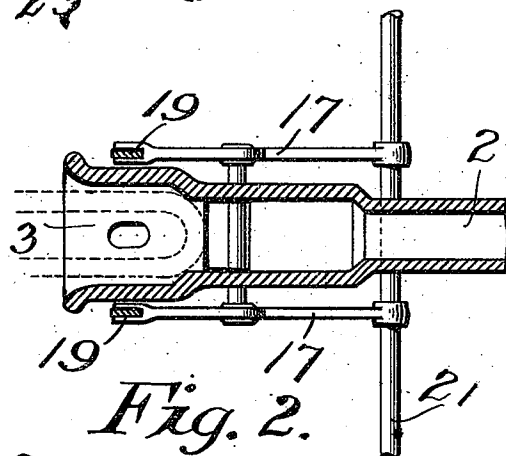
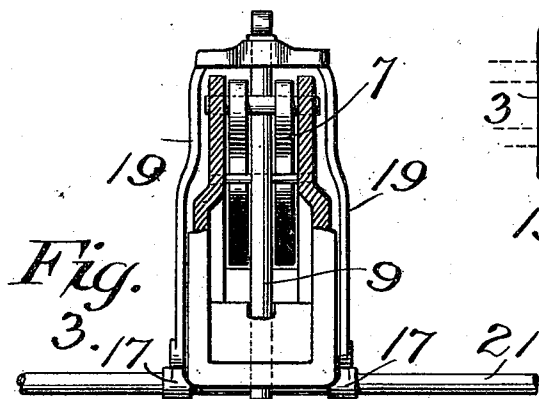
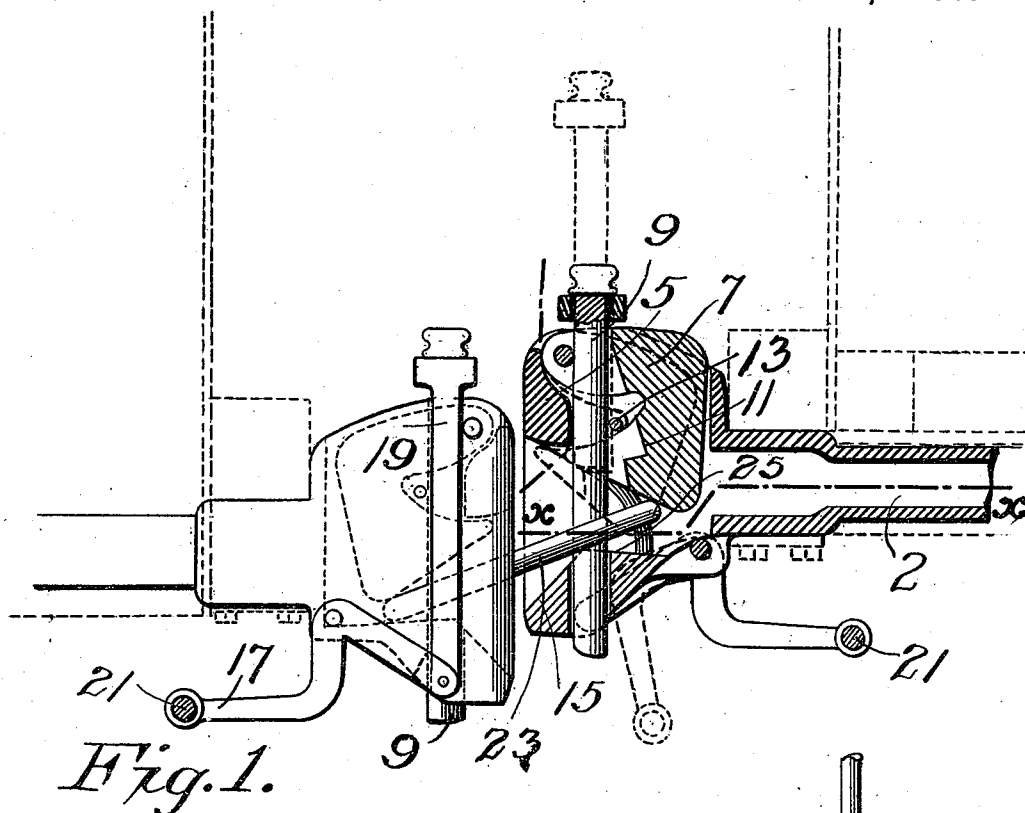


(No Model.)

J. HOLUM.
CAR COUPLING.

No. 511,427.

Patented Dec. 26, 1893.



Witnesses.

Chas. E. Van Doren.

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UNITED STATES PATENT OFFICE.

JOHN HOLUM, OF MINNEAPOLIS, MINNESOTA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 511,427, dated December 26, 1893.

Application filed June 6, 1893. Serial No. 476,797. (No model.)

