(No Model.)

P. SWEENEY.

CAR COUPLING.

No. 515,803. Patented Mar. 6, 1894.

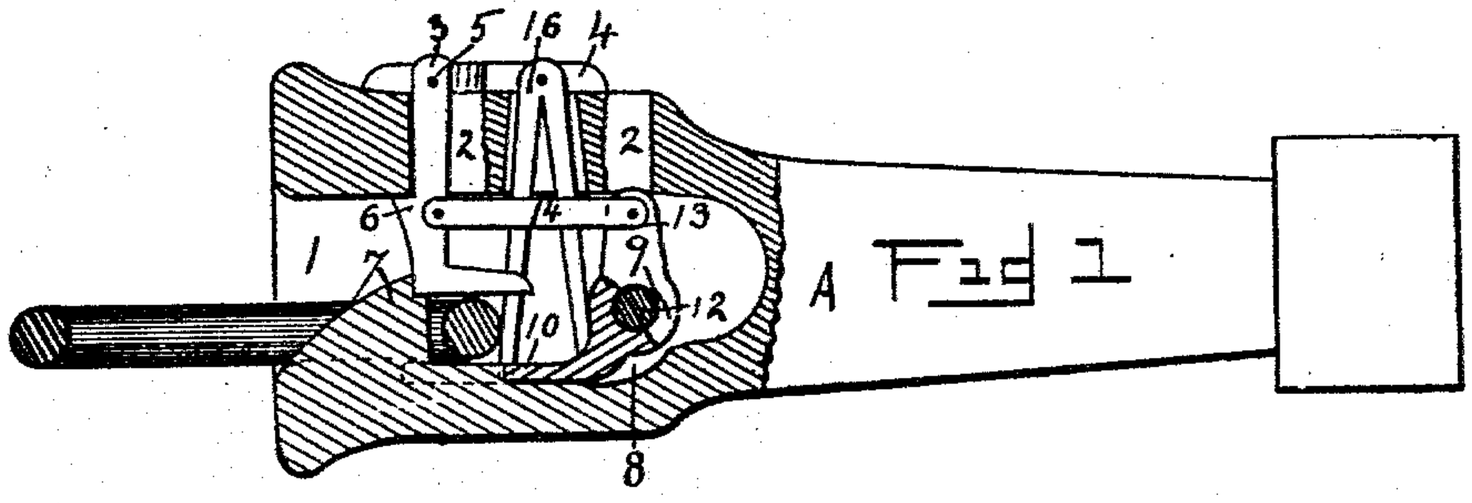

Fig 1

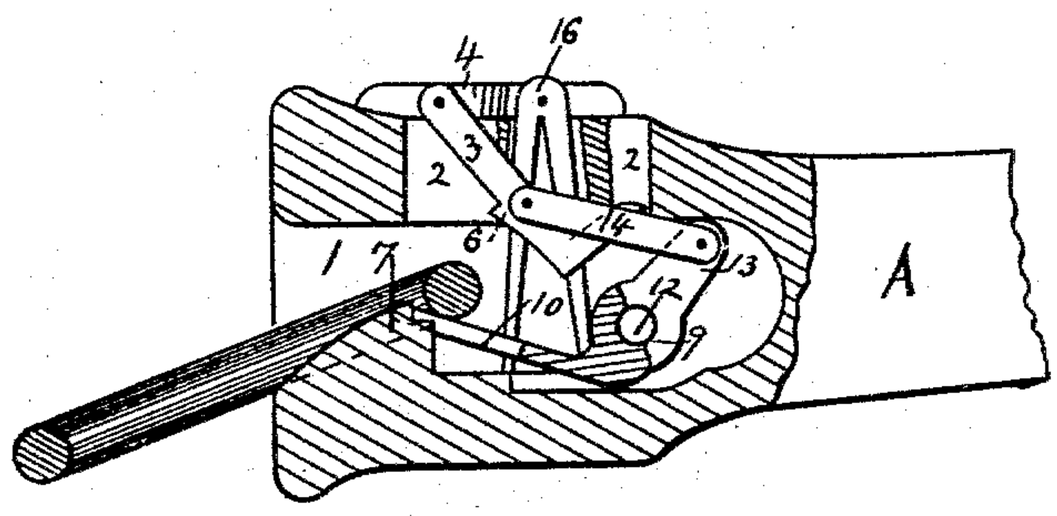

Fig 2

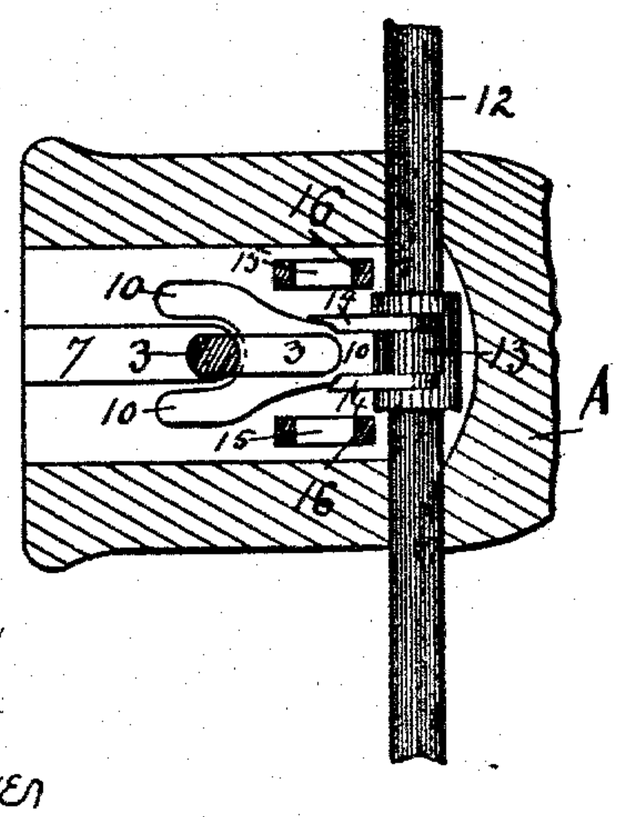

Fig 3

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PATRICK SWEENEY, OF OMAHA, NEBRASKA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 515,803, dated March 6, 1894.

Application filed July 26, 1893. Serial No. 481,582. (No model.)

To all whom it may concern:

Be it known that I, PATRICK SWEENEY, of Omaha, in the county of Douglas and State of Nebraska, have invented certain useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention has relation to a new and novel improvement in car couplings, and comprises a coupling that will automatically receive the link, and which may be operated from the side or the top of the car to release said link, as will be described more fully hereinafter.

In the accompanying drawings Figure 1 shows a central sectional view with parts broken away of my improved coupling. Fig. 2 shows the instrumentalities as arranged at the instant the link is thrown from the coupling, while Fig. 3 shows a top view of the instrumentalities with parts removed.

A represents a draw head of any suitable size and material and of the usual configuration, which is provided with the interior link chamber 1, having a connecting slot 2, which enters from above into the chamber. This narrow slot 2, extends a suitable distance lengthwise and centrally within the coupling and is adapted to contain the approximately L shaped shoe 3, as shown. This shoe is preferably of metal, and of a suitable width and is adapted to work within this narrow slot 2. Above and adjoining the slot 2, I have provided the drawhead with a web 4, which is adapted to give pivotal support to the shoe, 3, by means of the pin 5, which is secured to said shoe and works within suitable openings of the web 4. This shoe 3 is in the shape of the letter L and is provided upon the rear with the projecting shoulder 6, which is adapted to work below the upper portion of the coupling and so offer a riding surface for said lever.

Centrally within the coupling and extending from the lower portion thereof is an upwardly curved nosing 7, which is provided at its highest point with an angular seating within which the lower portion of the shoe 3, is adapted to work, as is clearly shown in Fig. 1. It is below the extending portion of this lever 3, that the link rides, the shoe working within the seating of the nosing and against the shoulder 6, so that it is securely held within the drawhead.

