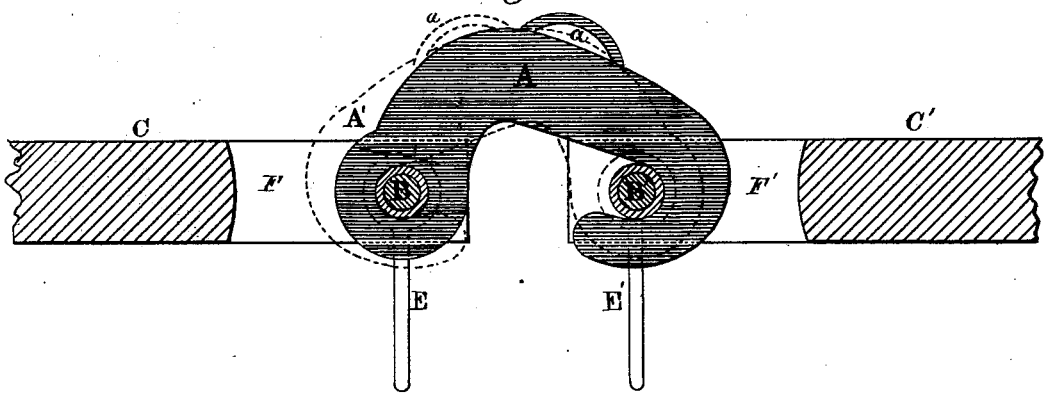
W. B. DUNNING.

CAR-COUPLING.

No. 189,614. Patented April 17, 1877.

Fig. 1.



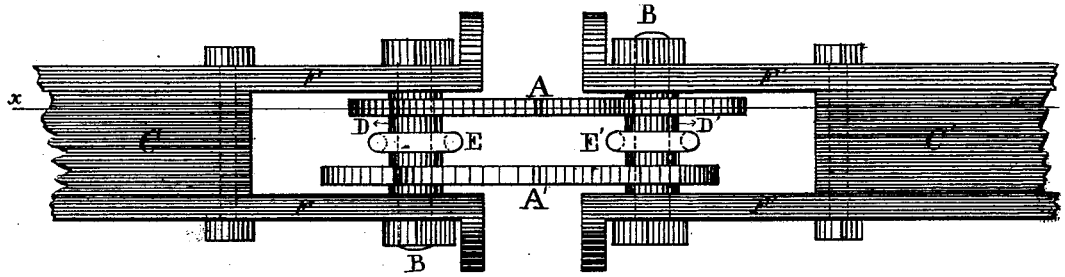


Fig. 2.

Fig. 3.

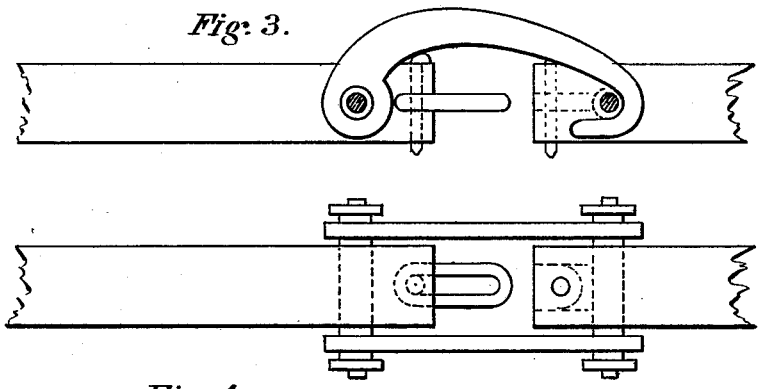


Fig. 4.

Witnesses

C. M. Connell

W. R. Singleton

Inventor

Wm. B. Dunning

By Blanchard & Singleton

Attys

UNITED STATES PATENT OFFICE.

WILLIAM B. DUNNING, OF GENEVA, NEW YORK.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **189,614**, dated April 17, 1877; application filed March 30, 1877.

