E. CAREY.

Car Coupling.

No. 43,734. Patented Aug. 2, 1864.

Fig:1.

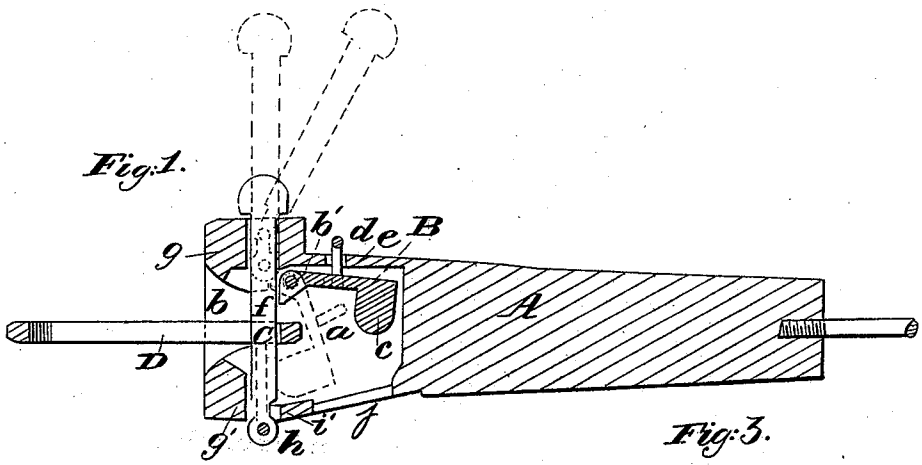


Fig:3.

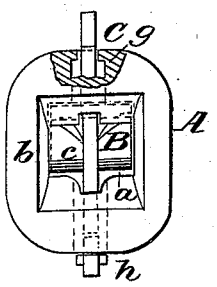


Fig:4.

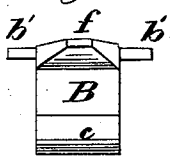
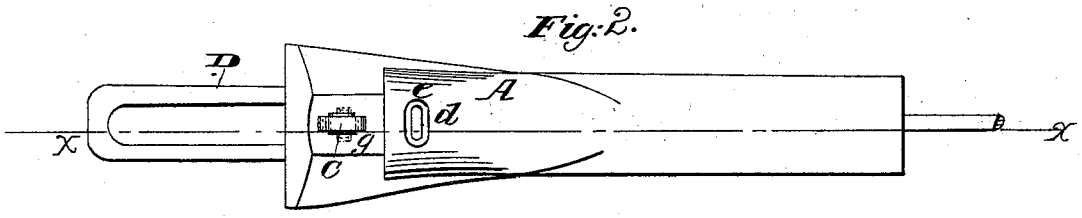


Fig:2.



Witnesses

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EBENEZER CAREY, OF BURLINGTON, IOWA, ASSIGNOR TO HIMSELF AND HORACE H. HAWLEY, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **43,734**, dated August 2, 1864.

To all whom it may concern:

Be it known that I, EBENEZER CAREY, of Burlington, in the county of Des Moines and State of Iowa, have invented a new and Improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical longitudinal section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of the same; Fig. 3, a front view of the same; Fig. 4, a detached face or front view of the support for the pin pertaining to the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved car-coupling which is self-acting or self-connecting; and it consists in the employment or use of a suspended pin-support, a pin of peculiar construction, and the ordinary link or shackle, all arranged and combined with a draw-head in such a manner as to form a simple and efficient coupling of the kind specified.

A represents the draw-head, which may be constructed of either wrought or cast iron, and applied to the car in the ordinary manner. The draw-head is provided with a cavity, *a*, at its front part, and with a flaring mouth, *b*, to admit of the proper entrance of the link or shackle of the draw-head of an adoining car.

B represents a plate or short bar, which serves as a support for the pin C of the draw-head. This plate B is fitted within the cavity *a* of the draw-head, and is suspended on journals *b' b'* at its upper part, the lower end of said plate being provided with a projection, *c*, to give it weight, the object of which will be presently shown. The back of the plate or pin-support B is provided with a handle, *d*, which, when the link-pin is down, extends through an opening, *e*, in the top of the draw-head, as shown in Fig. 1. At the front side of the upper part of the pin-support there is a projection, *f*, on which the link-pin C rests when the coupling is set to receive and secure the link. This link-pin C is of rectangular form in its transverse section, and is fitted and works in openings *g g'*, made, respectively, in the top and bottom of the draw-head, and in the lower part of the pin C, near its end, there is fitted a small transverse rod, *h*, which prevents the pin C being casually drawn out from the draw-head, the orifice of the upper opening, *g*, preventing such a contingency, as it only admits of the pin passing through. (See Fig. 3.) The lower part of the pin C, just above the rod *h*, has a recess or notch made in it, both at its front and rear sides, to form a neck, *i*, (shown clearly in Fig. 1,) and in the bottom of the draw-head there is an opening, *j*, to prevent the accumulation of dirt and trash in the cavity *a*.

D is the link or shackle, which may be of the usual form, and therefore does not require a special description.

From the above description it will be seen that when the link D is raised or drawn up, so that its lower end will be above the support B, the latter will drop, owing to the increased weight of its lower end, and the projection *f* at the upper end of the support B will catch and hold the pin C, as said projection will pass underneath the pin, the support B being hung or suspended in such a position as to effect that result; and it will further be seen that by shoving the link D into the cavity *a* of the draw-head the support B will be forced back, and the pin C drop through the link. In order to release the link, the support B is first raised at its lower end, and bears against the pin and causes considerable friction, and serves to prevent the casual rising or jolting upward of the pin. The pin is raised by grasping the handle *d* through the opening *e*, and then lifting the pin until the neck *i* reaches the orifice of the opening *g*, and the pin shoved or inclined either forward or backward, so that the edge of *g* will catch into the recess at either side of the neck, as shown in red dotted lines, Fig. 1. When the pin is in this position, a jar or concussion produced by the draw-heads of two cars coming in contact will be sufficient to release the pin; but if it be desired to set the pin so that the draw-heads may strike together freely without coupling, the pin C is

drawn up to its fullest extent and turned around at right angles to its former position, so that both sides of the orifice of the opening *g* may fit into the recesses at the sides of the neck *i*, and cause the pin to be firmly retained.

I claim as new and desire to secure by Letters Patent—

The suspended or swinging plate or pin-support B, fitted within the draw-head A, and provided with a projection, *f*, at its upper end, in combination with the pin C and link or shackle D, all arranged to operate substantially as herein described.

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