

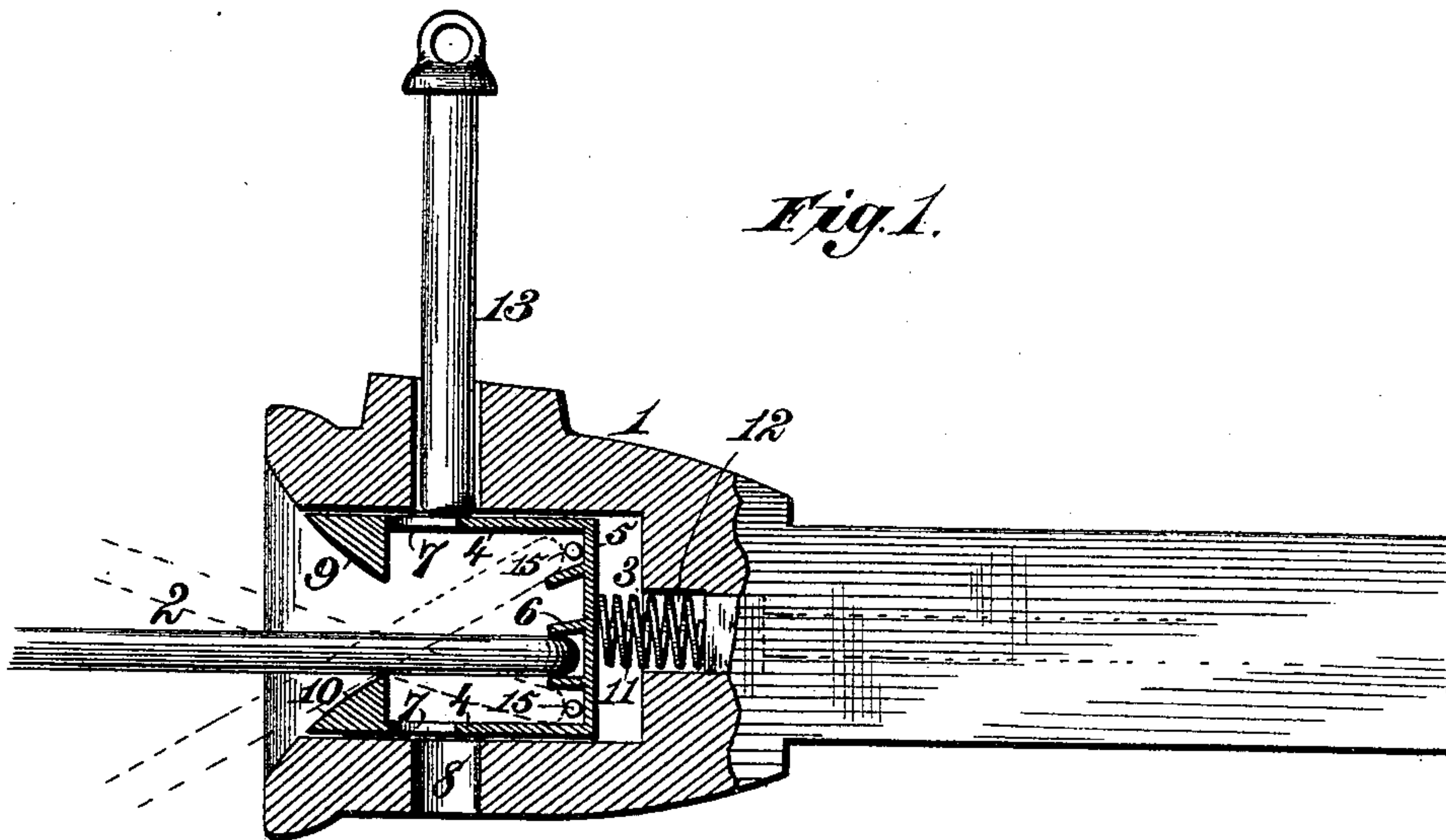
(No Model.)