To all whom it may concern:

Be it known that I, WILLIAM B. DUNNING, of Geneva, in the county of Ontario and State of New York, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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 letters of reference marked thereon, which form a part of this specification—

Figure 1 being a sectional elevation, on line *x x* of Fig. 2, of two buffer-heads with my improved coupling device attached, and showing also the pivotal points of the hooks, having links attached thereto for coupling cars provided with my improved device to ordinary cars. Fig. 2 is a plan view of the buffer-heads, showing the plan of their construction, with the hooks and links in position; and Figs. 3 and 4 show a modified form of buffer, the coupling-hooks being outside of the bars or plates forming the buffer, and the hooks between said bars, in the usual form.

Corresponding letters denote like parts in all of the figures.

This invention relates to devices for coupling cars; and it consists in the construction of coupling-hooks for that purpose, as will be more fully set forth hereinafter.

In constructing buffers of the character required for attaching my improved hooks and links I use bars C C′, of wood or metal, to the inner ends of which the buffer-springs are attached in any suitable manner. Upon the outer edges of the bars C C′ plates or bars of metal F F′ are attached by bolts or other suitable fastenings, said bars having flanges projecting outwardly upon their outer ends, which flanges constitute the head of the buffer, they coming in contact whenever the cars approach each other sufficiently to admit of such a result being produced. For securing the outer ends of the bars F F′ in position bolts B B′ are passed transversely through them, as shown in Fig. 2. These bolts are provided with thimbles or ferrules D′, which fill the space between the bars, and thus prevent their approaching each other, while the heads of the bolts and the nuts upon their opposite ends prevent any spreading of the same.

The above-described parts form no portion of my present invention, and, consequently, need not be more particularly described here. The parts necessary to enable the operator to readily couple or uncouple the cars being what constitutes my present invention, I will now proceed to describe them.

For the purpose of coupling the cars when supplied with my improved coupling-hooks A A′, I construct said hooks substantially as shown in Fig. 1 of the drawing, each hook being supplied at its fixed end with an aperture of sufficient diameter to admit of its being passed over the ferrule D′ upon the bolt B or B′, and permit it to swing freely thereon. From this pivotal point the hook has a straight bar or portion extending upward for a considerable distance above said pivotal point, and is then bent forward or outward, its under surface at this point being straight until it comes near its outer end, when it is formed into a hook, as shown in Fig. 1.

The object of this particular construction of the hooks is to prevent them from becoming uncoupled when in use, and it will be perceived that, owing to the slope thereof, and to the fact that so much of the weight of said hook is above the pivotal point and the point at which the hooked end rests upon the ferrule in the opposite head, this result is accomplished, whatever may be the difference in the height of the two buffers. For convenience in handling the hooks there is formed upon their upper edges a handle, *a*, as shown, by means of which they can be disengaged from the ferrules D′, either by a person standing on the ground; or a cord may be attached thereto, and operated from the top of the car.

For the purpose of enabling a car provided with my improved hook to be coupled to one not thus equipped I use a peculiar form of link, E E′, it having a socket at one of its ends, through which the bolt B B′ and the ferrule D′ pass. This construction of the link enables it to always remain suspended when not in use, in the manner shown in Fig. 1, and by providing its outer or free end with an elongated opening transverse to that by which

it is supported upon the ferrule, it can at any time be raised, so as to allow a pin to be passed through it and through a common buffer, and thus the connection will be made.

I am aware that it is not novel to construct a hook for coupling cars in such a manner that one of its ends is made fast to the buffer, while its opposite end is free to embrace a bolt or pin in the opposite buffer-head; and I am also aware that it is not novel to construct a hook in such a manner that a considerable proportion thereof is above the pivotal point; and hence I do not claim, broadly, such form of construction; but,

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

A hook for coupling cars, constructed with a straight portion extending upward from its pivotal point, and having a portion extending forward therefrom, and terminating in a hook, which embraces a bolt or ferrule between the two bars of the buffer-head, its under portion extending some distance in the rear of such ferrule or bolt, the under surface of said forward-extending portion being straight and raised above the line of its pivotal point, whereby it is prevented from being uncoupled when in use, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WM. B. DUNNING.

Witnesses:

S. SOUTHWORTH,

C. L. HEMIUP.