

(No Model.)

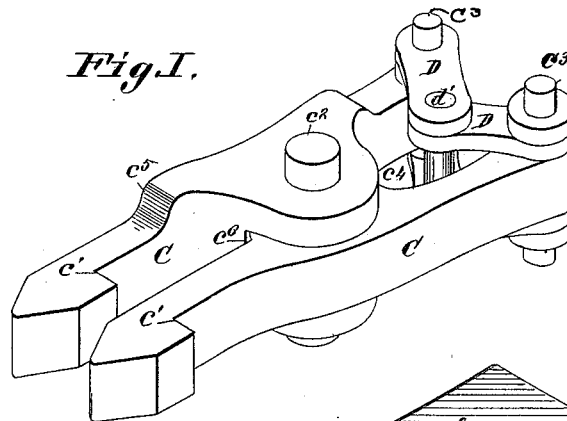
2 Sheets—Sheet 1.

J. HELM.  
CAR COUPLING.

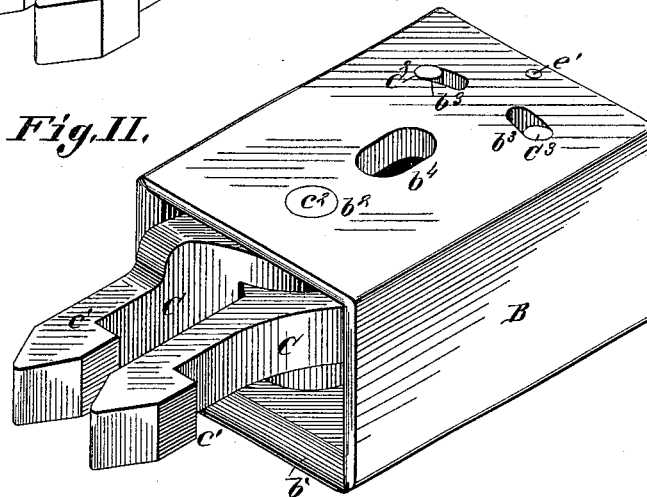
No. 385,929.

Patented July 10, 1888.

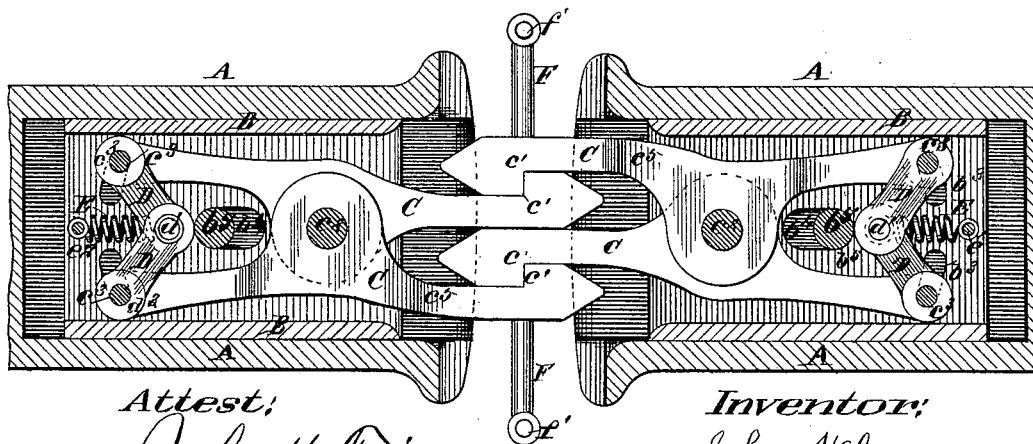
*Fig. I.*



*Fig. II.*



*Fig. III.*



Attest:

John H. Fisse.  
John H. Tiffany.

Inventor:

John Helm.  
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(No Model.)