A. B. EWING.

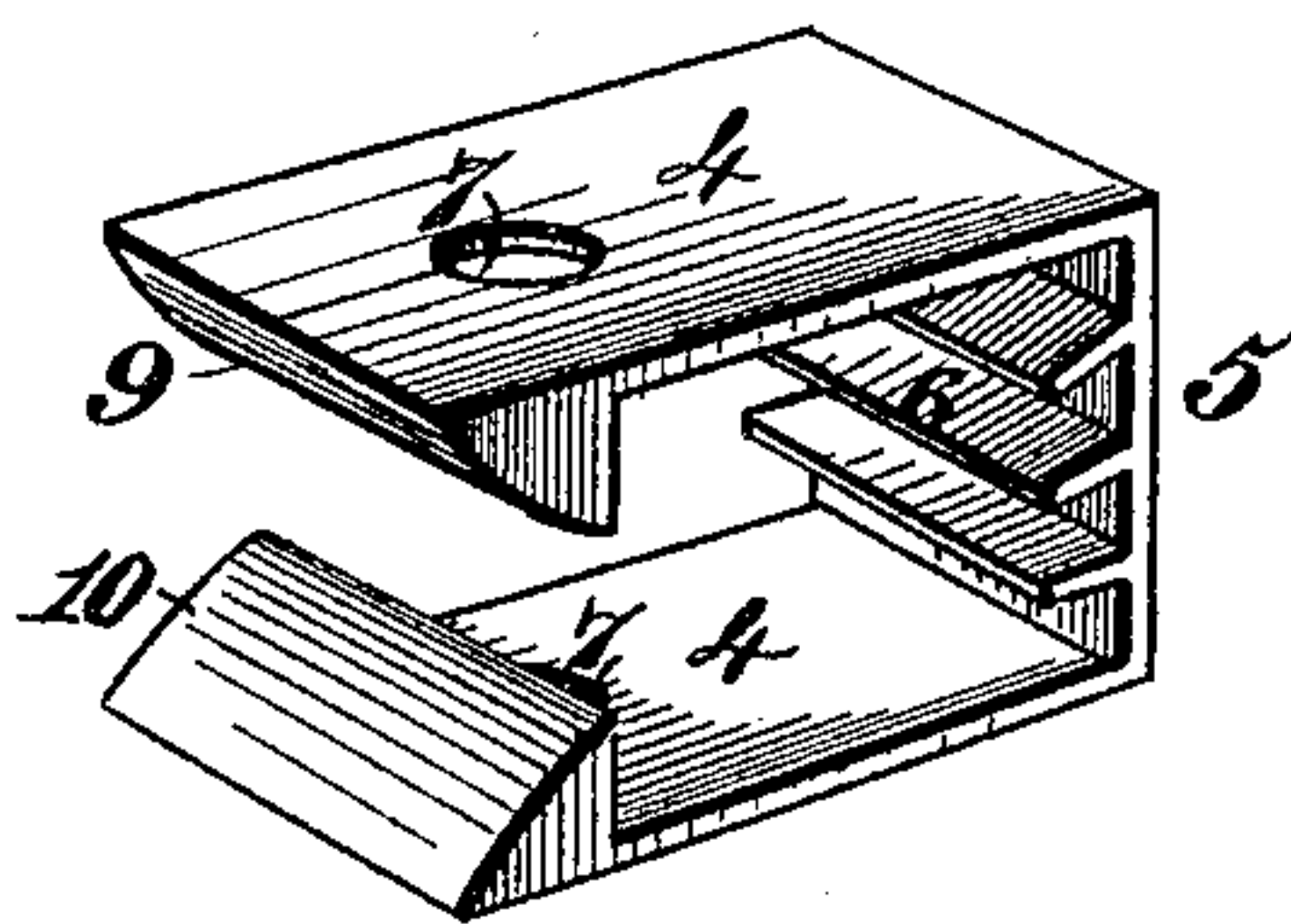
PIN SUPPORT AND LINK ADJUSTER FOR CAR COUPLINGS.

No. 370,184.

