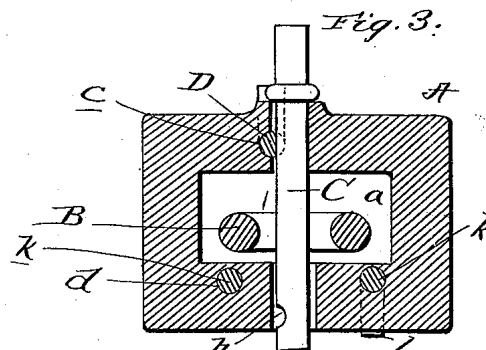
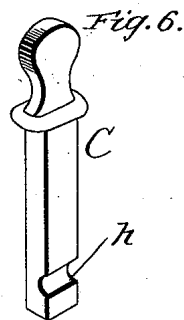
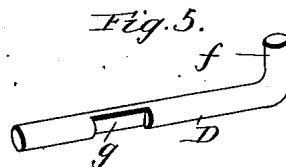
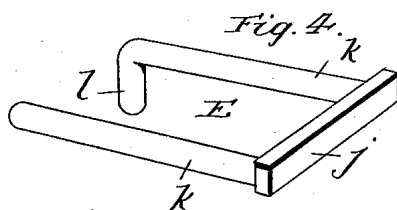
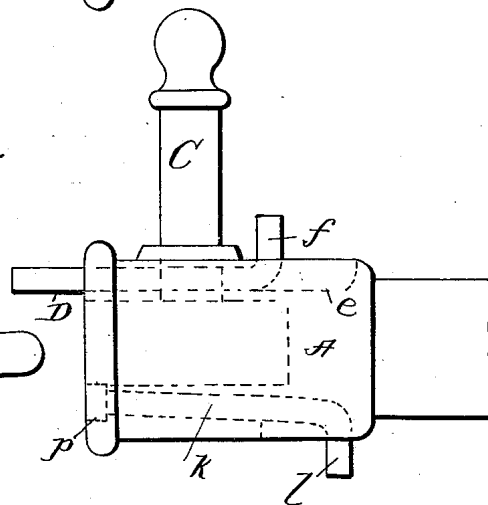
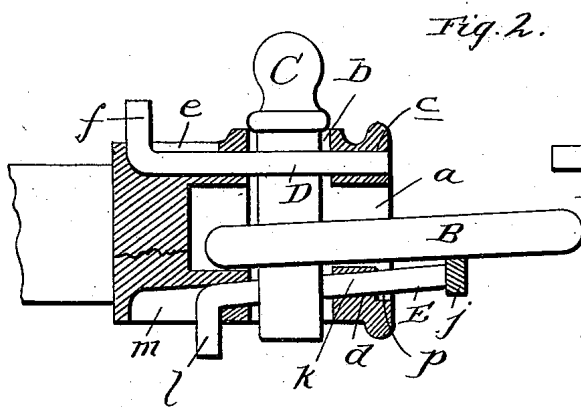
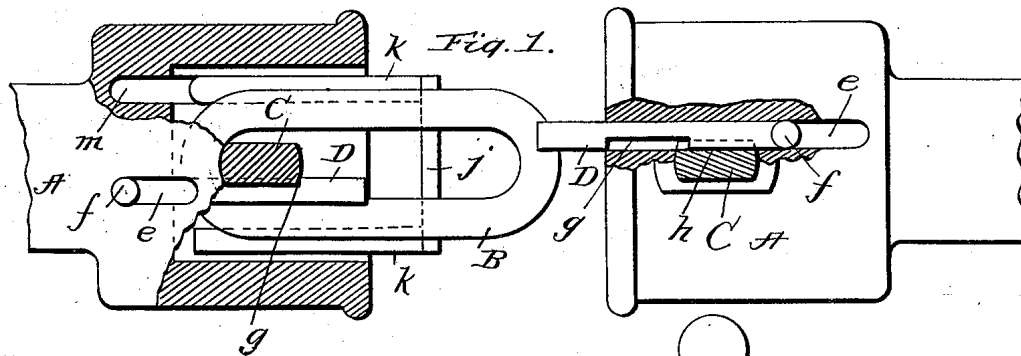


(No Model.)

M. LEWIS.
CAR COUPLING.

No. 514,942.

Patented Feb. 20, 1894.



Witnesses:
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N. H. Catheine

Inventor
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UNITED STATES PATENT OFFICE.

MORGAN LEWIS, OF LARAMIE, WYOMING.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 514,942, dated February 20, 1894.

Application filed August 8, 1893. Serial No. 482,706. (No model.)

To all whom it may concern:

Be it known that I, MORGAN LEWIS, a citizen of the United States, residing at Laramie, in the county of Albany and State of Wyoming, have invented certain new and useful Improvements in Car-Couplers; and I do declare the following to be 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.

My invention has relation to improvements in car couplers, and it has for its general object to provide a coupler of a simple, durable and highly efficient construction and one which will obviate the necessity of a brakeman remaining between the cars in order to connect the same.

With the foregoing ends in view, the invention will be fully understood from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1, is a plan view of my improved coupler with the drawheads partly in section so as to better illustrate the link and pin and the devices for adjusting the same. Fig. 2, is a side elevation of the coupler with one of the draw heads in section. Fig. 3, is a transverse section of one of the draw heads. Fig. 4, is a perspective view of the link lifter. Fig. 5, is a similar view of the pin supporting rod, and: Fig. 6, is a perspective view of the pin.

