

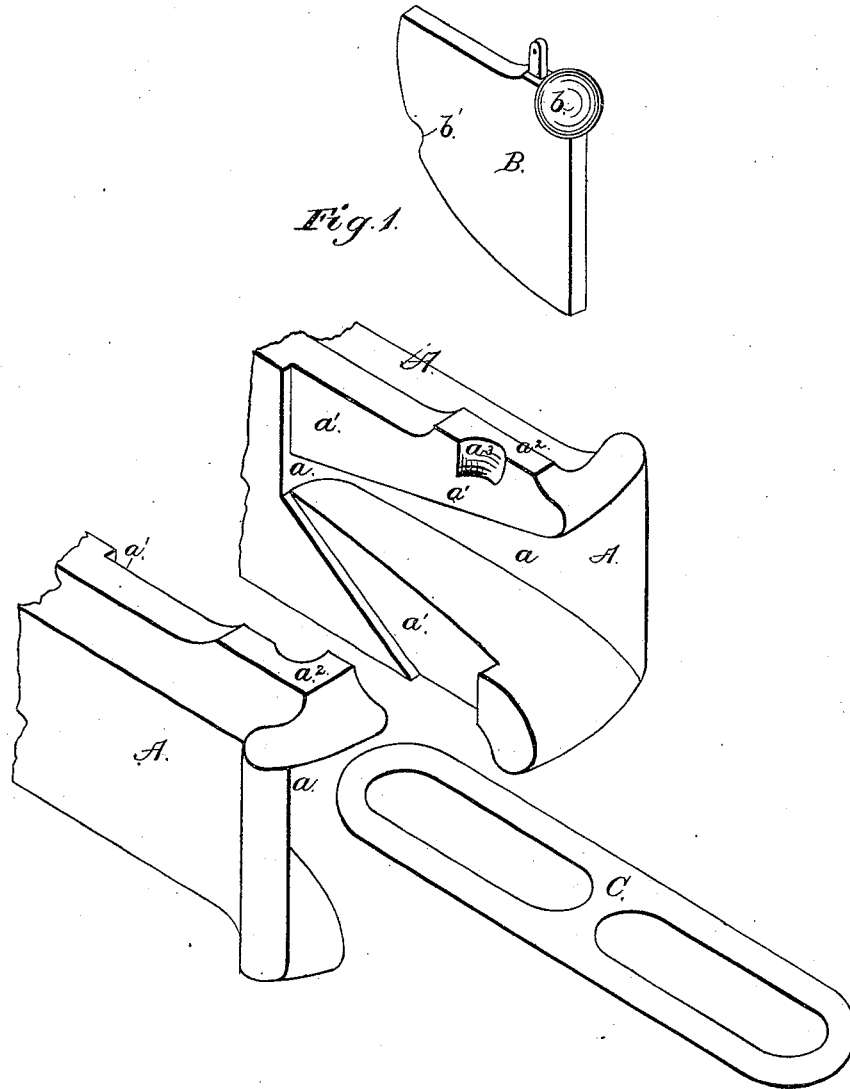
(No Model.)

3 Sheets—Sheet 1.

F. W. JONES.
CAR COUPLING.

No. 245,506.

Patented Aug. 9, 1881.



Witnesses.

Geo. E. Hutchinson.
Henry C. Hazard.

Inventor.

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

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Fig. 2.

