

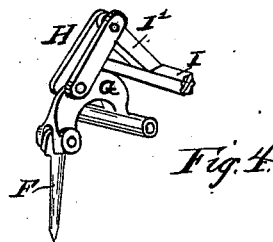
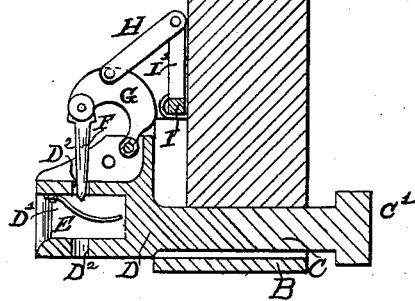
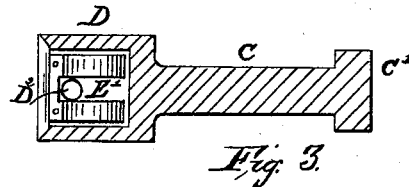
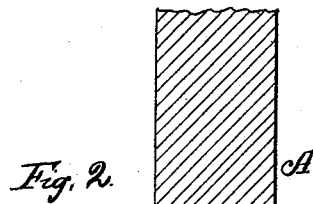
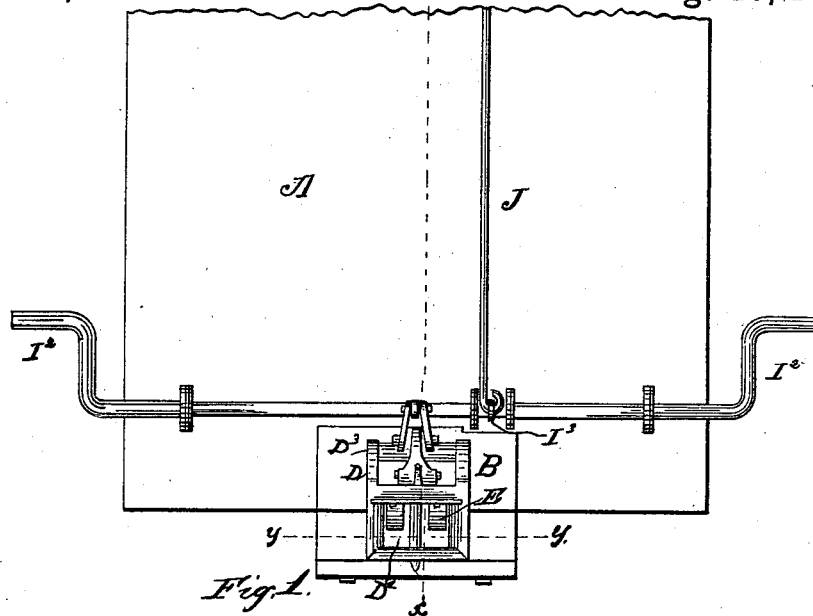
(No Model.)

J. T. WROE & T. R. HALL.

CAR COUPLING.

No. 346,975.

Patented Aug. 10, 1886.



Witnesses

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By their Attorney

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# UNITED STATES PATENT OFFICE.

JAMES T. WROE AND TYRA R. HALL, OF ELLINWOOD, KANSAS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 346,975, dated August 10, 1886.

Application filed June 7, 1886. Serial No. 204,378. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES T. WROE and TYRA R. HALL, citizens of the United States, residing at Ellinwood, in the county of Barton and State of Kansas, have invented certain new and useful Improvements in Car-Couplings; and we 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention consists in an improved car-coupling, by means of which the cars may be coupled together from the side or top without the necessity of the brakeman going between the cars, and which possesses other advantages, which will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a front elevation of our invention secured in its operative position. Fig. 2 is a vertical sectional view taken on line *x x*, Fig. 1. Fig. 3 is a horizontal sectional view taken on line *y y*, looking upward; and Fig. 4 is a detail perspective view of the pin, the curved arm, and the connecting-links which connect the same to the operating-lever.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the several parts by letter, A represents the end of a car, at the lower end of which is supported in the bumper-blocks B the draw-bar or bumper C, which is formed at its rear end with the enlargement C' and at its forward end with the draw-head D. This draw-head D is formed with the recess or opening D', in which the end of the coupling-link is received, and to the top of this recess are secured, by their forward ends, the flat springs E, which extend backward and downward in the said recess, so as to bear upon the end of the link which is inserted in the draw-head, and thereby hold the same straight, so that it will be sure to enter the draw-head of the car to which it is being coupled.

The draw-head D is provided with the vertical apertures D<sup>2</sup>, in which slides the coupling-pin E, which is pivoted at its upper end

in the forward end of the semicircular arm G, which is in turn pivoted at its rear end between the upwardly-extending jaws D<sup>3</sup> on top of the draw-head, while to the upper portion of this semicircular arm, a little in advance of its center, are pivoted the lower ends of the links H, which are pivoted at their upper ends to the outer end of a central arm, I', formed on the lever I, which extends in bearings across the front of the end of the car, and which is provided at its ends with the operating-handles I<sup>2</sup>, as shown. A vertical rod, J, slides in bearings on the end of the car, and is pivoted at its lower end to the outer end of a short arm, I<sup>2</sup>, formed on the lever I, while its upper end extends above the top of the car.

It will be seen that that portion of the draw-bar or bumper between the draw-head and the enlarged rear end, C', is longer than the thickness of the bumper-blocks in which it slides, so as to admit of the draw-bar sliding when the cars come together or start after being coupled, and thus diminish the strain incident to starting and stopping.

In operation, when two cars are to be coupled, the brakeman can either stand upon the top of the car and draw up upon the rod J, or else stand to either side of the car and operate the lever direct by means of its end handles, I<sup>2</sup>, which extend on each side of the car, without going between the cars, and thus couple the cars and uncouple them without the slightest danger of being injured in any way. By turning back the handles of the lever the coupling-pin is raised through the connecting-links and the curved arm, while by turning forward the said handles or pushing down the rod J the pin is lowered to hold the coupling-link.

It will be seen that by constructing the curved arm G of the form shown, and connecting it to the lever by the links pivoted, as described, at both ends, the bumper will be permitted to slide in or out without effecting the rise or fall of the pin. It will also be seen that when the cranks or handles of the lever are thrown back, their weight will hold the link up until the coupling is made, while, when they are pressed forward, their weight will

operate to hold the pin in its lowered or locked position.

The several parts are pivoted together by means of bolts, which may be removed readily to replace a broken part.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of our improved car-coupling will be readily understood.

Our improved coupling is exceedingly simple and strong in construction, and can be used with any ordinary coupling, such as is usually employed on a railroad.

Having thus described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. The combination of the draw-head having the recess, the vertical apertures, and the wings on its upper side, the springs arranged, as described, within the draw-head, the curved arm pivoted at its rear end between the said wings, the pin pivoted at its upper end in the

forward end of the said arm, the lever having the operating-handles at its ends, and the short central arms, the pivoted links, and the vertical rod, all arranged as and for the purpose set forth.

2. The combination of the draw-head having the recess, the vertical apertures, and the wings on its upper side, the springs arranged as described, the draw-bar carrying the draw-head at its forward end and having the enlarged rear end, the curved arm, the pin, the lever having the operating-handles, and the short central arms, the pivoted links, and the vertical rod, all constructed and arranged to operate in the manner and for the purpose herein set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES T. WROE.  
TYRA R. HALL.

Witnesses:

B. F. CLARK,  
FRED SIEGLINGER.