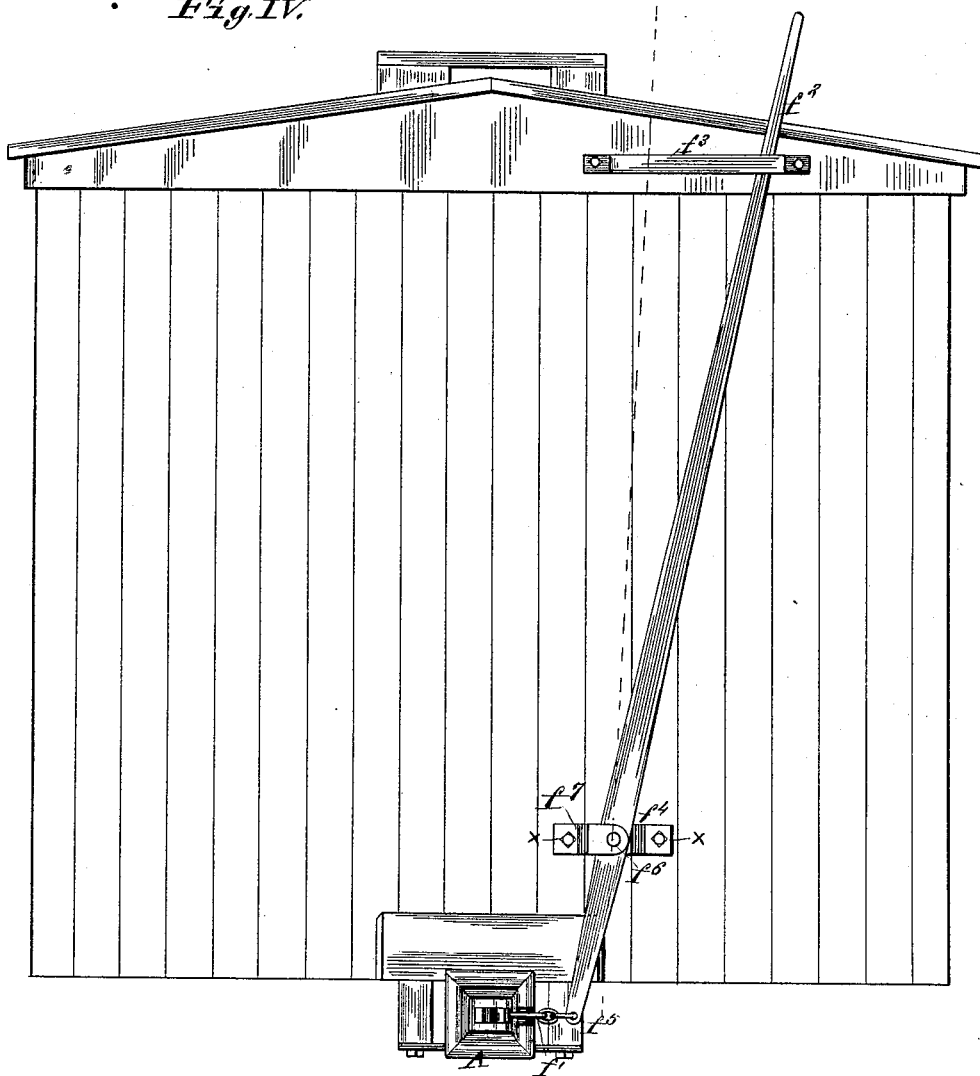
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J. HELM.  
CAR COUPLING.

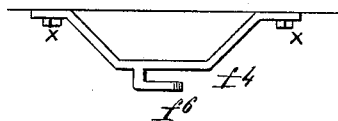
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*Fig. IV.*



*Fig. V.*



*Fig. VI.*



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# UNITED STATES PATENT OFFICE.

JOHN HELM, OF OMAHA, NEBRASKA, ASSIGNOR TO LOUIS HELM, OF  
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## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 385,929, dated July 10, 1888.

