

UNITED STATES PATENT OFFICE.

LEVI N. DOBBINS, OF PROGRESS, WEST VIRGINIA, ASSIGNOR OF ONE-HALF
TO J. J. STALNAKER, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 656,179, dated August 21, 1900.

Application filed September 18, 1899. Serial No. 730,939. (No model.)

To all whom it may concern:

Be it known that I, LEVI N. DOBBINS, a citizen of the United States, residing at Progress, in the county of Braxton and State of West Virginia, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention relates to car-couplers, and has for its object to produce a simple and practical coupler adapted to be operated from the sides of the cars, thus obviating the necessity of the trainmen standing between the cars in the act of coupling; and it consists of a yoke in which the coupling-pin is suspended, a handle or operating-lever pivoted underneath the car and extending alongside of the same, and a series of levers connecting the operating-lever and the yoke carrying the coupling-pin.

In the drawings which accompany and form a part of this application, Figure 1 is a side elevation of a car (broken away) with my invention attached. Fig. 2 is a front elevation of the same. Fig. 3 is a perspective view of my invention assembled and detached from the car. Fig. 4 is a top plan view of the link.

Referring to the drawings, 1 represents a car of the approved construction, and 2 the coupler, secured in the usual manner to the car and provided with a pin-holder 3, from which extends a stem 4, around which is coiled a spring 5.

6 is a rigid nut secured within the coupler and provided with an opening through which the stem 4 slides. The outward movement of the stem 4 and holder 3 is limited by means of a pin 7, which is secured in an aperture through the stem.

8 is a yoke, the lower ends 9 of which are turned at right angles and flattened.

10 is the coupling-pin, flattened and split at its upper end, as at 11, to form a groove in which the upper portion of the yoke is secured by means of a pivot-pin 12 in such manner that the pin is free to swing from side to side.

13 is a lever flattened at its ends and provided with bolt-openings in said flattened ends. This lever, as will be seen from the drawings, is given a slight bend, as at 14, to give greater leverage. One end of said lever

is pivoted between the right-angled ends 9 of the pin-carrying yoke and hung at its outer end in an eye 15, secured under the car.

16 is a rod or shaft journaled in the strap-bearings 17 underneath the car and provided with operating levers or handles 18, secured to each end close up to the side of the car. This rod is also provided with a link 19, secured near its center and extending downwardly from the rod, the extreme forward end of the link being bent at 20 at an angle more clearly shown in Figs. 1 and 3.

In applying the several parts to the car the rod or shaft 16 is first secured in place and the lever 13 being secured to the yoke 8 is passed through the link 19 and then secured to the eyebolt 15.

The handles 18 are limited in the upward movement by means of the stops 21, which may, if preferred, be of spring metal to firmly secure the handles in their upright position, although this is not necessary, as the weight of the link 19 is ordinarily sufficient for this purpose. The downward movement of the handles is limited by the free end of the lever 13 and the bottom of the yoke 8 coming in contact with the under surface of the draw-head. The distance between the lower end of the link 10 and the bottom of the yoke is less than the thickness of the head of the draw-bar, so that when the yoke has been raised to its fullest extent the end of the pin will still remain in the draw-bar, thereby avoiding the possibility of the link being thrown out of the draw-bar by the upward movement of the yoke. By splitting the upper end of the coupling-pin and pivotally securing it to the top piece of the yoke the pin is free to move laterally toward either side, thereby giving it sufficient play to avoid binding, yet it causes the pin to move freely through the opening in the draw-bar.

The operation is as follows: To secure the pin ready for automatic coupling, the handles 18 are pushed down, thereby revolving the rod or shaft 16 and raising the link 19, which then comes in contact with the lever 13 and pushes it upward, thereby elevating its forward end which carries the yoke 8 and pin 10, thus in turn elevating said yoke and pin to the position shown in Fig. 1, whereupon the

pin being removed from its path the block 3 is pushed by the force of the spring 5 across the pin-opening in the coupler. The operating-handle 18 is then elevated to its normal position, (shown in Fig. 1,) whereupon the pin drops upon and is supported in its elevated position by the block 3, thereby holding the yoke and lever 13 in the position shown in full lines in Fig. 1. As soon as the link of another car strikes against the block 3 it is pushed backward from under the pin, whereupon the pin under its own and the weight of the yoke drops and secures the link, thereby coupling the cars, the yoke and lever 13 assuming the positions shown in dotted lines in Fig. 1. It will be observed that the front end of the pin-block 3 is slightly concaved to guide and hold the coupling-link in a horizontal position in coupling.

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

In a car-coupler the combination with a substantially-rectangular yoke, the upper end of which is perforated at its middle, and 25 the lower end is open and has its ends perforated and bent at an angle and lying parallel with each other, the sides of the yoke fitting loosely upon the opposite sides of the draw-bar, of a coupling-pin having its head 30 bifurcated and pivotally secured to the yoke at said perforation, a lever pivotally secured at one end between the parallel ends of the yoke and having its opposite end secured beneath the car, and a rock-shaft journaled 35 across under the end of the car, the central portion of which is provided with a link for engaging with the lever and each end is provided with a handle.

LEVI N. DOBBINS.

Witnesses:

J. W. CARTRIGHT,
J. R. PERKINS.