

Car-Couplings.

No. 140,957.

Patented July 15, 1873.



Attest

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **140,957**, dated July 15, 1873; application filed
February 21, 1873.

To all whom it may concern:

Be it known that I, WILLIAM P. SIDDENS, of State Line City, in the county of Warren and State of Indiana, have invented certain Improvements in Car-Couplings, of which the following is a specification:

Figure I of the accompanying drawing is an end view of my improved coupler, it being shown as attached to the frame-work of a car. Fig. II is a side elevation of two such instruments, in one of which the coupling-pin is shown as passing through the link and buffer-head, while in the other the pin is shown in the position in which it is placed when the cars are uncoupled, its lower end resting in a longitudinal groove formed in the upper surface of the head, its upper end being held in position by a bracket or yoke attached thereto. Fig. III is a plan view of the buffer-head, showing the grooves in its upper surface, and a stop for the coupling-pin.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to that class of car-couplings which are automatic in their action, so far as the act of coupling the cars is concerned, it being designed as an improvement upon the device patented to William P. Siddens and Robert Craig on the 18th of June, 1872; and it consists, first, in forming certain grooves in the upper surface of the buffer-head, for the coupling-pin to rest and move in, they being so arranged that the same may be placed in a position that will insure the coupling of the cars when brought together with the requisite amount of force; or it may be placed in another position or groove, and thus render it impossible that the cars shall be coupled automatically. The second part of my invention consists in a bracket or yoke which is attached to the buffer-head in the manner shown for the purpose of guiding the upper end of the pin, its upper surface being provided with an elongated slot, for the purpose of allowing the pin to assume the angular position shown in Fig. II, while its lower end passes down through ears formed upon the head, which ears constitute the third part of this invention.

A in the drawings refers to the end and

side sills of the car, the buffers or coupling-bars being attached thereto, they being designated by the letter B. These buffers may be made of cast-iron, or of any other suitable metal, their outer or front ends being provided with a series of apertures, one above the other, for the reception of the coupling-link, and with an elongated aperture for the reception of the coupling-pin. In the upper surface of the head B grooves B¹ B² are formed, as shown in Fig. III. One of these grooves is in line with the axis of the buffer, and it is into this groove that the lower end of the pin is placed when it is desirable to have the cars couple when brought together, the movement of the lower end of the pin being effected to produce that result by its coming in contact with the stop B³ as the buffer is forced inward by contact when the cars come together. The stop being stationary, the end of the pin is held in such a position that when the buffer has been forced in a short distance its lower end, guided by the slot B¹, will enter the aperture in the head, when its own gravity will carry it down, and the cars will be automatically coupled.

It frequently occurs that it is desirable that cars should be brought together without the possibility of their being attached to each other, as, for instance, when they are to be run onto a siding, or when one car is made to push others for a short distance, and is then suddenly to be stopped.

In order that the effect above described may be produced a groove, B², is formed at a right angle to the one above alluded to, or this groove may be at any other angle to B¹ that will allow the buffer to be forced inward the requisite distance without bringing the pin in contact with the stop B³. When it is desirable to so arrange the pin that the cars will not be coupled on coming together the pin D, on being raised, has its lower end placed in one of the angular grooves, which will remove it from contact with the stop, and the cars may be brought together any number of times without being attached to each other.

In order that the coupling-pin may be held in its proper position a bracket or yoke, E, is provided, the construction of which is clearly

shown in Fig. I of the drawing, its upper surface being provided with an elongated hole, through which the coupling-pin passes, while its lower end passes down through ears C C' upon the sides of the buffer-head, and is secured by nuts upon the lower end. This arrangement compels the bracket always to travel with the buffer-head, and consequently the pin is always in a vertical position when the aperture in the head is in such a position that it can pass down, and thus effect the connection of the cars.

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

1. A buffer-head having in its upper sur-

face longitudinal and transverse or angular grooves for the lower end of the coupling-pin to rest in, arranged substantially as and for the purpose set forth.

2. In combination with a buffer-head having in its upper surface longitudinal and transverse or angular grooves, the bracket or yoke E, arranged to operate substantially as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my name to this specification in the presence of two subscribing witnesses.

WILLIAM P. SIDDENS.

Witnesses:

ALEXANDER A. RICE,
CHARLES GROVENDYKE.