

C. H. SHIPPEE.  
Car-Coupling.

No. 228,127.

Patented May 25, 1880.

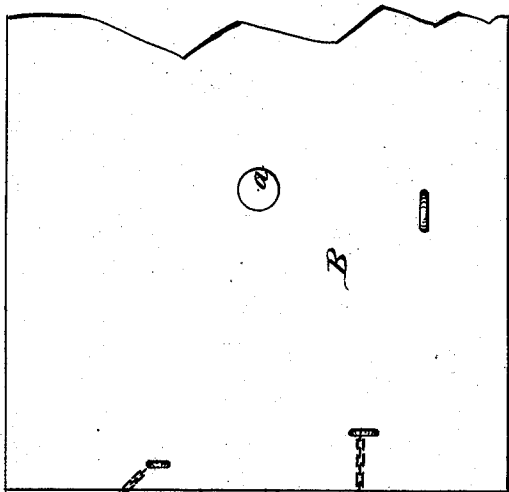


Fig. 1.

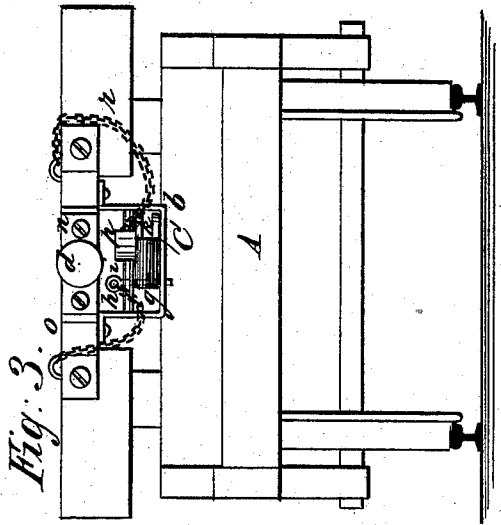
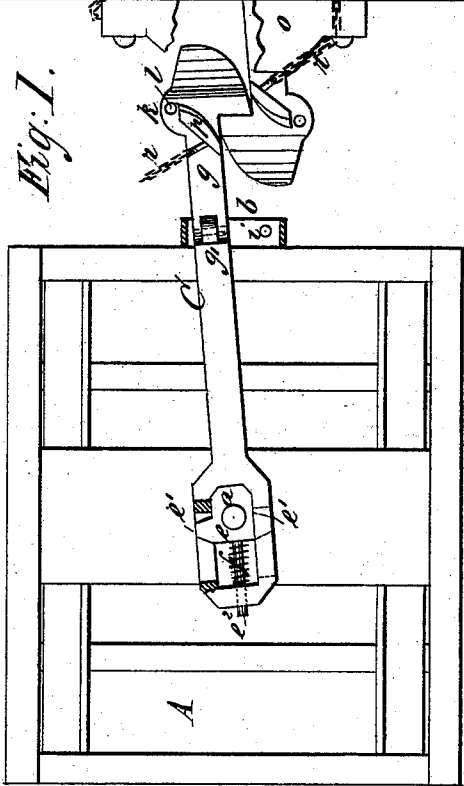


Fig. 3.

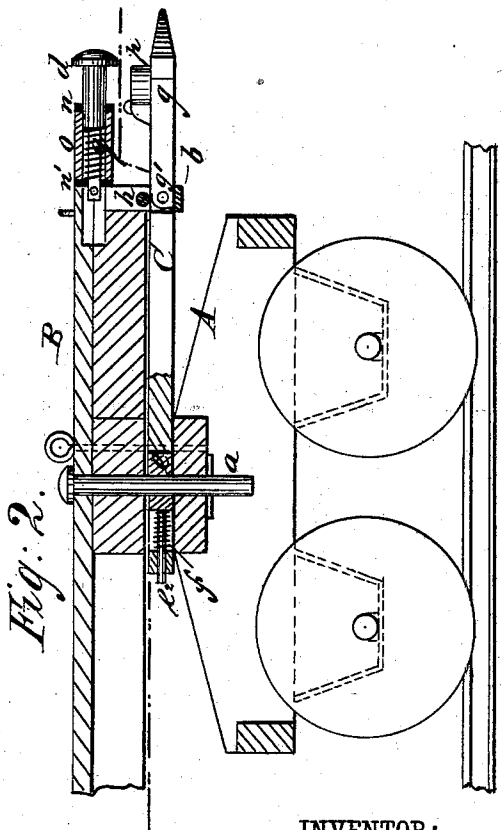


Fig. 2.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES H. SHIPPEE, OF WICKFORD, RHODE ISLAND.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 228,127, dated May 25, 1880.

Application filed October 6, 1879.

To all whom it may concern:

Be it known that I, CHARLES H. SHIPPEE, of Wickford, in the county of Washington and State of Rhode Island, have invented a new and Improved Car-Coupling, of which the following is a specification.

The object of my invention is to furnish automatic couplings of simple construction having but few parts, and those strongly and durably fitted, and also adapted for connection with the couplings now in use. I make use of a coupling and draw-bar formed at its outer end with a swinging hook of peculiar construction, and fitted to slide endwise upon a block attached to the king-bolt of the truck. In connection therewith I use spring-buffers fitted to keep the coupling under tension, all of which features will be described more particularly with reference to the accompanying drawings, and the invention pointed out in the claims.

