

(No Model.)

A. T. LEWIS.
CAR COUPLING.

No. 501,432.

Patented July 11, 1893.

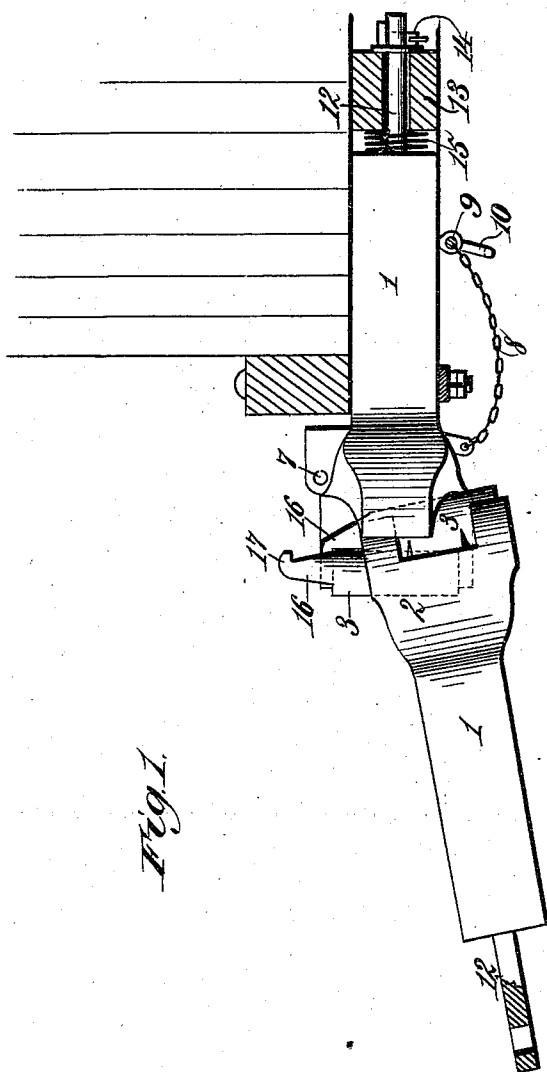


Fig. 1.

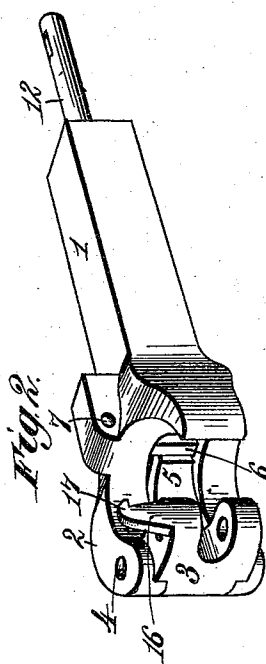


Fig. 2.

Witnesses,
Robert G. Smith,
J. W. Rea,

Inventor,
Alphonso T. Lewis,
By *James L. Norris,*
Atty.

UNITED STATES PATENT OFFICE.

ALPHONSO T. LEWIS, OF KNOXVILLE, TENNESSEE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 501,432, dated July 11, 1893.

Application filed April 20, 1893. Serial No. 471,201. (No model.)

To all whom it may concern:

Be it known that I, ALPHONSO T. LEWIS, a citizen of the United States, residing at Knoxville, in the county of Knox and State of Tennessee, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

In twin-jaw car couplings having jaws or knuckles pivoted to draw-heads which are secured to the cars by keys, screw nuts, or other fastenings, it frequently occurs that a draw-head is bodily broken loose from the car, and as its jaw or knuckle can slide vertically through the jaw or knuckle of the adjacent coupling, the detached draw-head falls upon the roadway, which is dangerous and damaging.

The object of my invention is to avoid the objection stated, and to prevent the draw-head, if it breaks from its attachment to a car, from falling to the roadway.

To accomplish this object my invention consists in the features of construction hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a sectional side elevation, showing portions of two cars with one of the draw-heads in proper position, and the other draw-head broken loose from the adjacent car; and Fig. 2 is a detail perspective view of one of the draw heads.

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, wherein—

The numeral 1 indicates the horizontal bar or body of the draw-head, comprising an arm 2 projecting forward from one side, and provided with the swinging jaw or knuckle 3. The jaw or knuckle 3 is pivoted to the arm 2 by a vertical pivot-pin 4 in such manner as to provide the jaw or knuckle with a tail-piece 5, adapted to co-operate with a latch 6, pivoted at its upper end by a horizontal pin 7, and connected at its lower free end with a chain 8 having one end secured to a transverse shaft 9. The shaft 9 carries a suitable handle 10 in such manner that when the cars are coupled and the handle 10 is operated to turn the shaft 9, the chain 8 will be drawn taut, and the latch 6 will be moved rearward

to release the tail 5 of the jaw or knuckle 3, and thus permit the latter to swing for the purpose of uncoupling.

The bar or body 1 of the draw-head is provided with a reduced shank or spindle 12, extending through a transverse girder 13 on the car, and secured in place by a key 14 or equivalent fastening device. A spring 15 is interposed between the bar or body 1 and the girder 13, the construction being such that the bar or body is susceptible of yielding lengthwise to a limited extent.

The parts thus far described are similar to the well known twin-jaw car couplings having pivoted jaws or knuckles, for example as illustrated in Patent No. 379,785, issued March 20, 1888, to J. A. Hinson.

In car couplings of the character described it frequently occurs that the key or other fastening 14 is broken or damaged, and the draw-head is bodily drawn away from the car, and as one of the knuckles 3, while the cars are coupled, can slide vertically through the other draw-head, the detached draw-head falls to the roadway, which is dangerous and sometimes results in serious damage. To avoid this I provide each of the pivoted jaws or knuckles 3 with an arm 16, preferably formed integral with the jaw or knuckle, and rising vertically from the upper side thereof. The top end of the arm is in the form of a hook 17, but the arrangement is preferably such that no part of the arm projects past the inner face of the jaw or knuckle on which the arm is fixed, as will be understood by reference to Fig. 1. The arm may be a separate piece secured in position, but I prefer to form the arm integral with the jaw or knuckle.

If the fastenings of a draw-head become broken or disarranged, and the draw-head moves bodily from the car, the rear end of the draw-head will swing downward, and the hooked extremity 17 of the arm 16 will be moved into engagement with the upper side of the jaw or knuckle on the adjacent draw-head, as clearly illustrated in Fig. 1, whereby the detached draw-head is held suspended, and is effectually prevented from falling to the roadway. By this means all danger or damage resulting from the draw-head falling between the tracks is avoided.

While I have illustrated the pivoted jaw or

knuckle as co-operating with the latch or dog 6, pivoted at its upper end and operated by a shaft 9 through the medium of a chain 8, I do not wish to be understood as confining myself to any particular construction in this respect, for obviously my invention is applicable to all twin-jaw couplings of the type illustrated in the drawings.

Having thus described my invention, what I claim is—

1. The combination with a draw-head having a latch or dog, of a pivoted jaw or knuckle having a tail-piece and provided on its upper side with a vertically projecting arm 16 for engaging with the upper side of the jaw or

knuckle on an adjacent draw-head, substantially as described.

2. The combination with a draw-head having a latch or dog, of a pivoted jaw or knuckle provided on its upper side with an upwardly projecting arm 16 having a hooked top extremity 17, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ALPHONSO T. LEWIS.

Witnesses:

FRANK MURPHY,
T. E. MCLEAN.