

WILLIAM K. WALLACE & EDWARD C. RUTLEDGE.

Improvement in Car-Couplings.

No. 114,732.

Patented May 9, 1871.

Fig. 1

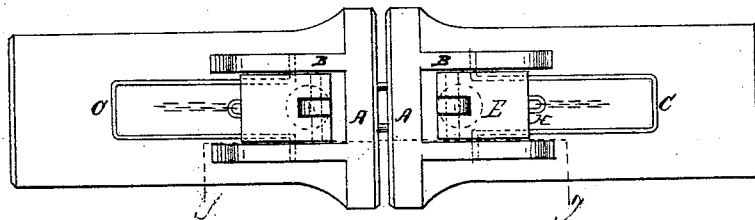


Fig. 2.

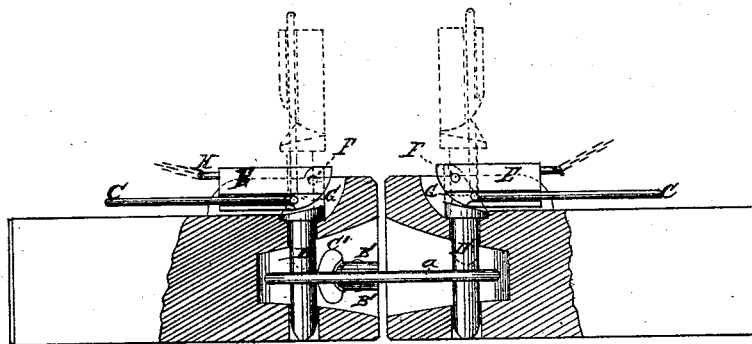
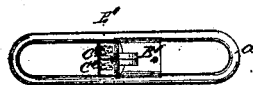


Fig. 3.



Witnesses

*J. W. Foster*  
*D. P. Howl*

Inventors.

*Wm. K. Wallace*  
*and*  
*E. C. Rutledge*  
*per Edison Brothers*  
*Attorneys*

# United States Patent Office.

WILLIAM K. WALLACE, OF CRAWFORDSVILLE, AND EDWARD C. RUTLEDGE,  
OF SHANNONDALE, INDIANA.

Letters Patent No. 114,732, dated May 9, 1871.

## IMPROVEMENT IN CAR-COUPPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

We, WILLIAM K. WALLACE, of the city of Crawfordsville, and EDWARD C. RUTLEDGE, of the town of Shannondale, in the county of Montgomery and State of Indiana, have invented certain new Improvements in Car-Coupling, of which the following is a specification, reference being had to the accompanying drawing forming a part of the same, and in which—

Figure 1 is a plan view of my car-coupling;

Figure 2, a view partly in section and partly in elevation, the part in section being taken with reference to the dotted line  $x x y$  of fig. 1; and

Figure 3, a plan view of the coupling-link and attachment.

Similar letters of reference in the several figures above alluded to indicate corresponding parts of my invention.

This invention relates to improvements in car-couplings, whereby the coupling-pin can be locked when down in the bumper, and also, when elevated, held in such a manner as to be readily thrust into said bumper, it being held directly over its aperture in the bumper and guided thereto, as will be seen hereinafter; and the coupling-link can be set at any desired inclination, in order that it may be adapted to couple cars of different heights and obviate the necessity of holding it, by the hand, in position, when such is the case.

The nature of this invention consists—

First, in providing the coupling-pin with a pivoted or hinged head formed or cut with longitudinal grooves, which receive the side bars of a loop or frame, confining said pin, when raised, in place, and pivoted within apertures cut in elevations formed on the bumper; and

Secondly, in providing the coupling-link with a device for holding the same in any desired inclination, consisting of a sliding block and curvilinear projections or pressers, the latter being hinged to the former and provided with a spring, all constructed and arranged substantially as hereinafter set forth and claimed.

The construction and operation of our invention will be understood from the following:

In the annexed drawing—

A A designate two ordinary bumpers of a car, detached therefrom.

