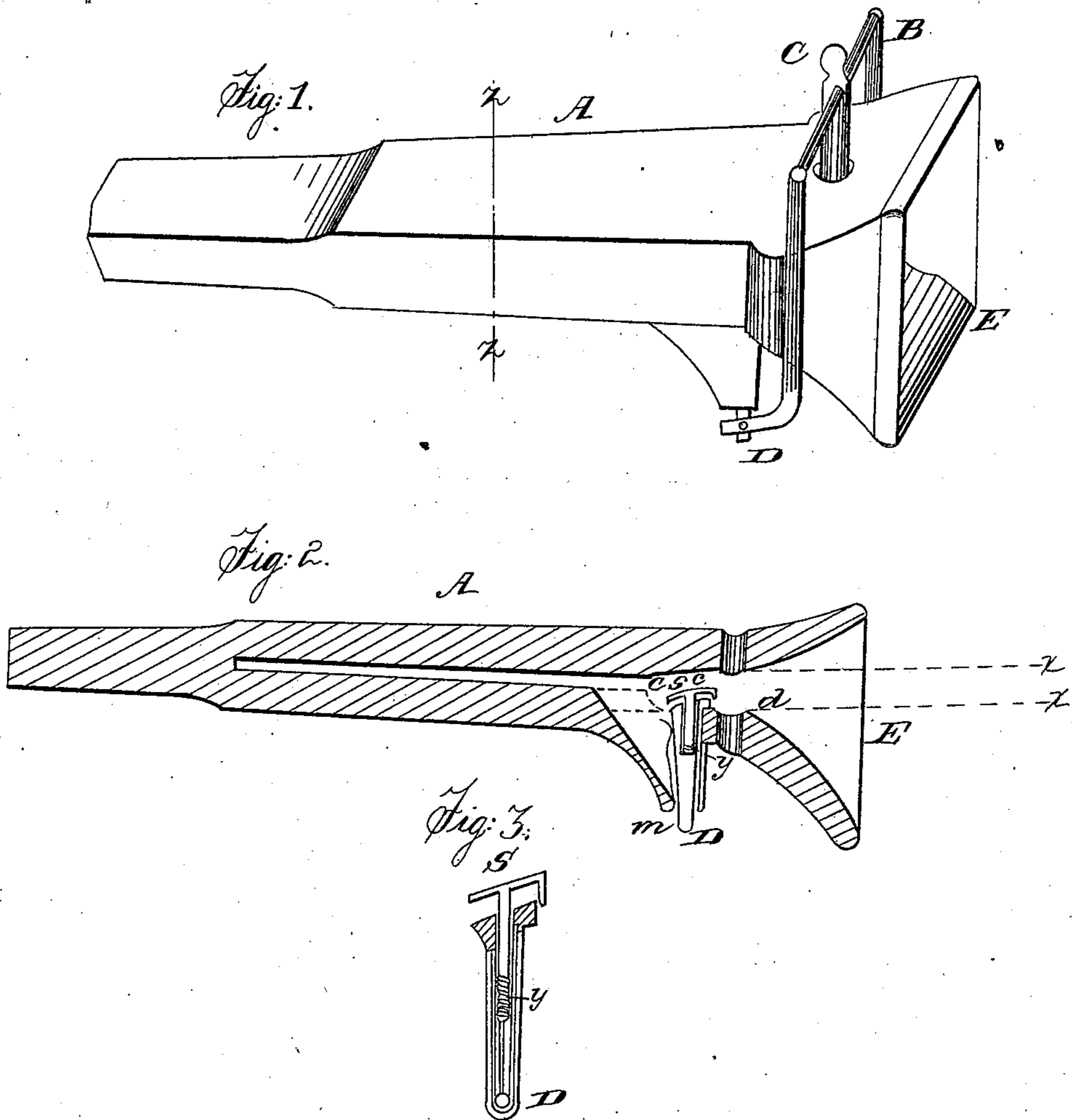


J. H. PARSONS.
Car Coupling.

No. 62,772.

Patented Mar. 12, 1867.



Witnesses

B. F. Wheat
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J. H. PARSONS, OF QUINCY, MICHIGAN.

Letters Patent No. 62,772, dated March 12, 1867; antedated March 1, 1867.

IMPROVED CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. H. PARSONS, of Quincy, in the county of Branch, and State of Michigan, have invented a new and useful Improvement in Railroad Car Draw-Heads; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 shows a perspective view, and

Figure 2, a sectional view through the lines *x x*.

Figure 3 is a detached sectional view.

My invention consists more especially as an additional improvement to my improved car-coupling, patented February 13, 1866, No. 52,592, and to which reference is respectfully made; but agreeably to law I herewith make a separate application, the drawings herewith showing more particularly the improvements I now claim.

