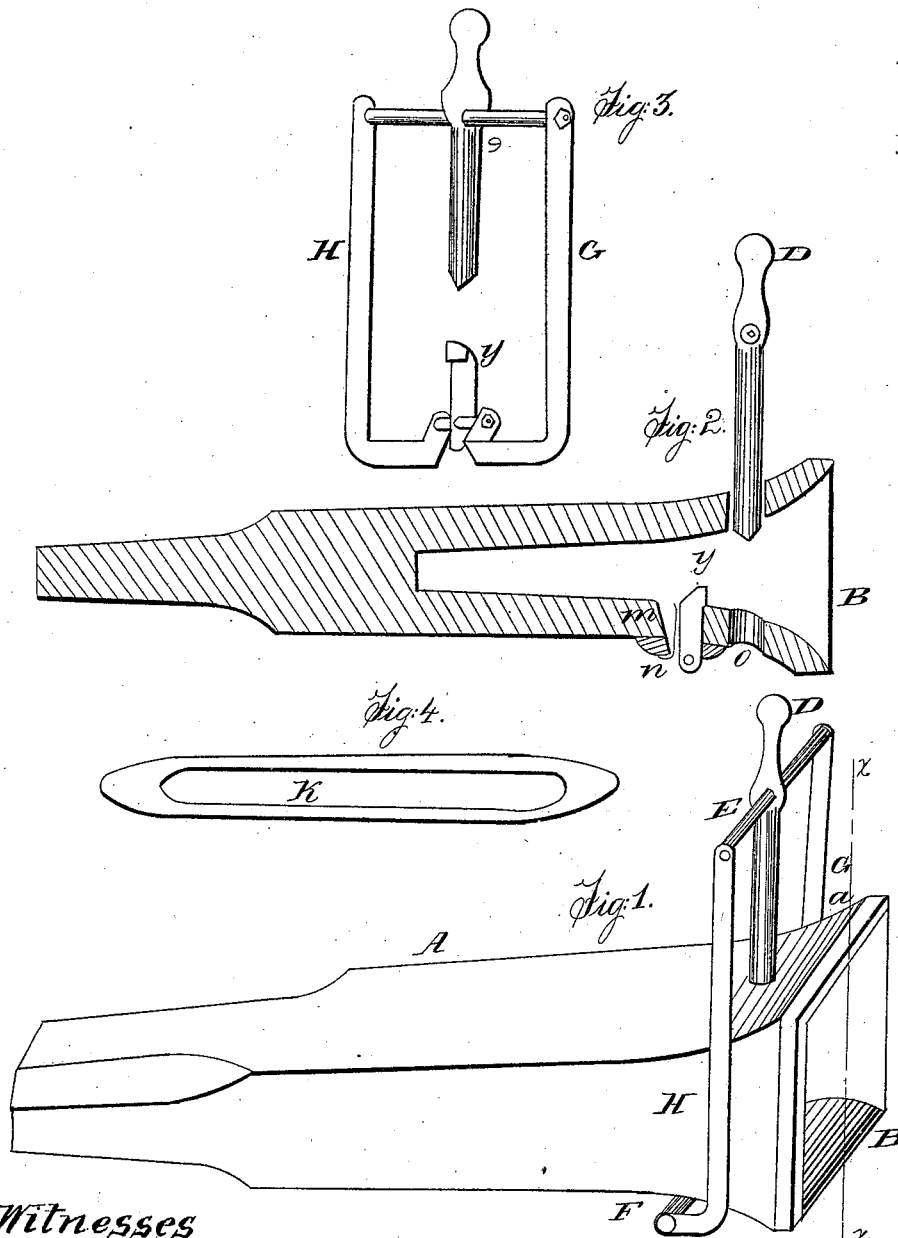


J. H. PARSONS.

Car Coupling.

No. 52,592.

Patented Feb. 13, 1866.



Witnesses

C. P. Wiley

Saml. H. Sawyer

Inventor

J. H. Parsons

# UNITED STATES PATENT OFFICE.

JOHN H. PARSONS, OF QUINCY, MICHIGAN.

## IMPROVED CAR-COUPLING.

Specification forming part of Letters Patent No. 52,592, dated February 13, 1866.

*To all whom it may concern:*

Be it known that I, JOHN H. PARSONS, of Quincy, in the county of Branch and State of Michigan, have invented a new and useful Improvement in Coupling Railroad-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is a sectional view through the line *x x*. Figs. 3 and 4 are detached and sectional views.

