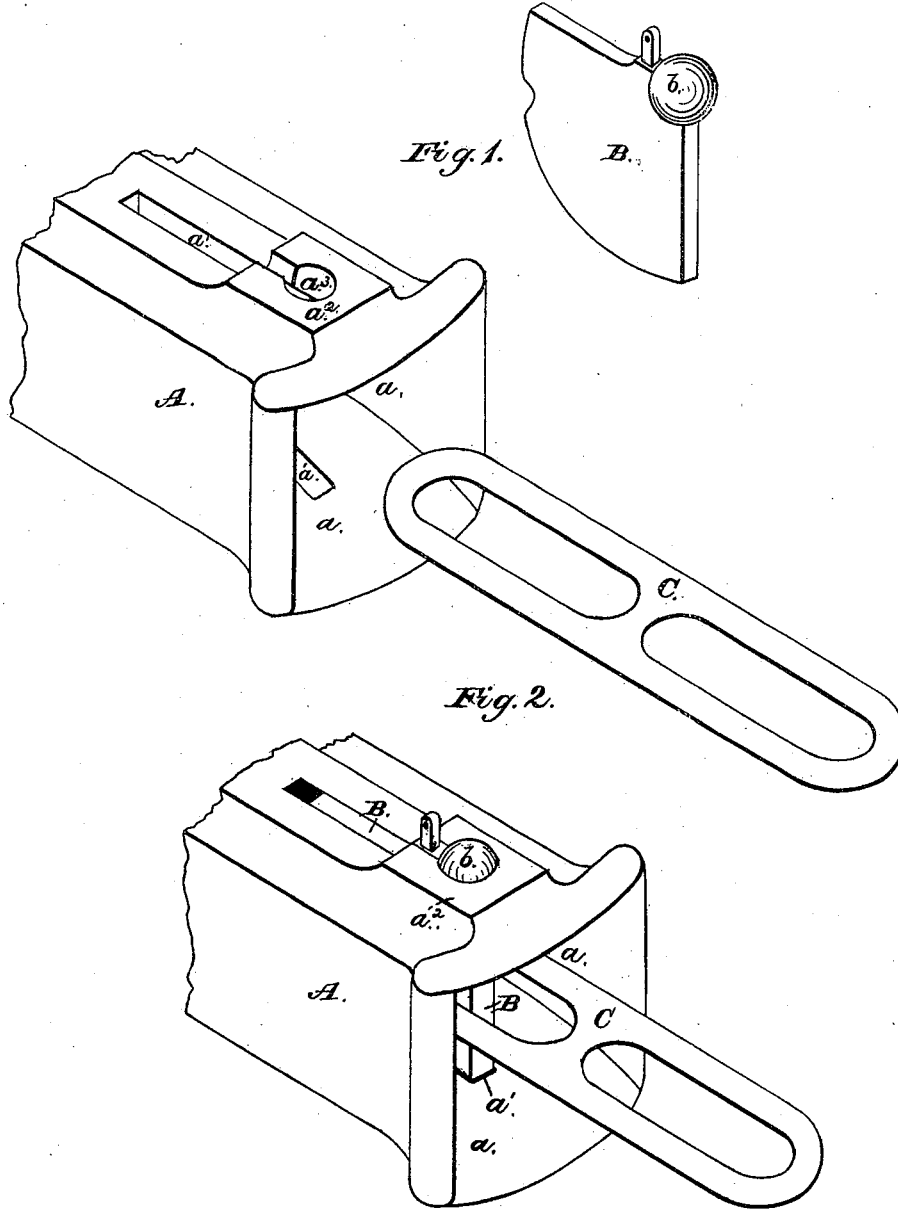


F. W. JONES.  
CAR COUPLING.

No. 245,505.

Patented Aug. 9, 1881.



Witnesses:

Gas. E. Hutchinson.  
Henry L. Hazard.

Inventor:

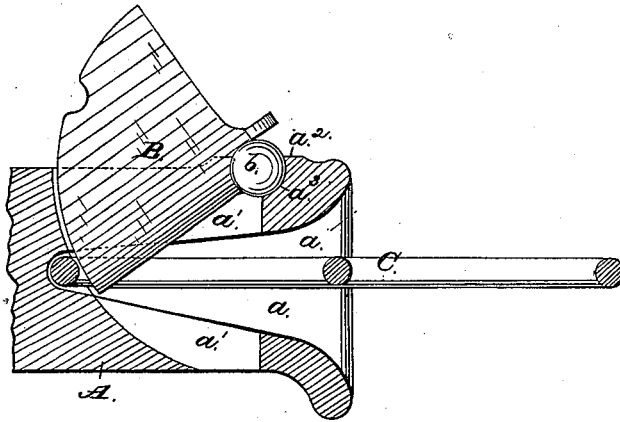
F. W. Jones, by  
Geo. S. Pindle, his  
Attorney