Let fig. 1 represent a perspective view of a draw-head for coupling railroad cars, which is made of cast iron in any of the ordinary ways, but with sufficient flare at the opening E that the link of an adjoining car may enter even if one draw-head is a little higher than the other. On the bottom of draw-head is a semi-cone-shaped guard cast on the draw-head. The hole in this guard is shaped very much like the letter V, the front side being straight up and down and the back side slanting back into the alley in the draw-head, where the head of the bolt rests that holds the draw-head to the car. The iron frame or rack B, to which are attached the coupling-pin C and catch-pin D, is made to slide up and down in grooves cut in the side of the draw-head, fig. 2. The catch-pin D has free play in the V-shaped hole. On the upper end and front side of this catch-pin is formed a projection or lip to catch on the edge of the hole in which it plays. The front side of the catch-pin is straight up and down, but bevels off from the top down the back side, making the top an inclined plane. Suppose the rack B to slide down, and the coupling-pin C is through the link, and the cars are coupled. Then, by raising the pin C to uncouple it draws up the rack, and the catch-pin D, which catches on the edge of the hole and holds the rack up. The bevel on the catch-pin allows the link to slide out and over it, but by shoving the link in it comes in contact with the catch-pin and shoves it off the lip and causes the rack to slide down, and the coupling-pin C passes through the link, and the cars are coupled without the aid of any person. This is in substance a description of patent granted to me February 13, 1866.

The improvement I claim is as follows, and shown in figs. 2 and 3.

Figure 2, letter A, represents a sectional view through the lines *z z*.

First, I construct the inside of the draw-head to slant inward or form an inclined plane from the front side of the coupling-pin hole at *c* to the back end, or to the shoulders, against which the link strikes. The incline is shown by the dotted lines *x x*. My object in this is that when a link rests in the draw-head it may rest nearer a horizontal position and be much more sure to enter an adjoining car. It will be seen that the space for the link to play in is the same; but by the back end of the link resting against the upper side at *c* and the front or middle of link at *d*, it keeps the projecting end of the link in a much better position to enter another car than as in the ordinary way, where the opening is straight or flaring on both sides.

Second. My second improvement is in the catch-pin D, when the pin is up or set for coupling, as represented in fig. 2 of my patent bearing date February 13, 1866. There are certain positions in which the link may rest, where the draw-heads vary in height, that the link will not always hit the catch-pin in entering the draw-head but slide in above it. To obviate this, I construct in the catch-pin an additional pin or slide, as shown at S, fig. 2, using the same shaped pin as heretofore. I drill or otherwise make a hole of sufficient size in the upper end of this catch-pin part way through, and in this hole put a slide or pin of similar shape made to play up and down with ease. At the bottom of the hole I insert a small spiral spring, which shoves the inside pin up but will allow of its being pressed down, so that the top of each is level, or nearly so. This pin is more clearly represented by the fig. 3. The top of this inside pin or slide is made somewhat like a hook, the front side being shaped so that it will slide down over the larger catch, the projection of small pin being bent down, as represented, so that when the inside pin is shoved up the front side shows no opening between the two pins. The double lip on this inside pin is not intended to serve as a catch on the edge of hole but simply to cover the opening that would be caused by the inside pin sliding out. To prevent it from sliding clear out, I cut a slot

through the larger pin about one and one-fourth inch long and put a small key or pin through the inside pin, which allows it to play up and down a sufficient distance for the purpose required, as shown at *y*, fig. 3.

Its operation is thus: In fig. 2, suppose the rack to be down and the link in the draw-head. In order to uncouple the cars, raise the rack; this raises the catch-pin *D*, which catches on the edge of the hole, as heretofore described. The second or inside catch slide pin, in coming up against the link, presses down and remains so until the link is pulled out. The top being bevelled off, as shown, there is nothing for the link to catch on, and consequently slides out as in the ordinary manner. Immediately as the link is pulled out the inside catch-pin *S* springs up so far that when the link again enters the draw-head to couple it must hit the catch-pin, which causes the coupling-pin *C* to pass through the link as shown. The catch-pin is entirely protected from being jammed, or otherwise injured, by the link, by sliding back in the V-shaped hole which extends into the alley in the draw-head back of the shoulders where the link strikes. A spring, *m*, is fastened to the raised casting on bottom of draw-head (represented by a red line) pressing against the catch-pin and causes it to catch on the edge of the hole whenever the rack is raised.

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

The use of the spiral spring *y*, and the slide hook pin *S*, or its equivalent, substantially as described.

J. H. PARSONS.

Witnesses:

ORRIN M. BOWEN,
JOHN W. MASON.