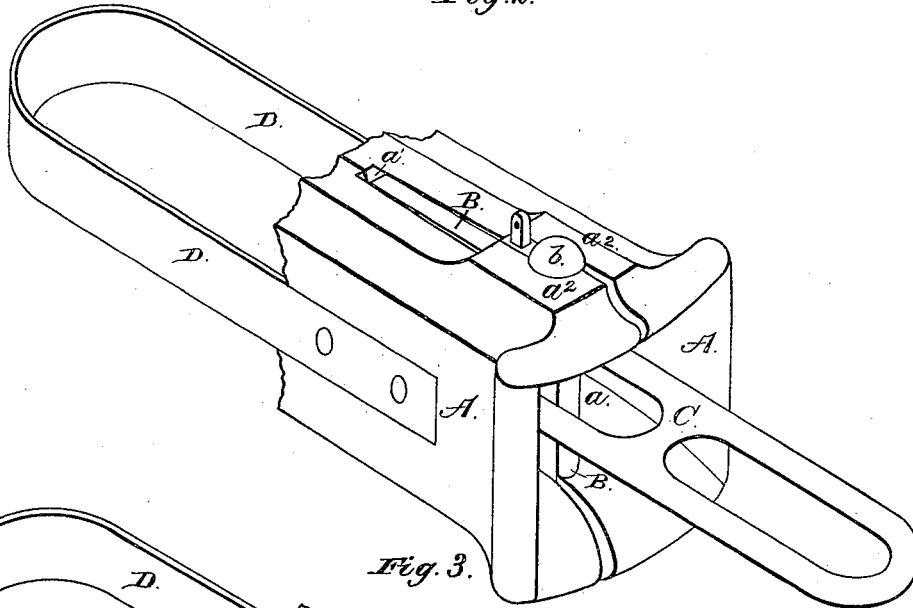
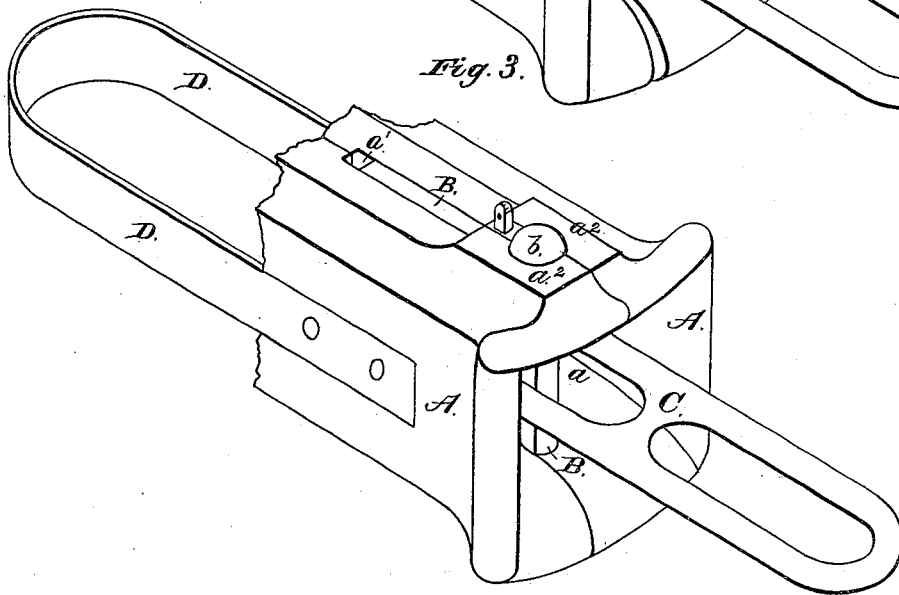


Fig. 3.



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Geo. S. Pindle, his Atty.

(No Model.)

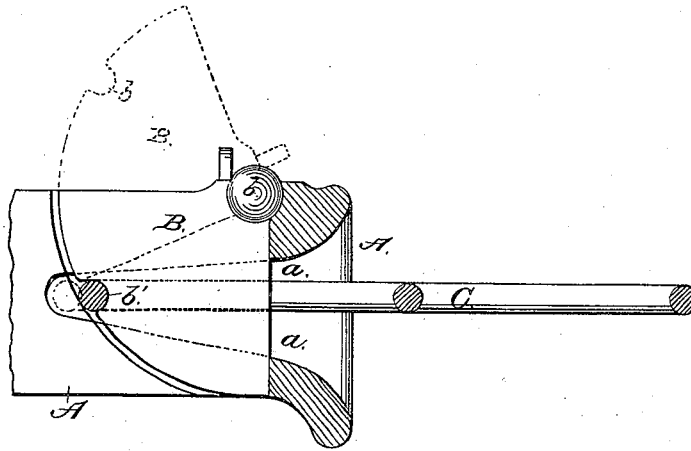
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Fig. 4.



