(Model.)

C. TROUP.

CAR COUPLING.

No. 261,184. Patented July 18, 1882.

Fig. 1.

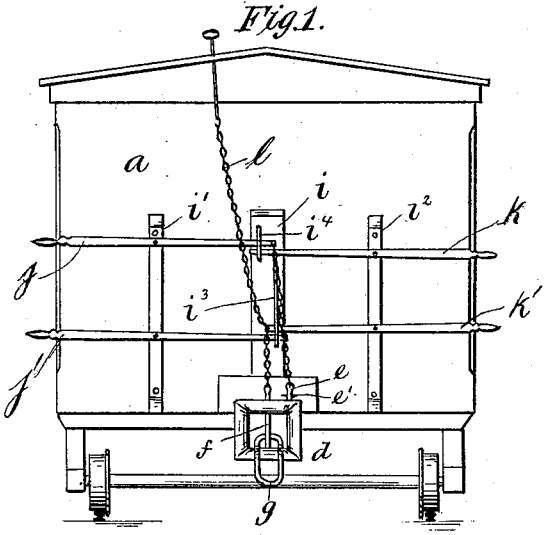


Fig. 2.

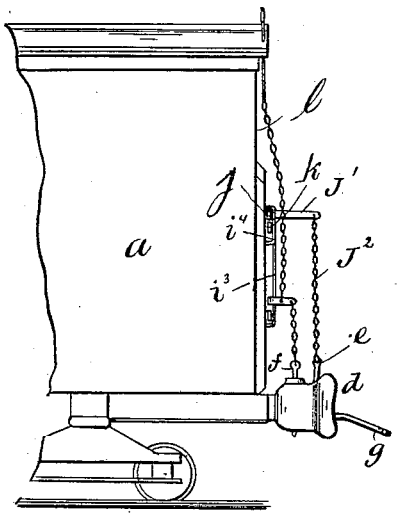


Fig. 3.

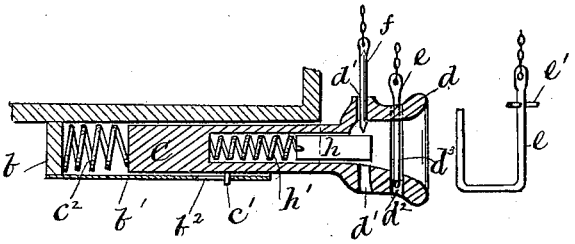
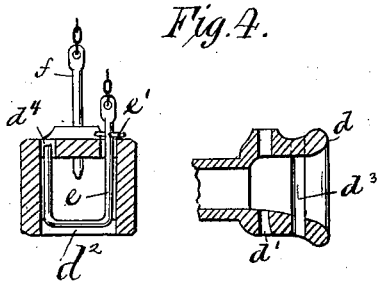


Fig. 4.



WITNESSES

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CHARLES TROUP, OF WATSEKA, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 261,184, dated July 18, 1882.

Application filed April 29, 1882. (Model.)

To all whom it may concern:

Be it known that I, CHARLES TROUP, a citizen of the United States, residing at Watseka, in the county of Iroquois and State of Illinois, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in car-couplers; and it consists in the construction and arrangement of the several parts, as will be hereinafter fully described and specifically pointed out in the claims.

In the drawings, Figure 1 is an end view, and Fig. 2 is a partial side view, of a car having my improved coupler; and in Fig. 3 I show a vertical longitudinal section of the draw-bar; and Fig. 4 shows a vertical longitudinal and a transverse section of the draw-head.

a represents the car.

b represents the back bar of a casing secured to under side of car, in which is held the draw-bar. The bottom plate, *b'*, of this casing has formed through it the slot b^2, in which works a pin extended from under side of draw-bar, as will be described.

c is the draw-bar, placed within the casing, secured on under side of car.

c' is a pin projected from bottom of draw-bar through the slot b^2, and adapted to limit the forward and back movement of the bar in bumping.

c^2 is a spring arranged to bear between the bar *b* and the rear end of draw-bar *c*, and adapted to hold the draw-bar out with pin *c* bearing against forward end of slot b^2, as shown in Fig. 3, and yield to the draw-bar in the bumping of the cars. The forward end of the draw-bar is mortised to receive the block arranged to be engaged by the link and the coil-spring supporting the said block out under the pin, as shown in Fig. 3.

