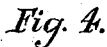
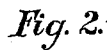


C. T. THOMPSON.
CAR COUPLING.

Patented Aug. 28, 1894.



S. A. Kemmer
Geo F Long

By his Attorney

A. W. Taylor

UNITED STATES PATENT OFFICE.

CROZIER T. THOMPSON, OF SALT LAKE CITY, UTAH TERRITORY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 525,062, dated August 28, 1894.

Application filed December 28, 1893. Serial No. 495,023. (No model.)

To all whom it may concern:

Be it known that I, CROZIER T. THOMPSON, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and Territory of Utah, have invented certain useful Improvements in Car-Couplings; and I do declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in car couplings and it has relation more particularly to that class of car couplings which are automatic in operation, wherein the draw-head is provided with a movable iron, or other metal block which sustains the link in a horizontal position to enter a companion draw-head or supports the pin preparatory to coupling in such a manner that the link entering the draw-head moves the support and the pin drops into the link whichever may be required.

My invention has for its object: first, to improve the means whereby the coupling pin is supported in position to be automatically dropped into the link; secondly, to improve the means whereby the link will be held in an approximately horizontal position in order to insure its entry into the mouth of the companion draw-head when the cars are brought together to be coupled. I attain these objects by the various novel features of construction hereinafter described, illustrated in the accompanying drawings and particularly pointed out in the claims at the end of this specification.

Figure 1, is a vertical longitudinal section view through two (2) draw-heads, one showing the pin through the link and the link sustained in a horizontal position, and the other illustrating the pin raised and supported in a position to enter the link when the draw-heads are brought together. Fig. 2, is a longitudinal sectional view taken at right angles to Fig. 1, and looking from the top. Fig. 3, is a perspective view of the link for connecting the movable pin-support and link-holder with the bottom of the draw-head. Fig. 4, is

a perspective view of the side and back of the pin-support and link-holder and Fig. 5, is a view of the front and side of the same. Fig. 6, is a perspective view of the inclined rest or base of the pin-support and link-holder block.

Similar letters refer to similar parts throughout the several views.

Referring by letter to said drawings —A— and —A' denote the draw-heads of the car. These draw-heads may be of any desired size or shape so long as they are capable of having my invention applied thereto. So also the coupling pins —B— and B' and the link —C— may be of any usual or suitable construction. Each of the draw-heads is formed as a hollow casting with the usual expanded mouth —a— to receive the link —C— and each draw-head is provided with the usual hole a' for its coupling pin.

In applying to the draw-heads my improved construction or pin-support and link-holder I prefer to form the draw-head with an opening in the bottom to the rear of the pin aperture, in which is supported the inclined base D (which is of a form substantially as shown in Fig. 6). The base is secured in position by being provided with a shoulder b across the rear end and with another b' across its front end which fit into corresponding shoulders in the bottom of the draw-head allowing the base to be easily placed and taken out. My purpose in having this opening in the bottom of the draw-head and fitted with a movable base is to provide a simple means for inserting the pin-supporter and link-holder block E in the cavity of the draw-head without enlarging the mouth of the draw-head for the purpose.

The top c of the base D tapers forward so as to afford a shoulder or stop d in the draw-head for the movable pin-support and link-holder block E to rest against when lying forward and supporting the pin B and also for the purpose of facilitating the movement forward of the block E when the link C is withdrawn. On top of the base D at the back end is a recess e' as shown in Fig. 6, providing for the free movement of strap or link f described farther on.

E indicates the movable pin supporter and link-holder block. This block is of a form substantially as shown in Figs. 4 and 5 of the

drawings and may be of any suitable metal, by preference of cast iron, and of about twenty pounds weight to easily sustain the link C in a horizontal position and withstand the jar when couplings are made. This block has its under side beveled in a direction opposite to that of the upper side of the base D and is designed to slide thereon. The rear end of the block E has a vertical slot as shown at *e* in Fig. 4 in the drawings and receives one end of the strap or link *f* so as to pivotally connect said block E with the bottom of the draw-head at *g*, the upper end of the strap *f* being held by a pivot pin *h* in block E and the lower end fitting in a recess at *g* and being held by a pivot pin running through the draw-head at *i* at the rear end of the base D. The short strip *f* causes the movable block E to rise free from the base D when the link C enters the draw-head for coupling, the weight of the block E being mostly supported on the rear end of the link C. If pushed back to its farthest extent the block E presses into the upper back corner of the cavity at *j* and forms a solid back for the pressure of the link C. When the pin B is raised and the link C is withdrawn the strap or link *f* causes the block E to fall forwardly ready to support the pin B preparatory to coupling.

The forward upper end K of the block E projects substantially as shown in Fig. 5, of the drawings so as to form a support for coupling pin B when the cars are uncoupled as shown in A Fig. 1. In a companion draw-head this projection rests on the upper side of one end of the coupling link C holding it in an approximately horizontal position ready to couple as shown in A' Fig. 1. The projection K in block E is cut away on its under side *l* to form a rounding bevel so as to allow the coupling link C on entering the draw-head to pass easily under the projection K. In the front end of block E under the projection K is a recess, *m*, shown in Fig. 5, to provide for the closer impinging of the round end of link C to the block E. The projection K, by preference, extends its outer edges as is observed, so as to reach around

the sides of pin B and rest firmly on the link C. The cavity of the draw-head by preference is made large enough so that the block E will have free play in its operation sufficient to allow the coupling link C vertical and lateral movement to meet the swinging and other motions of the car.

The precise details of the construction above set out may be varied without departing from the spirit of the invention and features of the invention may be adopted without its use as an entirety.

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

1. A drawhead having a cavity back of the pin aperture with a solid shoulder *j* at the upper back part and the recess *g* to receive pivotally strap *f*.

2. The combination with the draw-head having a cut-a-way-space in the bottom back of the pin aperture leading to the said space adapted to allow the pin supporter and link-holder block to pass through the said space, arranged with a beveled edge or shoulder to support a base block with reversible beveled edges or shoulders and adapted to fit into said cut-a-way space and having its top side tapered on a down incline forwardly.

3. The combination with the draw-head having a link or strap pivoted to the bottom in the cavity back of the cut-a-way space connected pivotally with the back of the link-holder and pin supporter block and adapted to cause the pin supporter and link-holder block to fall forward when raised and released.

4. The combination in a draw-head having a cavity back of the pin aperture with a solid shoulder *j* and a recess at *g* of a block E with a vertical slot *e* in the rear end connected pivotally with a strap *f* whose other end is pivoted at *g*.

In testimony whereof I affix my signature in presence of two witnesses.

CROZIER T. THOMPSON.

Witnesses:

ALVIN V. TAYLOR,
E. MCINTYRE.