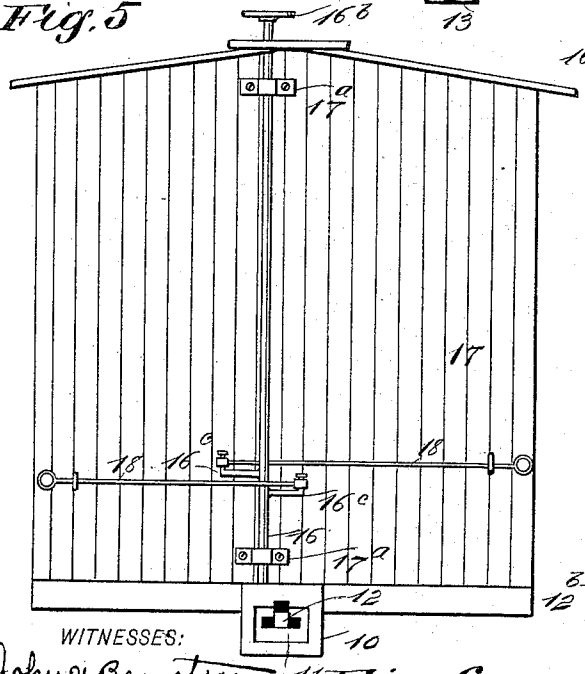


Fig. 5



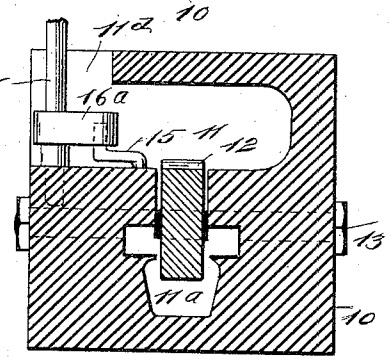


Fig. 3

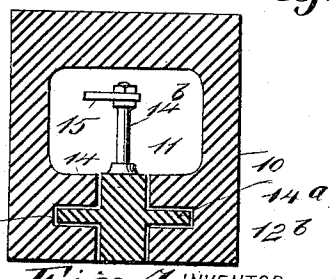


Fig. 4

WITNESSES:

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Fig. 6.

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HENRY CLAY MORTON, OF MINT HILL, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 534,905, dated February 26, 1895.

Application filed May 10, 1894. Serial No. 510,792. (No model.)

To all whom it may concern:

Be it known that I, HENRY CLAY MORTON, of Mint Hill, in the county of Osage and State of Missouri, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

My invention relates to an improved car coupling of the automatic type, and has for its object to produce a self coupling device, which embodies novel, simple features of construction that adapt it for a reliable connection with another car coupling of the same character, and which affords convenient and safe means for a release of two engaged couplings on cars, when operated from either side or the roof of either of said cars.

To these ends my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views shown.

Figure 1 is a sectional side view of the improved car coupling on the line 1—1, in Fig. 2. Fig. 2 is a sectional plan view on the line 2—2 in Fig. 1. Fig. 3 is a transverse sectional view on the line 3—3 in Fig. 1. Fig. 4 is a transverse sectional view on the line 4—4 in Fig. 1. Fig. 5 is a front end view of the device shown applied to a car body and frame; and Fig. 6 is a plan view of a coupling link.

The drawhead 10 of the improved car coupling is preferably cast into form from a suitable metal and is given an elongated substantially rectangular form.

A chamber 11 is formed within the drawhead, and extends a proper distance from the front end of the latter, said recess being in the form of an inverted "T" forwardly, the upright member of which is designed to receive the loosely fitted latching hook 12, that at its rear end enters an enlarged rear portion of the chamber, these cross sectional conformations of the latter being respectively shown in Figs. 3 and 4.

There is a downward extension 11^a of the chamber 11, produced between the points 11^b and 11^c, which cuts through the lower wall of the drawhead at its transverse center for accommodation of the latching hook 12, the latter being parallel on the sides and formed edgewise as clearly shown in Fig. 1, having the hook nose 12^a, formed on its lower forward edge portion, that is convex curved as shown, to adapt it for the engagement with the ordinary elongated coupling link shown in Fig. 6.