d is the draw-head, secured to draw-bar *c*. The mouth of this draw-bar is properly rounded to guide the link. *d'* represents a hole cut through upper and continued through the lower sides of the draw-head near its rear, and adapted to receive the coupling-pin, as will be described. Through the bottom of the draw-head, near the mouth of the same, I cut the mortise d^2. This mortise extends the width of the inner side of the draw-head and on either side the diameter of the bars of hook for elevating the link, as will be described. In the inner walls of the draw-head opening, in the mortise d^2, I cut the grooves d^3 sufficiently deep to receive the side arms of the hook hereinafter described. I cut openings d^4 in the top of the draw-head, in line with grooves d^3, to permit the ends of the hook to pass through.

e is the hook for raising the link. It is constructed to be seated with its side bars resting and sliding in the grooves d^3 and its bottom working in the mortise d^2 in bottom of draw-head. This hook, it will be seen, is arranged in front of the coupling-pin, and when the link is secured by the pin it may readily be raised or lowered by the hook, as shown. *e'* is a pin passed through hole in one of the side bars of hook, and adapted to prevent the same from falling when not being used. The side arms and bottom piece of hook are seated in the grooves d^3 d^3 and mortise d^2, and are out of the way, and do not interfere with the ready insertion of the link. One of the side bars of the hook *e* is provided with an eye to connect with chain.

f is the coupling-pin, having suitable eye to connect with lifting-chain.

g is the link.

h is a block sliding in mortise in end of draw-bar, and supported out in the position shown in Fig. 3 by spring *h'*.

i is a cleat secured in a vertical position on end of car, midway its sides, and directly over the draw-bar.

i' i^2 are cleats secured to the end of car on either side of and parallel with cleat *i*.

i^3 is a staple fixed on cleat *i*. It is arranged to secure the inner end of the arms for operating the coupling-pin, and to serve as stop to limit the upward and downward movement of the same.

i^4 is a staple secured to cleat *i* above staple i^3. This staple i^4 is shorter than staple i^3, as it is intended to secure the ends of arms for operating the hook *e*, and it is not necessary that the hook should be raised as high as the link. These staples are made about as high as the arms hereinafter described are thick, in

order that one of the arms cannot pass the other in the bail.

j is an arm pivoted about its center on cleat *i'*, and having its outer end extended beyond the side of the car and provided with a handle, and its opposite end carried through the bail i^4 and bent at right angles, forming the portion *j'*, which is projected over the draw-head with its end over the hook *e*. The hook *e* and the outer end of portion *f'* are connected by chain j^2.

k is an arm pivoted about midway its length on cleat i^2, and having its outer end extended beyond the side of the car and provided with a bundle, and its opposite end passed within the bail i^4 and rested under the arm *j*, so that by pressing the outer end of arm *k* downward the arm *j* will be raised, so that the hook *e* may be raised from either side.

j' k' are arms similarly constructed to arms *j k*, and arranged so that their ends operate in staple i^3, and properly connected with the pin to raise the same, substantially as shown.

l is a chain extending from arm *k'* to top of car, and secured there, so the arm *k'*, and consequently the coupling-pin, may be raised and the uncoupling may be accomplished from roof of car.

I construct both the arms *j k'* with opening, or in some other suitable manner, so the chain *l*, extending to top of car, may be readily connected thereto in order to operate either the coupling-pin or the hook *e* from top of the car.

By the construction described it will be seen the coupling-pin or the hook for adjusting the link may be operated from either side of the car or roof of same.

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

1. The combination of the car provided with staples i^3 i^4, arranged one above the other, the lever-arms *j k'*, pivoted to the end of the car and having one end extended beyond the side of the same and their opposite ends passed through the staples i^4 i^3, and connected respectively to the link-elevating hook and to the coupling-pin, and the lever-arms *k j'*, pivoted to the end of the car and having one end extended beyond the side of the same and their opposite ends carried within the staples i^4 i^3 and rested under and in position to raise the ends of levers *j k'* in the operation of the invention, substantially as and for the purposes set forth.

2. The combination, substantially as described, with the draw-head *d*, provided with vertical pin-hole *d'*, and having mortise d^2 cut through its bottom in front of the said pin-hole, and having vertical grooves d^3 in its inner walls and openings d^4 extending from said grooves d^3 through the top of the draw-head, of the hook *e*, having its side arms placed and sliding in the grooves d^3 and through the openings d^4 and its end bar working in mortise d^2, and having pin *e'* secured to one of its side arms above the draw-head and connected to rod *j* and adapted to elevate the link, as set forth.

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

CHARLES TROUP.

Witnesses:

LYMAN M. JOHNSON,

LURA C. STREAN.