B B are elevations or shoulders, two of which are formed on each bumper.

C C are loops or frames, their ends entering apertures cut in the elevations B B so as to allow of their being thrown down on the bumpers, as shown in figs. 1 and 2.

D D are the coupling-pins, which are reduced at their upper ends, as shown in fig. 1, so as to enter re-

cesses cut in the heads or blocks E E, which are pivoted to said coupling-pins by means of pivots F F. (See fig. 2.)

The shoulders formed on the coupling-pins are beveled, as plainly seen in fig. 2, as are also the blocks or heads E E at their points of contact with said shoulders of the coupling-pins, or at the points where they are pivoted or hinged to the latter, the object of so beveling the said parts being to permit of the heads E E occupying a horizontal position when the coupling-pins are down into the bumpers, by means of which said pins are locked in place when assisted by the loops or frames C C, above referred to.

The locking of the coupling-pins will be more fully apparent from the following.

The coupling-pin heads E E are constructed with longitudinal grooves G G in their sides, which receive the side bars of the loops C C for the purpose of allowing them to be slid up and down upon and within the loops C C when said loops occupy a vertical position, as shown in dotted lines in fig. 2, and, by means of the latter, it will be readily seen the coupling-pins, when raised, are held in a vertical position, and in such a manner as to allow the lower ends of the same to remain in their openings or receptacles in the bumpers, ready to be thrust into the coupling-link.

When the coupling-pins are down in the bumpers their heads E E, with the loops C C, will be in a horizontal position, and as the loops are pivoted or attached to the bumpers and to the heads of the coupling-pins, which heads are attached loosely to the latter, it will be seen that the said heads, which act in the capacity of weights, are locked in position so long as they remain flush with the bumpers or in a horizontal attitude, thereby preventing the coupling-pins from rising or being vertically moved when such is the case.

When it is desired to unlock the coupling-pins the loops C C must be raised to a vertical position, and the heads E E can then be raised, drawing with them the said pins, thereby relieving them, the pins, from the coupling-links.

In case it is desired to elevate the coupling-pins when the operator is upon the top or roof of the car, I provide the heads of the said pins with staples and chains H H, or other suitable contrivances.

a designates the coupling-link, which is provided with a sliding block, B', constructed in an upper and lower section for the purpose of permitting it to be applied to the said link, which sections are riveted together and so constructed as to form, when united, a semicircular recess in each side of the block B', of

which they are the component parts, to receive and fit the sides of the link in such a manner as to be held thereto and at the same time slide thereon.

C' C' are two supports or bars, of the curvilinear form shown in fig. 2, and constructed with shanks or arms pivoted within a recess cut in the block B', as shown in fig. 3.

These supports are held together and caused to press against the inner sides of the link *a* by means of a spiral spring, shown in dotted lines in fig. 3.

The supports C' C' are designed to rest on the inner surface of the bumper, and can be placed at any desired point by slipping or sliding the blocks B', to which they are attached, upon the coupling-link.

The object of the attachment C' C' B' is to permit the coupling-link to be set at any desired inclination, or held in a horizontal position while coupling cars, without necessitating the interference of the hand while such is being done.

When the link is to be set in an inclined position to suit cars of various heights to be coupled together, the link will be merely depressed or elevated at the free

end, as the case may require, and the spring jaws or supports C' C' will allow the link to yield and be rigidly held until the operation of coupling the cars is performed, the holding of the link in a horizontal position to suit cars of the same height being also performed by the said jaws or supports by just placing the link in a horizontal plane after having been depressed or elevated.

Having thus described our invention,

What we claim, and desire to secure by Letters Patent, is—

1. The coupling-pins D D, having beveled shoulders, as shown, blocks E E, and loops C C, constructed and arranged to operate substantially as shown and described.

2. The sliding block B' and supports C' C', having a spring inclosed, in combination with a coupling-link, substantially as shown and described.

WILLIAM K. WALLACE.

EDWARD C. RUTLEDGE.

Witnesses:

TAYLOR BUFFINGTON,  
JOHN HART.