

E. S. CLARKSON.
 UNCOUPLING LEVER.
 APPLICATION FILED JULY 19, 1907.

949,955.

Patented Feb. 22, 1910.

Fig. 1.

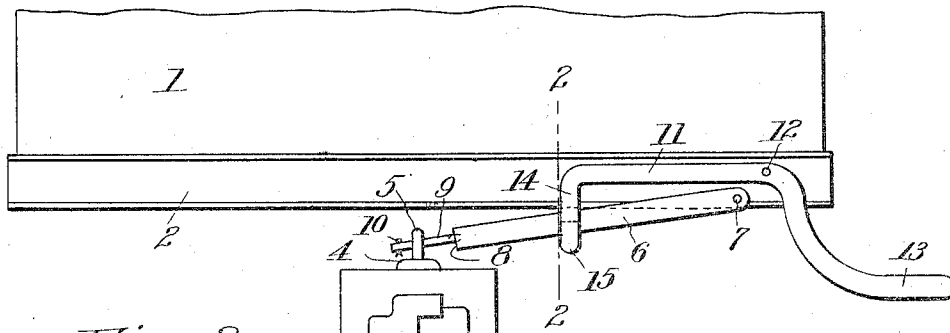


Fig. 2.

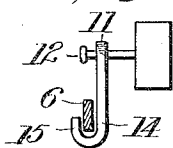


Fig. 3.

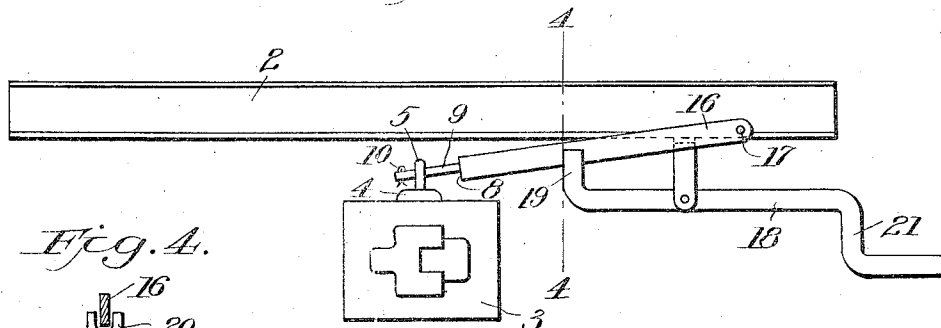


Fig. 4.

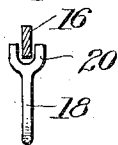
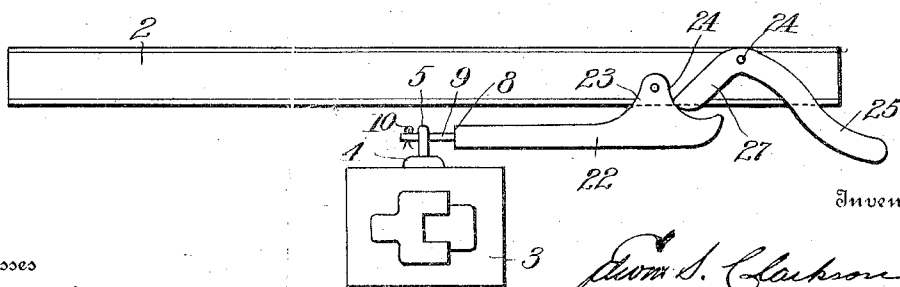


Fig. 5.



Inventor

Witnesses

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UNITED STATES PATENT OFFICE.

EDWIN S. CLARKSON, OF WASHINGTON, DISTRICT OF COLUMBIA.

UNCOUPLING-LEVER.

949,955.

Specification of Letters Patent.

Patented Feb. 22, 1910.

Application filed July 19, 1907. Serial No. 384,544.

To all whom it may concern:

Be it known that I, EDWIN S. CLARKSON, citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Uncoupling-Levers, of which the following is a specification.

The object of my invention is to provide an uncoupling lever that can be operated by an operator standing outside of the lines of the car. The lever is so constructed that it may be operated by hand when the operator is standing upon the ground or by the foot when the operator is standing upon the end sill of the car; and with these and minor objects in view, my invention consists of the parts and combination of parts as will be hereinafter more fully described.

In the drawing Figure 1 is an end view of a car broken away, showing my invention in position. Fig. 2 is a sectional view on the line 2-2, Fig. 1. Fig. 3 is an end elevation of a car, parts being broken away, showing a slightly modified form of lever. Fig. 4 is a detail sectional view on the line 4-4 Fig. 3. Fig. 5 is an end view of a car, parts being broken away, with another modified form of lever attached.