Referring by letter to the said drawings:—A, indicates the draw-heads of my improved coupler, which may be of the ordinary or any approved general form. These draw heads are respectively provided with the usual chamber or mouth *a*, to receive the link B, and with the usual vertically-disposed aperture *b*, to receive the pin C, and they are also respectively provided with a longitudinal bore as *c*, which communicates with the pin aperture as better shown in Fig. 1; and with the longitudinal inclined bores *d*, which are arranged upon opposite sides of the pin aperture *b*, and in a plane below the bore *c*, as shown. The bore *c*, is arranged adjacent to the top of the draw head and merges at its inner end into a longitudinal slot *e*, formed in the upper side of the draw head, and it is designed to receive the pin supporting rod D, which is designed to slide as will be presently described. This rod D, may have a head at

its outer end; and it is provided at its inner end with an angular branch *f*, which is designed to move in the slot *e*, and serve as a handle, and it is also provided at an intermediate point of its length with a recess *g*, which is of a length slightly greater than the width of the pin C, as illustrated. By this construction it will be seen that when the rod D, is extended, as shown in Figs. 1, and 2, and the pin C, is elevated, the unrecessed portion of the rod will rest in the recess *h*, in the side of the pin adjacent to the lower end thereof and will support the pin so that it may take through the link when it enters the draw head. When the two draw-heads come together, it will be perceived that the rod D, will be pushed rearwardly so as to bring the recess *g*, into alignment with the pin and release the pin and permit it to drop through the link and effect the coupling. In some cases, the pin aperture *b*, may be made of such a width that when the unrecessed portion of the rod D, rests in such aperture, there is not sufficient space for the pin to pass, and the pin may consequently be supported upon the said rod and the recess *h*, in the side of the pin be dispensed with.

In order to support a link in one draw head in such a position as to enable it to enter another draw-head, I provide each draw head with an adjustable link lifter as E. These link lifters respectively comprise a cross bar *j*, which is designed to engage the underside of a link as shown in Fig. 2, and two rearwardly extending rods *k*, which are designed to move in the bores *d*, of the draw head and are provided at their rear ends with angular branches *l*, which are designed to move in the slots *m*, in the draw head. By the provision of the lifters E, it will be noticed that a trainman may conveniently adjust and adjustably fix the link of one draw head in such a position that it will take into another draw head when the cars come together, and consequently it will be perceived that it is unnecessary for the trainman to remain between the cars and incur the danger of being mashed when they come together.

In the practical operation of my coupler, the pin of the draw head of one car is supported through the medium of the rod D, as shown in Fig. 2, and the link of the draw

head of the other car is held in its elevated position by the link lifter E. Consequently it will be seen that when the cars come together, the coupling will be automatically effected by the entry of the link into the opposite draw head and the dropping of the pin through said link as before described. The rods D, and link lifters E, will not interfere with the draw heads coming together, since the bars D, will be pushed entirely within their respective draw heads while the bars j, of the link lifters will be seated in the recesses p, formed in the faces of the draw heads.

It will be noticed from the foregoing description taken in conjunction with the drawings that my coupler is very simple and efficient for the purposes stated and that it is very strong and is well able to withstand the shocks and strains to which couplers are ordinarily subjected.

Having described my invention, what I claim is—

1. A car coupler comprising a draw head having a vertically-disposed pin aperture and also having a longitudinal bore c, communicating with the pin aperture and disposed in a plane slightly below that of the top of the draw head, and longitudinal bores d, arranged below the bore c, and upon opposite sides of the pin aperture, a slidable pin supporting rod arranged in the bore c, and a link lifter having the cross bar j, and the rods k; the said rods k, being arranged and adapted to move in the bores d, all substantially as and for the purpose set forth.

2. A car coupler comprising a draw head having a vertically-disposed pin aperture and also having a longitudinal bore c, communi-

cating with the pin aperture and disposed in a plane slightly below that of the top of the draw head and longitudinal inclined bores d, arranged below the bore c, and upon opposite sides of the pin aperture, a pin having a recess h, in its side adjacent to its lower end, a slidable pin supporting rod arranged in the bore c, and a link lifter having the cross bar j, to engage a link and the rods k, arranged and adapted to move in the bores d, all substantially as and for the purpose set forth.

3. In a car coupler, the combination of a draw head having a vertically-disposed pin aperture and also having a longitudinal bore c, communicating with the pin aperture and disposed in a plane slightly below that of the top of the draw head, a slot e, at the rear end of the bore c, the longitudinal, inclined bores d, arranged below the bore c, and upon opposite sides of the pin aperture, and the slots m, at the rear ends of the bores d, a pin arranged in the vertically-disposed pin aperture, a slidable pin supporting rod arranged in the bore c, and having the recess g, at an intermediate point of its length and also having the angular branch f, adapted to move in the slot e, and the link lifter comprising the cross bar j, and the rods k, arranged in the bores d, and having angular branches l, at their rear ends, all substantially as and for the purpose set forth.

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

MORGAN LEWIS.

Witnesses:

EDWIN A. WILKINSON,
G. J. BYRNE.