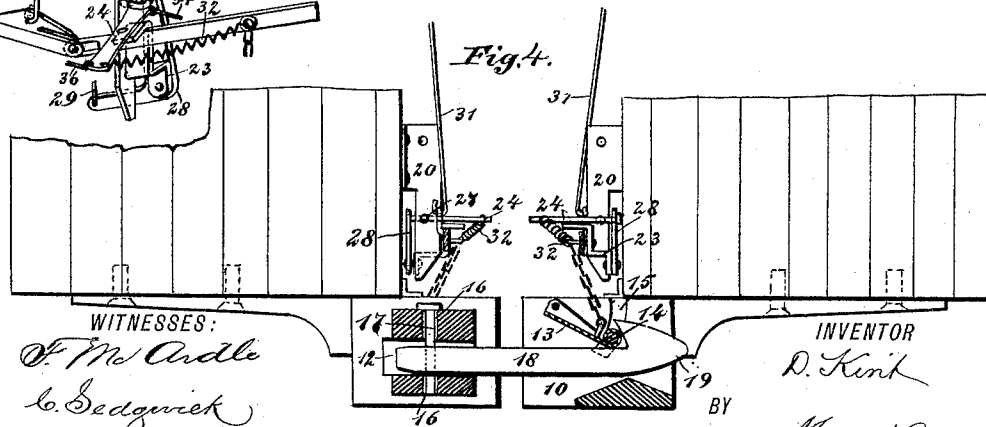
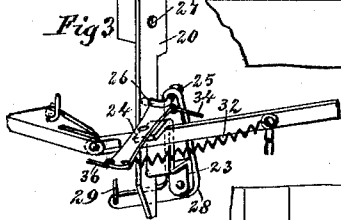
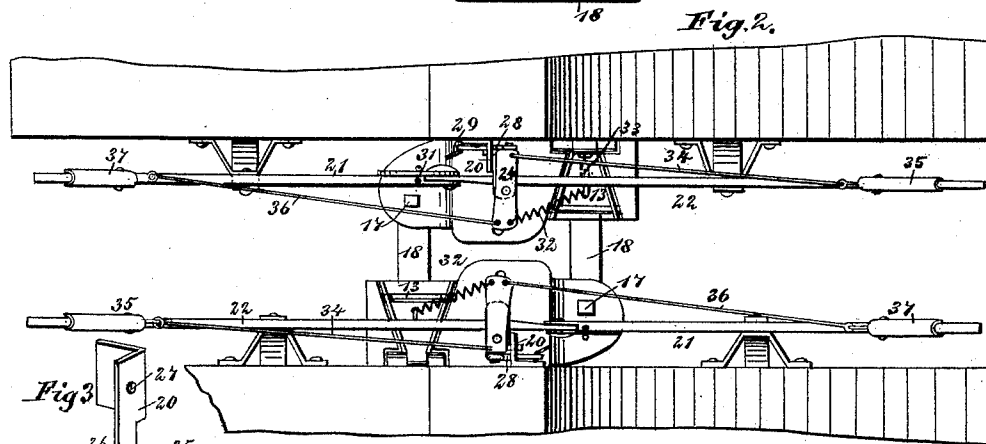
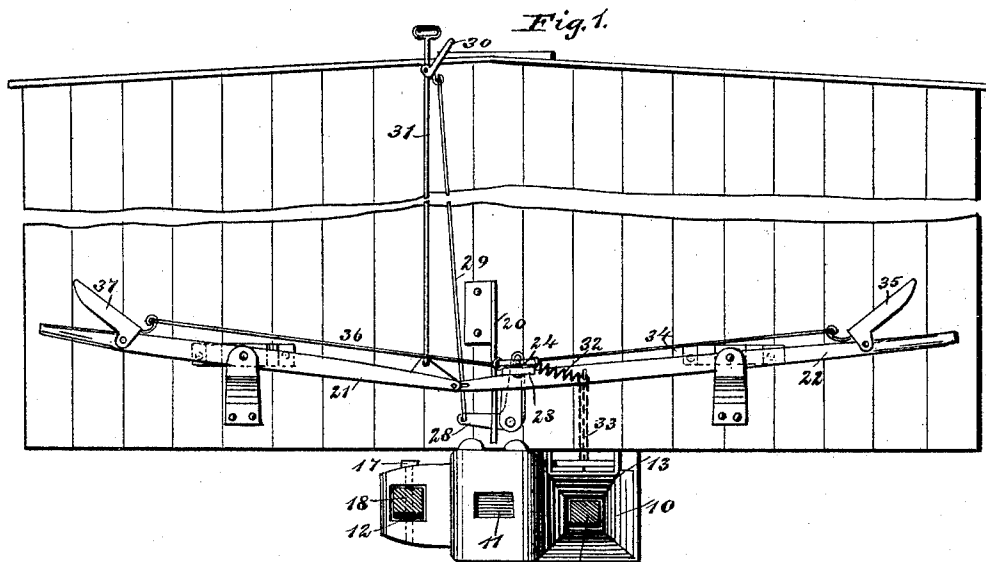


