(No Model.)

C. S. MAYNARD.

CAR COUPLING.

No. 332,353. Patented Dec. 15, 1885.

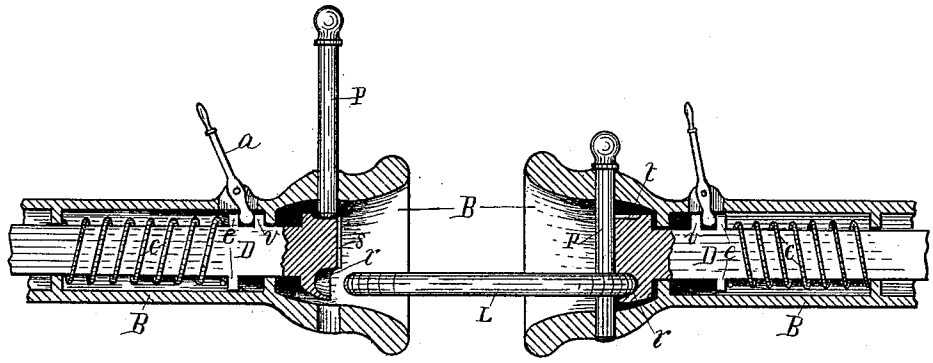


Fig. 1

Fig. 2

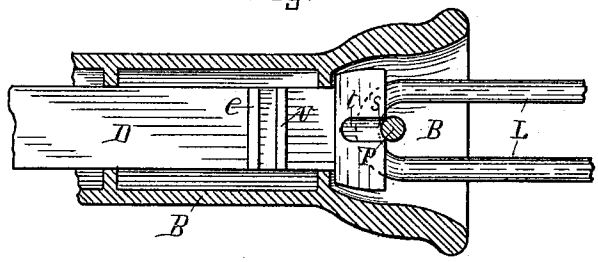
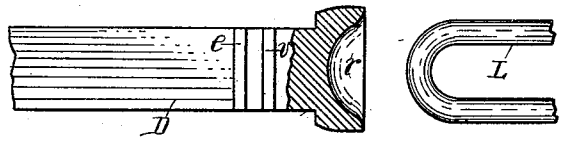


Fig. 3



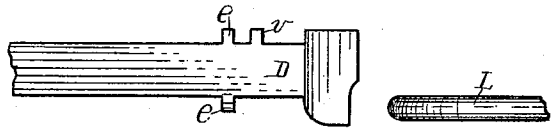


Fig. 4

Witnesses.
John C. Perkins.
E. W. Brown.

Inventor.
Charles S. Maynard.
By Lucius C. West.
Atty.

UNITED STATES PATENT OFFICE.

CHARLES STUART MAYNARD, OF PAW PAW, MICHIGAN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 332,353, dated December 15, 1885.

Application filed August 29, 1885. Serial No. 175,626. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. MAYNARD, a citizen of the United States, residing at Paw Paw, county of Van Buren, State of Michigan, have invented new and useful Car-Couplings, of which the following is a specification.

My invention relates to car-couplings in which the ordinary or commonly-employed draw-heads, coupling-pins, links, and automatically-operating means for supporting and releasing the pin are used in conjunction with each other; and it has for its object certain improvements in construction and arrangement designed to facilitate the operation, all substantially as below described and claimed.

In the drawings forming a part of this specification, Figure 1 is a longitudinal section through the center of the draw-heads, the coupling means being in side elevation, except the ends of the link and pin supports, which are also in section; Fig. 2, an enlarged longitudinal and horizontal central section of one of the draw-heads, looking on top of the link and its support; Fig. 3, a top view of details in Fig. 2, showing the end of the link and pin support in horizontal section; and Fig. 4 is a side elevation of Fig. 3.

Referring to the drawings and the letters of reference marked thereon, B are the commonly-employed draw-heads; L, the link, and P the coupling-pin, which passes down through a vertical hole of the head and through the loop end of the link. The automatic supports for the pin P which I employ are shown at D. Such supports have heretofore been employed playing endwise under a spring pressure or control; but it will be observed that I have peculiarly adapted them for supporting the pin P and guiding the same in its descent, and that I have also so formed the supports D that they, when under spring-pressure, support the link in a horizontal position, when coupled with one of the heads, to enter the other head when the cars which are to be coupled come together.

In Figs. 1 and 2, *t* is a hollow cavity, in which the lower end of the pin P rests when supported by the support D. (See left-hand part of Fig. 1.) This prevents danger of the pin tilting over out of a true vertical position from being top-heavy. This recess registers with or opens into a central vertical groove, S, in the end of the support D, which the pin follows in its descent, thus guiding it through the loop of the link and through the lower pin-hole in the head. In the under side, at the end of the support D, is formed a half-round and concave recess conforming to the contour of the end of the link, the lower confine of this recess coming well under the end of the link. (See right of Fig. 1.) By this means, when the end of the link L is coupled with the head B, as here shown, with the pin P down, the expansive pressure of the spring *c* against the lugs *e* of the support D causes such a pressure of the walls of the recess *r* against the end of the link and such a pressure of the link against the pin P that the link is supported in the horizontal position shown in Fig. 1, ready to enter the approaching head at the left of said figure and automatically couple with it. As the draw-head at the left approaches and comes in contact with the free end of the supported link the concussion forces the support D back from under the supported pin, and the pin freed from the recess *t* falls downward through the guide-groove S, as before explained. The recess *r* in receiving the free end of the link performs still another office—that of preventing the free end of the link from being tilted vertically or laterally out of position when the cars come together and the end of the link comes in contact with the end of the support D.

In Fig. 1, *a* are levers fulcrumed in the upper wall of the head B, their lower ends, which extend into the chamber of said draw-head, forming engagement with the upper side of the supports D by insertion between the lugs *e v*. By this means the supports D are forced back and held when desiring to pull the coupling-pins to uncouple the cars or to remove the link L.

Having thus described my improvements, what I claim as new is—

In a car-coupling employing the ordinary draw-head, coupling-pin, and link, a sliding block which is forced forward under spring-

pressure, having in its forward end an open transverse recess to receive and sustain the link in a horizontal position by the clamping of the end of the link between the pin and the walls of the recess, and a lever to release said clamping of parts to free the pin, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

CHARLES STUART MAYNARD.

Witnesses:
EDWIN M. RUSSELL,
A. ROBINSON.