In the drawings, Figure 1 is a plan view of car-truck fitted with my improved coupling. Fig. 2 is a vertical longitudinal section of one truck. Fig. 3 is an end view of a truck.

Similar letters of reference indicate corresponding parts.

A represents a car-truck of any usual construction; *a*, the king-bolt, on which car B swivels. C is the draw-bar, swinging horizontally on its connection to bolt *a* and sustained at its outer end by a hanger, *b*. *d* is the spring-buffer fitted in the end of the car-platform. These parts are the same on each car, and the description of their construction as fitted to one truck will apply to both.

The coupling-bar C is formed at its inner end with an oblong aperture to set around the swivel-block *e*, that is upon the king-bolt *a*. The block *e* is formed with side lugs, *e'*, that enter slots in bar C, and also with a pin, *e<sup>2</sup>*, that extends back through a hole in the end of bar C. Around the pin *e<sup>2</sup>* is a spiral spring, *f*, of steel. By this construction the bar C may swing horizontally with the block *e* and slide upon the block *e* endwise. The spring *f* gives spring-tension to the draft, and the lugs *e'*, limiting the endwise movement, prevent crushing of the spring. There is no danger of the parts becoming misplaced, as they are held between the bolster of the truck and car bottom.

Upon the outer end of draw-bar C the coup-

ling-hook *g* is hung by a knuckle-joint, *g'*, so that the hook *g* may swing upward, the lugs of the joint being formed square at the lower side, so that the hook may not drop down. The projection forming the hook is at one side, whereby the coupling is done by side movement, and the outer end of the hook is tapered on all sides to form a knife-edge, that causes the hooks to slip by each other when brought together.

Upon the upper side of hook *g* is an inclined lug or rib, *p*, which, acting against the inclined end of the opposite hook, causes the draw-bars to swing in opposite directions until the hooks drop together and couple. The hanger *b* limits the swinging movement of the draw-bar side-wise. In the hanger is fitted loosely a rod, *h*, above the bar C, and a pin, *i*, passing through *h* and the bottom of hanger *b*, limits the side-wise movement of bar C in the hanger, so that it is adapted for coupling with a similar bar. In the side of hook *g* opposite to the hook-projection a horizontal slot, *k*, is formed for receiving an ordinary coupling-link, which will be retained by inserting a pin through the hole *l*, whereby the draw-bar C may be connected to a car with an ordinary draw-head, or connected to a similar draw-bar, C, in case either hook breaks. In this case the pin *k* should be removed to permit the draw-bars to be swung aside and slots *k* brought into line. The pin *i* may be readily removed by raising it to relieve it from the hanger *b*, when the rod *h* can be turned and the pin drawn out. The pin *i* is attached by a chain long enough to permit of the pin being used for connecting the link, as mentioned.

The draw-bar C may also be used with a Miller coupling on the adjacent car, the hook of which will engage with the hook *g*, and the side taper at the end of *g* facilitates this connection. The end of hook *g* will be made of tempered steel to render it durable, and being kept sharp, there will be no danger of battering.

The buffer *d* is fitted midway in the width of the platform. It consists of a rod having an enlarged head, and slides and turns in the front and back plates, *n n'*, that are bolted to the platform or to the recessed wooden piece *o*, which is secured to the platform for carrying the buffer. Within the recess and around the

buffer-rod is a spiral spring, *g*, and the rod will be formed with a shoulder, as shown, to limit the backward movement and prevent crushing of the spring.

5 The operation when two cars fitted with the draw-bars C are brought together is thus: The wedge ends will cause one hook *g* to ride upon the other, and coming in contact with flange *p*, the hooks will be moved sidewise until the  
10 upper drops to place. The buffers *d* will come into contact and remain under spring-tension so long as the cars are coupled, so that the hooks will not be misplaced.

To uncouple, it is only necessary to raise  
15 either hook *g* by means of its chain *r*. The buffers *d*, being free to revolve in their supports, will wear uniformly.

It will be seen that there are but few parts to this coupling, and those parts are all strong  
20 and durable and sustained against injury.

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

1. The combination of a horizontally swinging and sliding bar, C, pivoted as described, 25 with a hook, *g*, pivoted to turn vertically on its end and having its junction with bar supported by a hanger, *b*, as shown and described.

2. In car-couplings, the apertured coupling and draw bar C, the block *e*, having lugs *e'* 30 and pin *e<sup>2</sup>*, and the spring *f*, combined with the king-bolt *a*, substantially as described and shown, and for the purposes specified.

3. In combination with the draw-bars C, the jointed coupling-hooks *g*, formed with a tapering 35 end and fitted with the inclined lugs *p*, substantially as and for the purposes described.

4. In combination with the draw-bar C and jointed hook *g*, having the side slot, *k*, the hanger *b*, fitted with the turning rod *h* and pin 40 *i*, substantially as and for the purposes specified.

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Witnesses:

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J. CARPENTER.