(No Model.)

D. KINT.
CAR COUPLING.

No. 476,749.

Patented June 7, 1892.



WITNESSES:

O. Mc Ardle
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INVENTOR

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BY

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UNITED STATES PATENT OFFICE.

DANIEL KINT, OF ALPENA, SOUTH DAKOTA, ASSIGNOR OF ONE-EIGHTH TO
GEORGE H. ARNE, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 476,749, dated June 7, 1892.

Application filed September 25, 1891. Serial No. 406,780. (No model.)

To all whom it may concern:

Be it known that I, DANIEL KINT, of Alpena, in the county of Jerauld and State of South Dakota, have invented new and useful Improvements in Car-Couplers, of which the following is a full, clear, and exact description.

My invention relates to an improvement in car-couplers; and it has for its object to provide a coupler which is capable of being conveniently and expeditiously coupled with one of similar pattern and is conveniently coupled with the ordinary link-coupler.

Another object of the invention is to provide a means whereby opposing cars may be uncoupled without necessitating the operator passing between them, and whereby the coupler may be operated as conveniently from the top as from the sides of the cars, and, further, whereby the coupling-pin may be locked in an elevated position.

The invention consists in the novel construction and combination of the several parts, as will be 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.

Figure 1 is a front elevation of the car-coupler attached to a car. Fig. 2 is a plan view of two couplers, illustrating them in their coupled or united positions. Fig. 3 is a perspective detail view of the lever mechanism for coupling and uncoupling, and Fig. 4 is a vertical section through two opposed and united draw-heads.

The draw-head proper is provided with three openings, viz: a link-opening 10 at one side, having inwardly-flaring walls and adapted to receive the link from an opposed coupler, a central opening 11, adapted to receive the link of an opposed ordinary link-coupler, and a second end or side opening 12, adapted to carry the link entering the opening 10 of the opposed coupler. The receiving-link opening 10, as heretofore stated, is provided with walls which are directed rearward in direction of the center, the central portion of the coupler at this point being open and unobstructed. The sides and bottom walls of the receiving-opening 10 are fixed, but the upper

wall consists of a tapering plate 13, having flanges upwardly projected from its sides, the said plate constituting the coupling-pin. At each side of the coupling-pin 13, at its rear, a trunnion 14 is located, and the trunnions are held to slide freely in curved slots or recesses 15, produced in opposite side walls of said receiving-opening 10. The central opening 11 is intersected by upper and lower pin-openings 16, the said openings being adapted to receive an ordinary pin, and the pin is purposed to pass through an ordinary link when the coupler is to be coupled with an ordinary link-coupling.

The construction of the opening 12 is essentially the same as that of the opening 11, but the opening 12 extends through from front to rear of the draw-head, and the opening 11 does not. The pin 17, which is passed through the opening 12, is also adapted to be passed through the link 18 of the draw-head, which link is best illustrated in Fig. 4, and consists of a bar of proper length, preferably rectangular in cross-section, terminating in what may be called a "half-arrow-head" 19, the head projecting upward from the body of the bar.