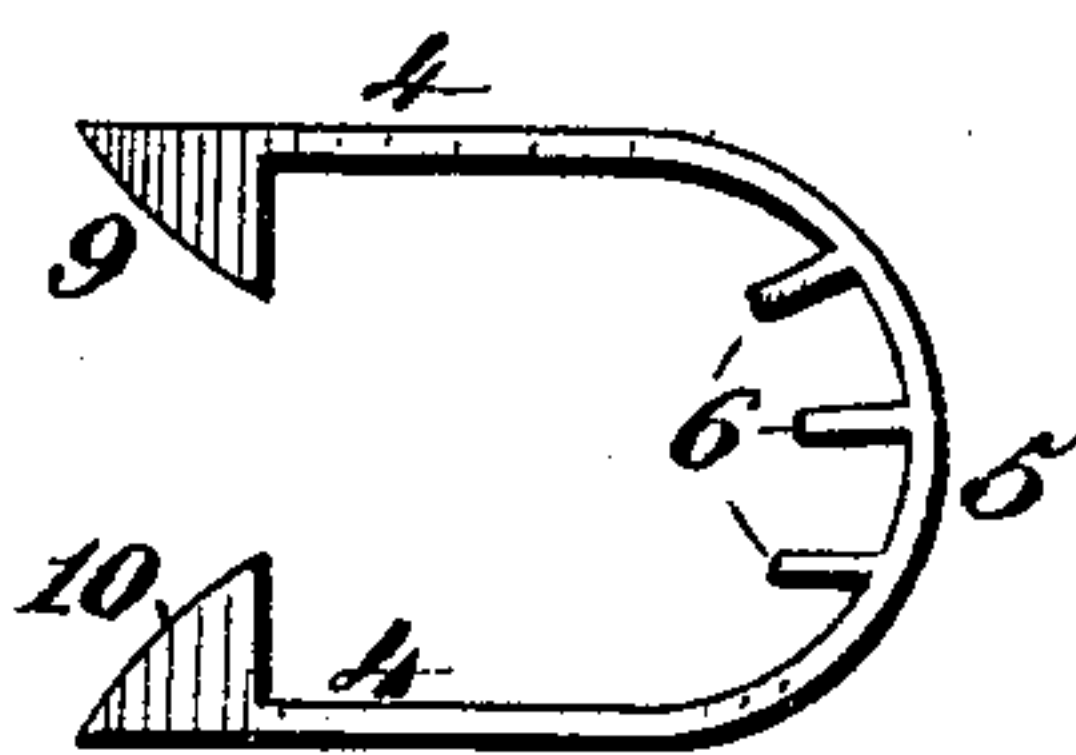
Patented Sept. 20, 1887.



*Fig. 2*



*Fig. 3*



*Witnesses.*

*Robert Emmett.*

*J. A. Rutherford*

*Inventor.*

*Alvan B. Ewing.*

*By*

*James L. Norris.*  
*Atty.*



# UNITED STATES PATENT OFFICE.

ALVAN B. EWING, OF LEWISBURG, TENNESSEE.

## PIN-SUPPORT AND LINK-ADJUSTER FOR CAR-COUPPLINGS.

SPECIFICATION forming part of Letters Patent No. 370,184, dated September 20, 1887.

Application filed February 17, 1887. Serial No. 227,914. (No model.)

*To all whom it may concern:*

Be it known that I, ALVAN B. EWING, a citizen of the United States, residing at Lewisburg, in the county of Marshall and State of Tennessee, have invented new and useful Improvements in Pin-Supports and Link-Adjusters for Car-Couplings, of which the following is a specification.

This invention relates to car-couplings, and has for its object to provide a novel pin support and link-adjuster adapted to ordinary draw-heads in common use for automatically coupling the cars by the usual link and pin and adjusting the link to couple with draw-heads of varying height. This object I accomplish by the features of construction hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of an ordinary draw-head provided with my invention; Fig. 2, a detached perspective view of the pin-support and link-adjuster adapted to one form of draw-head, and Fig. 3 a similar view showing the device formed to fit a differently-shaped draw-head.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, where—

The numeral 1 indicates an ordinary draw-head such as now in common use, having the usual square or similar shaped opening in its forward end to receive the coupling-link 2 and provided with the rear wall or shoulder, 3.