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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. 245,506, 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 my improved device, the several parts being separated from each other. Fig. 2 is a like view of the same combined, but with the sections of the draw-head slightly separated. Fig. 3 is a perspective view of said device with the sections of said draw-head in their normal position; and Fig. 4 is a central longitudinal section of said draw-head, the full lines showing the normal position of parts, and the dotted lines their positions when the link is about to be engaged by the coupling-pin.

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

My invention is an improvement upon a car-coupling invented by William R. Jones, in which the draw-head is divided longitudinally, and is separable whenever a sufficient lateral strain is thrown upon the link, and has for its object security against the separation of the draw-head by the direct draft upon the link; to which end said invention consists in a draw-head divided longitudinally into two sections, which are separable by lateral pressure upon the coupling-link, and provided with solid bearings in front of the coupling-pin, substantially as and for the purpose hereinafter specified.

While my improvement is equally applicable to draw-heads having any form of coupling-pin, its operation and advantages will be sufficiently illustrated in connection with one form of pin.

In the annexed drawings, A represents a draw-head of usual exterior form, which is provided with an interior recess, *a*, that is rectangular in cross-section, and at its outer end has the ordinary bell-mouth shape, and from thence to its rear end has its upper and lower

sides formed upon converging lines, so as to give to said recess a V shape in side elevation.

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, preferably upon a curved line, as shown.

Upon the upper side of the head A, at and immediately in rear of the front end of the slot *a'*, is a boss, *a²*, within which is formed a semispherical recess, *a³*, that at its rear and lower 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 *a³* 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 and in engagement with the front end of the slot, from which position said pin may be turned rearward and upward, so as to enable a link, C, to be passed to position within the draw-head A, after which said pin will drop downward again to its normal position. The movements of the coupling-pin 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. When locked in place within the draw-head the rear end of the coupling-link C is engaged by the curved portion of the pin B, and at such point of contact said pin is provided with a slight recess, *b'*.

In order that a car jumping the track may be disconnected from the cars in front and rear, so as to prevent the same from being dragged off said track, the head A is formed in two sections, which are united upon a ver-

tical central longitudinal line, and are held together by means of a U-shaped spring, D, the ends of which are connected to or with said draw-head in substantially the manner shown.

5 The inward pressure of the spring D is sufficient to hold together the sections of the head A under ordinary circumstances; but should a car leave the track the side pressure produced by such movement will cause the draw-heads

10 to be opened by the links C, so as to release the coupling-pins B and leave the cars in front and rear to maintain their positions upon the track. The tendency of the draft upon the coupling-pin will be to spread the draw-head

15 so as to release said pin, when the line of division of said head is exactly at the transverse center of the longitudinal slot *a'*, to prevent which difficulty said line of division is central until it reaches the front end of said slot, and

20 from thence to the front end of said draw-head is upon a line with one side of said slot at the top, and upon a line with the opposite side of the same at the bottom of said head.

By this construction the upper end of the

coupling-pin B is supported at its front by a 25 solid bearing, which is attached to and forms part of one section of the head A, while the lower end of said pin has a solid front bearing that forms part of the opposite section of said head, the result being that draft upon said pin, 30 instead of operating to separate the sections of said coupling-head, has the effect to hold the same together.

Having thus fully set forth the nature and merits of my invention, what I claim as new 35 is—

A draw-head divided longitudinally into two sections, which are separable by lateral pressure upon the coupling-link, and provided with solid bearings in front of the coupling-pin, sub- 40 stantially 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.