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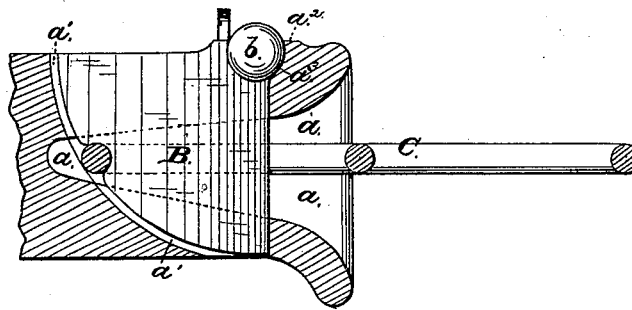
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*Fig. 3.*



*Fig. 4.*



*Witnesses:*

*Jas. E. Hutchinson.*  
*Henry C. Hazard.*

*Inventor.*

*F. W. Jones, by*  
*Geo. S. Prindle, his Att'y*

# UNITED STATES PATENT OFFICE.

FREDERICK W. JONES, OF SPARTANBURG, SOUTH CAROLINA, ASSIGNOR,  
BY DIRECT AND MESNE ASSIGNMENTS, TO THE EXCELSIOR LIFE SAVING  
CAR COUPLING COMPANY, OF NEW YORK, N. Y.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 245,505, dated August 9, 1881.

Application filed June 29, 1881. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. JONES, of Spartanburg, in the county of Spartanburg, and in the State of South Carolina, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the parts of my coupling separated from each other. Fig. 2 is a like view of the same combined for use, the link being locked in position for engagement with another coupling; and Figs. 3 and 4 are central longitudinal sections of said coupling, and show respectively said link passing into and after engagement with the coupling-pin.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to increase the efficiency and to render more easy of manipulation devices employed for connecting together railroad-cars; and to this end it consists in the construction of the coupling-pin and its combination with the draw-head, substantially as and for the purpose hereinafter specified.

In the annexed drawings, A represents a draw-head of usual exterior form, provided with an interior recess, *a*, which at its outer end terminates in a rectangular bell-mouth of ordinary form.

Passing vertically through the draw-head A is a central longitudinal slot, *a'*, which within the upper half of the same extends from the rear end of the recess *a* nearly to the front end of said head, while within the lower half of the latter said slot has about one-half the length of the said upper portion, and from its rear end, at the bottom of said head, extends rearward and upward in a curve, as seen in Figs. 3 and 4.

Upon the upper side of the draw-head A, at and immediately in rear of the front end of the slot *a'*, is a boss, *a<sup>2</sup>*, within which is formed a semi-spherical recess, *a<sup>3</sup>*, that at its lower end and rear sides opens into said slot.

Fitted loosely within the slot *a'* is a coupling plate or pin, B, which in side elevation has the general form of one-fourth of a circle, and at the axial center of the same is provided with a spherical head, *b*, that corresponds to and fits within the recess *a<sup>3</sup>* and furnishes a pivotal bearing for and upon which said coupling-pin swings. The normal position of the coupling-pin B is, with its front edge vertical, in engagement with the front end of the slot *a'*, from which position, as seen by the full lines of Fig. 4, said pin may be turned rearward and upward to the position shown by the full lines of Fig. 3, so as to enable a link, C, to be passed to position within the draw-head A, after which said pin drops downward again to its normal position.

The upper and lower sides of the recess *a* have such inclination from the horizontal as to give to said recess, in side elevation, a V-shape, the result being that the rear end of the link C is held in vertical position and prevented from passing above or below a central line. The movements of the coupling-pin, as described, are automatically effected by simply passing the link into the draw-head in the usual manner; but in order to release said link it is necessary to raise said coupling-pin vertically until its lower end is free from engagement with the same, after which said link may be withdrawn. The rear end of the link C is engaged upon its outer side by the rear end of the recess *a*, and at its inner side by the curved portion of the coupling-pin B, between which parts is just sufficient space to contain said link, so that there is no lost motion or play at such point. In order that said link shall have a firm engagement with said pin, the latter is preferably provided with a slight recess, *b'*, at the point of contact.

The coupling described holds the link firmly in place and prevents lost motion, is easily manipulated and automatic in its operation, and is not liable to injury from use or to displacement of its parts.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

The hereinbefore-described car-coupling, in

which the head A, provided with the recess *a*,  
slot *a'*, and semi-spherical recess *a*<sup>3</sup>, is com-  
bined with the coupling-pin B, having the seg-  
mental form shown, and provided with the  
5 spherical head *b*, whereby the link C is held  
firmly in place without lost motion, substan-  
tially as and for the purpose specified.

In testimony that I claim the foregoing I  
have hereunto set my hand this 21st day of  
June, 1881.

F. W. JONES.

Witnesses:

GEO. S. PRINDLE,  
HENRY C. HAZARD.