The pin-support and link-adjuster is composed of two horizontal parallel arms, 4, arranged one above the other and connected at their rear ends by a vertical plate, 5, having on its outer face a series of transverse projecting flanges, 6, arranged in a series one above the other. The horizontal arms adjacent to their forward ends are provided with orifices 7, adapted to coincide with the pin-openings 8 in the top and bottom walls of the draw-head, and the outer extremity of each arm is provided on its inside with a transverse rib, the one, 9, on the upper arm projecting downward and the one, 10, on the lower arm projecting upward. The arms 4 and plate 5 are of such construction as to nicely fit and slide in the opening in the front end of the draw-head, as

shown in Fig. 1, and this form or shape of the device will be changed or varied according to the shape of the opening in the draw-head. For instance, in Fig. 3 I have shown the connecting-plate 5 as curved or rounded to fit a similar-shaped rear wall in a draw-head. For other shaped openings in draw-heads the arms and connecting-plate will be correspondingly formed.

A spring, 11, is placed between the rear wall or shoulder, 3, of the opening in the draw-head and the inner face of the connecting-plate 5, which spring is preferably arranged at one end in a seat, 12, in said wall or shoulder. The spring acts to advance the pin-support so that the openings 7 in its arms 4 are placed out of coincidence with the pin-openings in the draw-head, when the pin 13 will be supported by a solid part of the upper arm 4. An entering-link strikes the connecting-plate 5, the spring 11 yields, and the pin-support moves rearward until the orifices 7 are brought into coincidence with the pin-openings 8, whereupon the coupling-pin 13 will drop and thus automatically couple the cars.

Occasion often arises when it becomes necessary to couple one car with another in which one draw-head is higher or lower than the other, and this is effected in a very simple and efficient manner by my invention. If the end of the coupling-link be set under the bottom one of the flanges 6 on the connecting-plate 5, the outer end of the link will, by resting upon the transverse rib 10 on the lower arm 4 be elevated above a horizontal line to couple with a higher draw-head. If the end of the coupling-link is rested upon the upper one of the flanges 6, the outer end of the link will by resting on said rib 10 be depressed below a horizontal line to couple with a lower draw-head. If the draw-head be of the same height, or approximately so, the link is set on a level, as will be obvious and as shown by full lines in Fig. 1. In this figure I have illustrated by dotted lines the inclinations of the coupling-link before mentioned.

By providing each arm 4 with a rib, as set forth, the device is rendered reversible, and if the spring 11 be omitted the rib on the top arm serves as a finger-piece by which to draw the pin-support forward and thus set it by hand



to support the pin for automatic couplings. I prefer, however, to employ a spring to advance the pin-support.

It will be obvious that by providing the transverse rib or ribs on the forward end of the arms 4 and the flanges 6 on the connecting-plate 5 of these arms, a pin-support and link-adjuster is provided that can be applied to any draw-head already in use where the coupling is effected by a link and pin, and this can be accomplished without changing the construction of or altering the draw-head.

The transverse ribs upon the ends of the arms 4 are beveled off, as shown in Fig. 1, to correspond with the flare or inclination of the outer end of the draw-head, whereby the coupling-link will easily enter without displacing the pin-support.

Pins 15 are set in the sides of the draw-head and project in front of the wall 5, to prevent the withdrawal of the pin-support from the draw-head.

Having thus described my invention, what I claim is—

1. A pin-support and link-adjuster for the ordinary draw-heads of cars, consisting of the upper and lower arms, one of which is provided with a transverse elevation or rib at its forward extremity, and the rear connecting-plate having a series of transverse flanges, substantially as described.

2. A pin-support and link-adjuster for the ordinary draw-heads of cars, consisting of the upper and lower arms, each having the inside of its front extremity provided with a transverse rib, and the rear connecting-plate having a series of transverse flanges, substantially as described.

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

ALVAN B. EWING.

Witnesses:

S. D. DAVIS,  
J. A. EWING.