1 represents a freight car of approved construction provided with the usual end sill 2.

3 is a coupler of approved type, the pin 4 of which is provided with a perforated head 5.

6 is a lever pivoted at 7 to the end sill 2, the free end of said lever being reduced to form shoulders 8 and a reduced cylindrical portion or end 9 which is adapted to pass through the perforated head 5 of the pin 4 and be secured therein by means of the cotter pin 10. It will be noticed that the distance from the cotter pin and the shoulders 8 on the reduced portion 9 is materially greater than the width of the head of the coupling pin, whereby I provide for the side movement of the car and coupler in transit.

11 is a lever pivoted to the end sill at 12 and having its outer end 13 deflected downwardly below the plane of the underface of the end sill 2. The forward end of the lever 11 is bent downward as at 14 to form an arm, the lower end of which is bent up to form a hook 15 within which the lever 6 is adapted to rest. The pivot pins of the levers 11 and 6 are secured to the end sill in such manner that the head of the bolts 7 and

12 is spaced some distance from the end sill, say a distance equal to several times the thickness of the metal of which the levers are composed, whereby I provide for the backward and forward movement of the draw bar relative to the car, thus eliminating all strain and twisting upon the levers and their pivot pins or bolts.

When it is desired to uncouple, the operator, if he be standing on the ground, reaches under the end sill and presses downward upon the deflected end 13 of the lever 11 which by means of the hook 15 pulls the lever 6 upward, thereby withdrawing the pin 4 and unlocking the coupler. If the operator be standing upon the end sill the deflected end 13 of the lever 11 may be readily reached with his foot and thus operated. It will be noticed that the lever 11 is pivoted in a horizontal plane above the pivot of the lever 6 and to one side thereof.

In the construction shown in Figs. 3 and 4, the lever 16 is pivoted at 17 to the end sill and has its forward free end reduced for engagement with the perforated head of the coupling pin as has been described in connection with lever 6 in Fig. 1. 18 is a lever pivoted to the end sill at a point below and to one side of the pivot of the lever 16, the inner end of which is deflected upward to form an arm 19, the extreme end of which is forked as at 20 to form a seat within which the lever 16 is adapted to rest. The outer end of the lever 18 is deflected downwardly at 21, thence at right angles in a horizontal plane under the end sill and thence at right angles toward the end of the end sill, whereby it is brought into position with reference to the end of the end sill to facilitate its operation by the hand or foot of the operator.

In the construction shown in Fig. 5, 22 is a lever provided with an extension 23 near one end by means of which the lever is pivoted to the end sill 2. The face 24 of the extension 23 is a cam face, to be hereinafter referred to. The inner end of the lever 22 is reduced to adapt it to engage the perforated head of the coupling pin. 25 is a lever pivoted at 26 to the end sill above and to one side of the pivot of the lever 22, said lever 25 being deflected downward, or sagging toward each end from the pivot 26. The downward deflected or sagging arm 27 of the lever 25 has a cam face on its extreme end which is adapted to

engage the cam face 24 on the extension 23 of the lever 22. The outer end of the arm 25 is deflected or sags below the underface of the end sill 2. The operation of this lever is as follows: When it is desired to uncouple the outer end of the lever is pulled upward, thereby forcing the end 27 of the lever downward, which by means of its cam face, coming upon the cam face 24 of the extension 23, forces the inner end of the lever 22 upward, thus unlocking the pin.

In the several constructions shown it will be seen that in all cases the outer or operating end of the lever is below the end sills, thus eliminating the necessity of the operator standing between the cars in the act of coupling or uncoupling, and consequently reducing the liability to accidents heretofore common in this class of work. The head of the pivot bolts or pins in each construction is so positioned with reference to the face of the end sill as to provide for play between the levers and car to take up the relative movement between the car and the draw bar. In other words a loose pivot is provided.

I am aware that a number of changes

may be made in the details of construction without departing from the scope of my invention, and hence I would have it understood that I do not wish to be limited to the precise details shown.

Having thus described my invention what I claim is:

In a release rigging, the combination with a hand operated lever pivoted to a car end sill, one end of the lever terminating in a handle sagging below the end sill, the other end extending in line with the end sill for the major portion of its length and formed in a depending hook below the plane of the under face of the end sill, of a locking pin operating lever pivoted near its end to the end sill below the said hand operating lever and terminating at its other end in a reduced portion constructed to have a sliding engagement with the eye of the locking pin.

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

EDWIN S. CLARKSON.

Witnesses:

J. M. WYNKOOP,
L. R. NEVITT.