The latching hook 12 is pivoted at a correct distance from and nearer its rear end, by a transverse bolt 13, said rear end portion having its edge convexly rounded to receive the impinge of the slide block 14, that is arranged to longitudinally reciprocate in guide grooves formed in the drawhead as shown at 12^b, in Fig. 4, as said grooves lie in the same horizontal plane and have such dimensions as will adapt them to receive the loosely fitted wings 14^a of the slide block 14.

A lateral extension of the chamber 11 is formed on one side of the drawhead, as at 11^d, and said chamber is also vertically enlarged at 11^e to permit a correct rocking movement of the latching hook 12, as indicated by dotted lines in Fig. 1.

The slide block 14 has a portion centrally formed between its parallel wings 14^a, and from this part a post 14^b vertically projects, to the upper end of which post the rear end of the horizontal connecting bar 15 is loosely secured. The bar 15 has a pivotal connection at the front end with an arm 16^a, that is secured on the lower portion of the vertical shaft 16, which has its lower end loosely seated in a socket formed for its reception in the bottom wall of the lateral chamber extension 11^d, as shown in Figs. 2 and 3, the shaft 16 being upwardly extended to the roof of the car body, such as 17, and thereon loosely sustained by clip plates 17^a, or other means, so that the hand wheel 16^b, or if preferred a crank handle, that is secured on the upper end of the shaft, may be conveniently manipulated from the top of the car body.

There are two crank arms 16^c formed on or secured to the vertical shaft 16 at a proper distance from its lower end, which arms project in opposite directions and on their outer ends the pull bars 18 are loosely attached, these bars being projected toward the sides of the car body and loosely sustained in horizontal planes and provided at their outer ends with handles for their easy sliding movement.

In Fig. 6 an ordinary coupling link 19 is

shown and this is used in connecting two car couplings of the improved construction. To couple two cars having the improvement secured in position on their ends, the link 19 is inserted in the front end of the draw-head by sliding it into the inverted T shaped chamber 11^a as shown in Fig. 1, the front corner of the chamber recess being flared to permit this to be readily effected. The introduction of the link will lift the latching hook 12, which will by its gravity fall and interlock with the link, and the link will be horizontally supported on the bottom wall of the draw-head chamber at its front, and lie projected in advance of the draw-head 10 for an introduction within the front end of the coupling it is to engage. The coupled engagement of two cars when the link 19 is sustained in one draw-head as stated, is automatically effected by simply moving the cars toward each other which will cause the latching hook 12, of the approaching coupling to slide upon and over the end of the coupling link, and drop by gravity into an interlocked condition.

When it is necessary to release two cars that are connected by the improved couplings, the operator manipulates either of the pull bars 18, so as to move the one operated in an outward direction, which will turn the shaft 16, so as to slide the block 14 forwardly, and the block as it impinges on the rear end of the latching hook 12, will cause the front end of the latter to rise upwardly into the position indicated by dotted lines in Fig. 1, which will release the link 19. A manipulation of the hand wheel 16^b, in a like manner effects the same result.

It is claimed for this improved car coupling that it is simple and strong, has few working parts, the parts are not liable to get out of working order, and the coupling will automatically connect cars having the improvement, and afford safe means for the speedy detachment of the cars, either from their sides or roofs, as has been explained.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with a draw-head having a chamber therein, and a latching hook pivoted in the chamber, of a horizontal slide block reciprocal in said chamber and arranged to press the rear end of the hook downwardly, when forwardly slid and means for moving said block, substantially as described.

2. The combination with a draw-head having a chamber of inverted "T" form at its front, a latching hook pivoted in the chamber, having its forwardly rounded hook end at the front and the hook portion depending therefrom, a slide block longitudinally movable in the chamber at the rear end of the latching hook and impinging thereon, and means for moving the slide block from the sides or roof of a car, substantially as described.

3. The combination with an elongated and internally chambered draw-head, the chamber being of inverted T-form at the front and laterally extended in rear of said T-shaped portion, and a bar having a forward depending hook and a convex curved front edge on said hook, which bar is pivoted in the T-shaped recess near its rear end, of a slide block having lateral wings loosely engaging grooves in the drawhead behind the hook bar, on which bar said block impinges, and a device adapted for manipulation from the sides or roof of a car, and loosely connected to the slide block, substantially as described.

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Witnesses:
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