To all whom it may concern:

Be it known that I, JOHN HOLUM, a citizen of the United States, residing at Minneapolis, in the county of Hennepin, State of Minnesota, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification.

This invention relates to improvements in car couplers, and the object I have in view is to provide a coupler for use upon freight cars especially and in which an ordinary link and pin may be employed so as to automatically couple when the cars are brought together.

The invention consists generally in the constructions and combinations hereinafter described and particularly pointed out in the claims, and will be more readily understood by reference to the accompanying drawings, in which—

Figure 1 is a longitudinal section and side elevation of a coupler constructed in accordance with my invention. Fig. 2 is a plan section on line $x-x$ of Fig. 1. Fig. 3 is a front elevation of one of the draw-heads.

In the drawings, 2 represents the draw-bar and head, which is constructed of cast metal and is of substantially the same form as the draw-head of the ordinary link and pin coupler. This draw-head is provided with the large cavity 3 which is preferably open at the top and the front of the draw-head is provided above the link opening with the transverse part 5 which forms a solid end to the upper part of the draw-head. Pivoted within this cavity is the link and pin holder 7 which is pivoted at its upper forward end and is in the shape of a hook, as shown, and is provided with the recesses in both parts at the forward end, forming a space through which the coupling pin 9 extends. This pin also extends through a hole in the bottom of the draw-head. The back part of the link and pin holder 7 is preferably formed solid and it is provided with the shoulder 11 forming a stop for the pin and upon which the pin may rest when the link and pin holder is dropped down to its lowest position and the link is out of the draw head. A pin 13 passes through the draw-head back of the coupling pin 9 and between the two parts of the link-holder 7. The draw-head is provided at its lower part with the incline 15 and the sides of the opening in the

draw-head are also preferably inclined so as to properly direct the link to the central part of the cavity in the draw-head. Pivoted upon each side of the draw-head is a lever 17 to which is connected a pin-lifter 19. The handle 21 is attached to the rear end of each of the levers 17 and projects toward the side of the car. The pin-lifter extends up on each side of the draw-head and across the top and is provided with an opening through which the coupling-pin 9 passes. 23 represents the link which may be of the usual form and construction.

The bottom wall 25 of the cavity in the draw-head is preferably inclined, being highest at the outer end so that when the link rests thereon with the pin and link holder 7 bearing upon the end of the link, the link stands in an inclined position with its outer end highest so that when the two draw-heads are brought together the end of the link striking on the inclined surface of the cavity in the draw-head rides up this surface and is brought into proper position in the link cavity even though one draw-head is considerably above the other. When the link is out of the draw-head the pin and link holder 7 drops down against the bottom of the link cavity and the coupling pin 9 rests upon the shoulder 11 and the pin is thus held in a raised position. When the end of the link strikes the under inclined surface of the pin and link holder it forces said pin and link holder backward causing it to turn upon its pivot and the shoulder 11 is brought from under the end of the pin 9. The cross-pin 13 prevents any backward movement of the lower end of the pin 9 and the pin immediately drops between the two parts of the lower portion of the pin and link holder, through the link and through the hole in the lower part of the draw-head, thus completing the coupling operation. The link and pin holder rests by gravity upon the end of the link at all times when it is in the draw-head and holds it in proper position for automatic coupling.

When it is desired to uncouple, the pin is raised by means of the handle and pin-lifter, and as soon as the link is drawn out of the draw-head the link and pin lifter drops forward, and the handle being released the pin will drop down until its upper end rests upon

the shoulder 11. The lower end of the coupling pin is preferably beveled, as shown, so that it readily drops off from the shoulder 11 while retaining its position thereon, until the link and pin holder is moved back by the entering of a link in the act of coupling the cars.

It will be seen that this coupler is very strong and durable, the solid front portion of the upper part of the link cavity adding greatly to the strength of the draw-head. It will be seen that it may be used with the coupling of the ordinary link-and-pin coupler; that it uses the ordinary link and pin and may be inserted in place of the ordinary draw-head in connection with the usual draft rigging upon any ordinary car.

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

1. The combination, with the draw-head, the link and the coupling-pin, of the pin and link holder 7 pivoted at its forward upper part

in the draw-head, and formed at its forward portion in two parts having a space between through which the coupling pin may pass, and provided with the shoulder 11 adapted to hold the pin in an elevated position and to rest by gravity on the end of the link, substantially as described.

2. The combination, with the draw-head, the link and the coupling pin, of the pivoted pin and link holder 7, provided with a shoulder adapted to hold the coupling pin in an elevated position and adapted to rest upon the end of the link, and the link lifter engaging the coupling pin, substantially as described.

In testimony whereof I have hereunto set my hand this 13th day of May, 1893.

JOHN HOLUM.

In presence of—
G. E. PURPLE,
F. S. LYON.