Application filed February 6, 1888. Serial No. 263,117. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN HELM, of Omaha, in the county of Douglas, in the State of Nebraska, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention relates to car-coupling devices that operate automatically in making the coupling when the draw-heads that contain the coupling apparatus are brought together; and it consists of features of novelty in construction and combination of the several parts, as hereinafter set forth, and as illustrated in the accompanying drawings.

Having reference to the drawings, Figure I is a perspective view of a part of my improved coupling device, showing the construction of the coupling-tongues. Fig. II is a perspective view of the metal box containing the coupling-tongues, the box itself being adjustable in the draw-head of the car. Fig. III is a top sectional view showing my invention applied to the draw-heads of the cars, coupling them together. Fig. IV is an end elevation of a box-car, showing the lever attachment for uncoupling the cars applied. Figs. V and VI are modifications of parts shown in Fig. IV.

Similar letters and figures denote similar parts throughout the drawings.

A represents the draw-head of a car, and B the metal rectangular box containing the gripping-tongues. This box should be substantially constructed to resist the vibrations of the operating parts contained in it, as well as to resist the vibrations incident to its being somewhat loosely fitted in the draw-head, so that it may adjust itself to the variations incident to the juxtaposition of the draw-heads in differently-constructed cars.

C represents the gripping-tongues, which consist of two parts, each part being formed with a  $\wedge$ -shaped outer end and a lug or shoulder,  $c'$ , to engage with similar parts in an opposite draw-head. The right or outer part of the gripping-tongue has a shoulder,  $c''$ , and is made deeper through its middle portion, so as to allow for the opening  $c'$  at that part, which receives the inner or left tongue, where the two are joined by the pin  $c^2$ . The inner ends of the tongues are provided with the toggle-

joint  $d'$  and toggle-arms D D, to which they are joined by the pins  $c^3$ , passing through the holes  $d^2$ .

E is a strong steel spiral spring fastened at its inner end to the bolt  $e^2$ , which latter passes through the box B by the holes  $e'$ , and is secured therein. The outer end of the spring E is secured to the central toggle-joint pin,  $d'$ . The office of the spring E is to draw the toggle-arms D D toward a straight line, and thereby afford the necessary flexibility and hold to the outer ends of the gripping-tongue.

The pin  $b^5$  holds the box containing the gripping-tongues in its place in the draw-head. This pin may be of the pattern in ordinary use for link-coupling, and it passes through the holes provided for it in the draw-head. The openings or slots  $b^4$  in the box to receive the pin  $b^5$  are made slightly oval or oblong, so as to permit the box to have a slight forward and backward motion upon the pin  $b^5$ .

The holes or slots  $b^3$  in the top and bottom of the box receive the connecting-pins  $c^3$ . They are made at a slight angle to each other and a little longer than they are wide, so as to permit of the necessary lateral motion of the pins as the toggle-arms open and close.

F is a pin projecting from the outside of the outer jaw of the gripping-tongue, to which it is firmly secured at one end, the other end having an eye or loop,  $f'$ , by which it is connected with the lever  $f^2$ , Fig. IV, by means of a link. The lever  $f^2$  is fastened to the end of the car in the bracket  $f^1$  by the pin  $f^6$ , upon which it works. The bracket  $f^1$  is secured to the end of the car by the bolts X X. The upper end of the lever  $f^2$  projects above the car-top, near which it is steadied and held in check by the bracket  $f^3$ , which has a lug or shoulder,  $f^5$ , by which it holds the gripping-tongues out of coupling when the lever assumes the position indicated by the dotted line in Fig. IV. (See Fig. VI.)

By the use of my invention the work of coupling and uncoupling can all be done from a platform or from the top of a freight-car, and it renders it unnecessary for a man to imperil himself by going between the cars to perform such work in a safe and satisfactory manner.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, in a car-coupler, of the ; pin F, gripping-jaws C C, and lever  $f^2$ , operating the same, in conjunction with the pin  $b^5$ , box B, and draw-head A, substantially as

shown and described, and for the purpose specified.

JOHN HELM.

Witnesses:

CHARLES L. KRAHM, Jr.,  
H. K. GALBRAITH.