Similar letters of reference indicate corresponding parts.

The object of my invention is to furnish a car-coupling by means of which cars may be coupled without the aid of any person and avoid the risk and danger to such person while coupling cars in the ordinary manner; and it consists of a cast-iron draw-head fastened in the ordinary manner to the car-frame. Near the out end of the draw-head I provide an iron frame or rack made to slide up and down in grooves cut in the sides of draw-head for this purpose. To the upper cross rod or bolt of this rack I attach the pin for coupling, and to the bottom cross rod or bolt I attach a pin formed with a lip at the upper end, made to catch on the edge of the hole through which it plays by means of a steel spring pressing against it, the whole to be operated by the link or shackle hereinafter more fully described.

I make the draw-head A, Fig. 1, of cast-iron, not varying materially from those in common use, except that just immediately back of the coupling-pin hole on the bottom I make a second hole or oblong opening slanting inward, so that the inside surface of the hole is longer than the outside, and resembles very much the letter V, except that the front side of said hole is straight, the slant being on the back side. I also make the draw-head thicker at this point on the bottom by an oval-shaped rising resembling the half of a ball, through which the second hole or opening is made, heretofore described, and as shown in Fig. 2, and with sufficient flare at the opening B that the link may be sure to enter and slide in with ease.

The bars H and G of the rack or frame are made of round or half-round iron, so that they may slide freely in the grooves cut in each side of the draw-head, as shown at *d*, Fig. 1. These bars are made as shown in Fig. 3, the lower end being bent inward or directly under the draw-head, about one third the width of the draw-head, thence back at right angles, leaving the ends in line with the second hole, as shown on bottom of draw-bar. The upper ends of the bars H and G are connected by the round iron rod or bolt E, Fig. 1, there being a shoulder turned on each end of this rod, also a screw-thread cut with a nut, the ends passing through the bars H and G, which are held firmly by the said screw and nut. The bolt E also passes through the pin D, the hole in the pin being made large enough that it may play freely on the bolt, and is kept from sliding sidewise on the bolt by means of two small keys, one each side of the pin, passing through the bolt. In like manner the lower ends of the bars H and G are secured and held in their proper place by the short bolt which passes through the catch-pin *y*, Fig. 3. This short bolt is made just long enough between its two shoulders to give the pin *y* free and easy play. The pin *y* is constructed as represented in Fig. 2, the top of said pin being beveled off, forming an inclined plane, so that the foot of the plane is in line with the bottom of the inside of draw-head. The front of the pin is made to project enough to form a lip or catch, as shown.

The link is constructed as shown in Fig. 4, the ends being made solid a short distance inward, so that the pin will keep the link far enough in the draw-bar that the out end may not fall too low to enter another draw-bar, and also serves to strengthen the link.

To more fully explain the object of my invention and operation of the same, reference is made to Fig. 2, showing an inside sectional view through the line *x x*.

Let B represent the flare of the draw-head; D, the coupling-pin; *y*, the lower or catch pin. In order to couple two cars, supposing the link K (the right-hand end) to rest in the draw-head of another car, then by moving the link or car toward the draw-head A the link enters at B, rises on the flare, and after passing the coupling-pin hole O strikes the top of

the catch-pin *y* and moves it off the point on which the lip catches, which immediately falls with the rack or frame H G, Fig. 1, together with the pin D, which passes through the link, and thus couples the cars without the aid of any person. To prevent the catch-pin *y* from falling down by sliding below the lower line of the draw-head I make an oval-shaped rising on the draw-bar through which it passes, as heretofore described.

In order to uncouple the cars it is only necessary to raise the pin D, which draws the rack or frame up, causing the pin *y* to catch on the edge of the hole by means of a steel spring pressing against the back of pin *y*. Said spring is represented by the small red line at *m*, and is fastened and held in its place by a nut-screw or its equivalent at the point *n*. The top of the pin being beveled off, as shown

at *y*, allows the link to slide out over it, uncoupling the cars, and leaving it again ready to couple when the link comes in contact with the pin at *y*.

I claim as new and desire to secure by Letters Patent—

1. The arrangement of the draw-head A, with its second V-shaped hole or opening on the bottom, the grooves *dd*, in connection with the pin, sustaining-bars H G, and rods E F, substantially as shown and described.

2. The arrangement of the top beveled pin or catch *y* and the spring *m*, substantially as described and set forth.

J. H. PARSONS

Witnesses:

C. N. WILCOX,  
L. JAY CARREL.