Working within the lower portion of the drawhead, which is provided with a suitable seating 8, is the bifurcated link lift 9, which is provided with the two extending stems 10, which are adapted to ride below the link and are arranged to work within the depression 8, within the bottom of the drawhead. These arms 10, extend from the hub 9, of the link lift, which is supported within the drawhead by means of the main operating bar 12, passing through the drawhead and provided at the end with any suitable cranks or levers, so that said link lift can be operated from either side or top of the car or even from the engine with proper connections.

13 represents an upwardly extending arm provided with a suitable opening and secured to the shoe 3 by means of the two small metallic bars 14, which pivotally secure the lift and shoe.

The bars 12, extend through a suitable opening within the side of the drawhead, and when this bar 12 is turned to one side it carries the link lift 9, upward, as shown in Fig. 2, at the same time draws the shoe 3, out of the way so that the link may either readily enter or be thrown from the draw-bar.

Positioned upon either side of the link lift 9, in passing through suitable openings of the top of the drawhead and working into two suitable depressions 15, within the lower portion of the drawhead are the leaf springs 16, 16, as shown in Figs. 2 and 3. It is against these springs 16, which are pivotally secured at the upper ends against a web 17, that the link in entering is forced and so offers a means for preventing the violent jarring of the links as they enter into the couplings.

The operation of my device is as follows: In Fig. 1, for instance, where the instrumentalities are shown in their normal position and at rest, the pin would enter and strike the nosing 7, of the coupling and be guided upward until it engaged the shoe 3, which would be forced out of the path so that the link could ride over the nosing and drop into

and around this nosing, in which position the shoe 3, would promptly drop into its original position, and so securely lock within the drawhead.

It will be noticed that the nosing 7, forms part of the drawhead proper and is of sufficient strength to withstand any necessary strain. The link also in working upward would work against the shoe, and this shoe being given ample purchase by means of the shoulder 6, would resist any movement of the link in the upper direction. Now, if it should be desired to remove the link, it would be simply necessary to turn the rod 12, backward, to lift the link lift 8, upward, which would promptly force the link out of position and permit it to fall without the drawhead.

The arrangements of the instrumentalities show a draw-head which will meet all the requirements and being simple of construction and readily operated.

Now, having thus described my said invention, what I claim as new, and desire to secure by United States Letters Patent, is—

1. In a draw-head provided with a suitable link opening having a central upwardly projecting nosing and a communicating slot entering from above, the combination of the following instrumentalities, to wit: a pivoted hub provided with one or more projecting arms adapted to rest within the bottom of the drawhead and below the link and provided with an upwardly extending arm, a gravity actuating shoe pivoted centrally within said draw-head and adapted to work against the nosing of said draw-bar, bars pivotally connecting said shoe to the arm of said hub, and projecting rods passing beyond the drawhead proper, by means of which said link lifting hub is operated to actuate said gravity actuating shoe, all substantially as and for the purpose set forth.

2. In a drawhead provided with a central opening having an upwardly projecting nosing and a communicating slot extending into the link opening of the draw-bar from above, the combination of the following instrumentalities, to wit: a hub pivotally secured within said drawhead, provided with suitable extending arms adapted to lie within the bottom of said drawhead, said hub being provided with an upwardly extending arm, of a shoe pivotally secured within the central slot within the upper portion of said drawhead and provided with a shoulder adapted to work below the lower portion of said drawhead, bars connecting said shoe to the arm of said hub and two leaf springs positioned within said drawhead and in front of said pivoted hub, and an operating bar or bars for actuating said link lifting hub, all substantially as and for the purpose set forth.

3. In a drawhead the combination of the following instrumentalities, to wit: the chamber 1, communicating with the slot 2, the gravity actuating shoe 3, pivoted within said slot 2, and provided with the projecting shoulder 6, said shoe being adapted to work within a shoulder of the nosing 7, the hub 9, provided with extending arms 10, adapted to work within a depression 8, of the lower portion of said drawhead and having an upwardly extending arm 13, the bars 14, 14, pivotally securing said arm 13, to the gravity actuating shoe, the springs 16, positioned in front of said hub 9, the operating bars, 12, all substantially as shown and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

PATRICK SWEENEY.

Witnesses:
ALEXANDER MOORE,
GEO. W. SUES.