Upon the end of the car immediately over the center of the draw-head a plate 20 is rigidly secured, extending at a right angle from the car, which plate is shown in detail in Fig. 3. At each side of the plate a lever is fulcrumed, said levers being designated, respectively, as 21 and 22. The fulcrums of these levers are near their centers, and one of the levers 22 crosses the plate 20, each lever being of sufficient length to extend nearly to the side surfaces of the car. The two levers at their inner ends are pivotally connected, and the lever 22 at one side of the plate 20 is provided with an attached angular bracket 23, one member whereof extends horizontally over the top of the lever in direction of the front, and the other member in direction of the rear, beneath the lever.

Upon the top member of the bracket a short lock-lever 24 is fulcrumed. This lock-lever is provided at its inner end with a spur 25, and from its side, near its inner end, a tooth 26 is horizontally projected, adapted to enter any one of a series of apertures 27 produced

in the plate 20, as shown in Fig. 3. Upon the lower member of the bracket 23 an elbow-lever 28 is pivoted, one end whereof has a link attached, receiving the spur 25 of the upper lever 24. The other member, which is the lower one of the elbow-lever, has secured thereto a rod or chain 29, which extends upward and is connected with a lever-handle 30, pivoted upon a draw-rod 31, the said draw-rod being used upon freight-cars only and extending from the running-board of such cars down to a connection with the lever 21 at or near its inner end, as is best shown in Fig. 1. The outer end of the lock-lever 24 has attached thereto a spring 32, which spring is also secured to the lever 22, and the lever 22 is connected through the medium of a chain 33 or its equivalent with the coupling-pin 13, the attachment being made near the lower or inner end of the latter. Thus by manipulating the lever 22 the coupling-pin is elevated, and when the lever is released the pin by gravity falls to its lowest position. The inner end of the lock-lever 24 has secured thereto one end of a chain or rod 34, the other end of said chain or rod being attached to a hand-lever 35, fulcrumed near the outer extremity of the said lever 22. The outer end of the said lock-lever has attached thereto one extremity of a second rod or chain 36, which at its other end is connected with a hand-lever 37, fulcrumed upon the lever 21 near its outer extremity.

In operation when two couplers of the type described are brought together the link 18 of one coupler will enter the opening 10 of the opposed coupler and elevate the pin 13 contained in said opening until the head of the link has passed the pin, whereupon the pin will fall and the link will be locked in position and a like action takes place between the link of the other coupler and the opening 10 of the opposed one.

To uncouple, the coupling-pin is elevated by manipulating either of the levers 21 or 22 or the pull-rod 31, and when the link has been raised it is locked by the tooth 26 of the lock-lever entering one of the apertures in the plate 20, as when either the levers 21 or 22 or

the rod 31 are manipulated the hand-levers 50 carried thereby are compressed.

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

1. In a car-coupling, the combination, with the coupling device or pin, of two operating-levers pivotally connected together at their inner ends, a connection between said levers and the coupling device or pin to raise and lower it, a lock or latch carried by one of the levers, hand-levers on the outer ends of said levers, both connected with said lock or latch, and a keeper on the end of the car with which the said lock or latch is adapted to engage, substantially as set forth.

2. In a car-coupling, the combination, with the coupling device or pin, of the two levers extending adjacent to the sides of the car and pivotally connected with each other and said pin or coupling device, a latch or lock pivoted between its ends on one of said levers, hand-levers on said two levers and connected with said latch or lock, a bell-crank lever also connected with said latch or lock, a rod sliding vertically on the end of the car and connected at its lower end with one of the horizontally-extending levers, a hand-lever mounted on the upper end of said rod and connected with the bell-crank lever, and a keeper on the end of the car with which said lock is adapted to engage, substantially as set forth.

3. A coupling consisting in the draw-head having the three openings as described, one of the outer openings being flared and provided in its side walls with grooves 15, the pivoted coupling-plate 13, having opposite lugs at its lower rear end entering the said grooves, and operating-levers mounted on the end of the car, connected with each other and with the plate 13, one of the levers carrying a lock adapted to be operated from the outer ends of both levers, substantially as set forth.

DANIEL KINT.

Witnesses:

W. O. WINTERS,
E. R. HILLIS.