P. HARPER.

Car-Coupling.

No. 166,987. Patented Aug. 24, 1875.

Fig: 1.

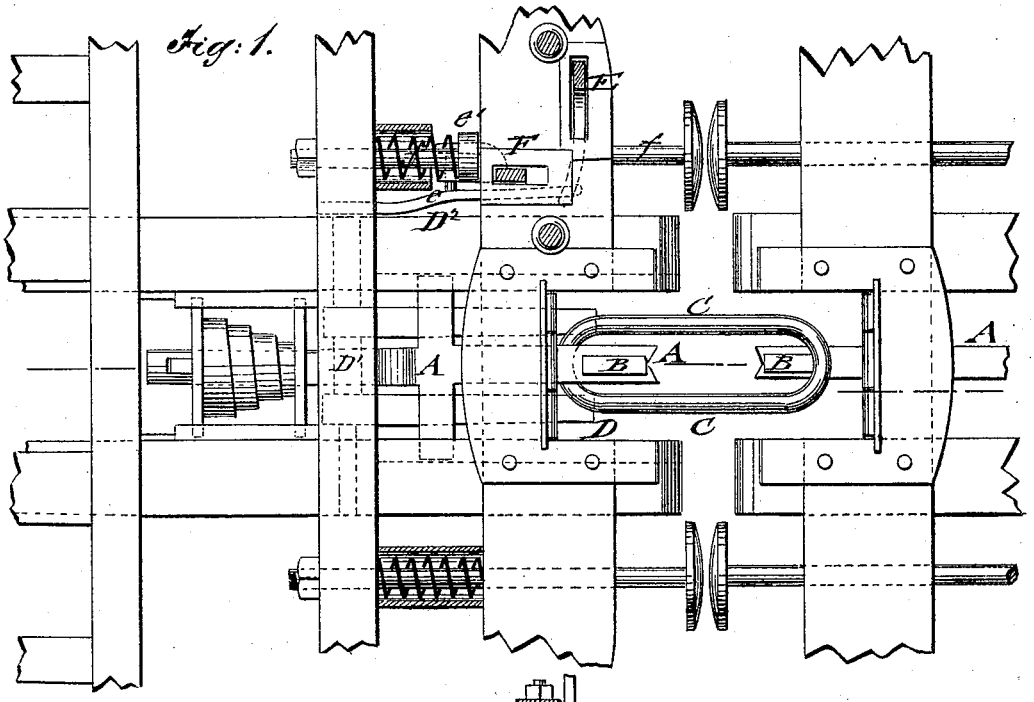


Fig: 2.

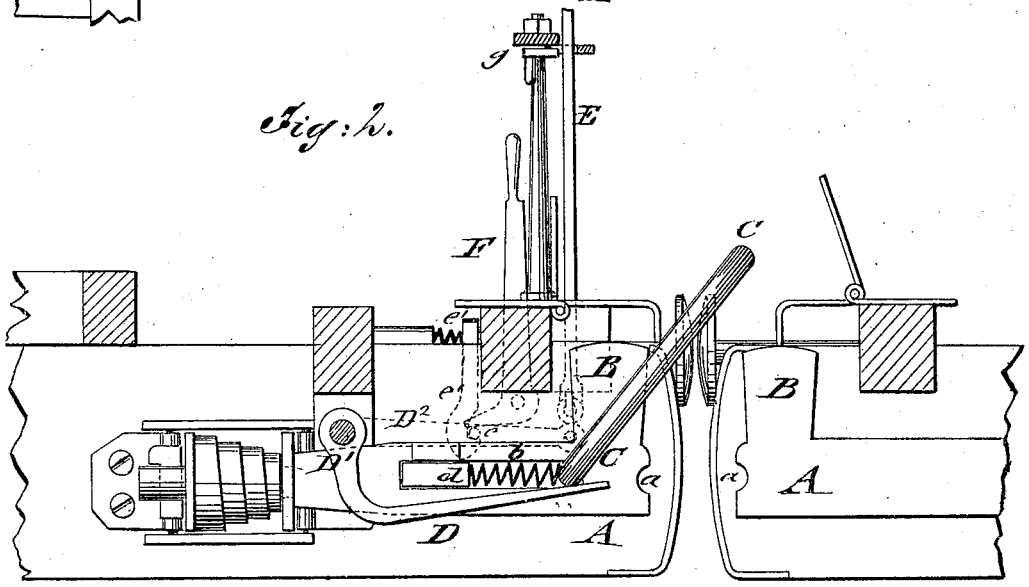
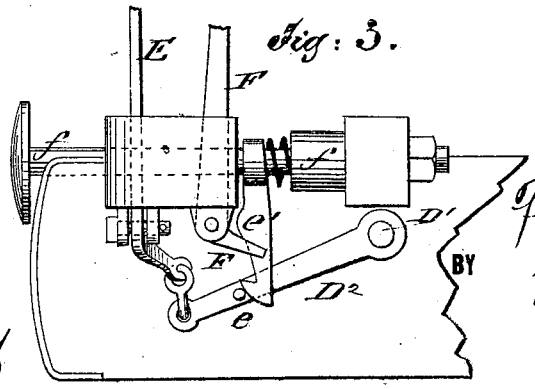


Fig: 3.



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PETER HARPER, OF MARSHALL, TEXAS.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **166,987**, dated August 24, 1875; application filed March 29, 1875.

To all whom it may concern:

Be it known that I, PETER HARPER, of Marshall, in the county of Harrison and State of Texas, have invented a new and Improved Car-Coupling, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view of my improved car-coupling, partly in horizontal section; Fig. 2, a sectional side elevation of the same, and Fig. 3 a side view of the link-controlling mechanism.

Similar letters of reference indicate corresponding parts.

My invention relates to an automatic car-coupling, that may also be readily coupled with the common pin-and-link and other couplings, and be adjusted without going between the cars, so as to avoid all danger.

The invention consists of a draw-bar with upward-extending hook part and a coupling-link, which is passed through a slot of the bar, and raised for coupling with the approaching draw-bar by a forked lever, operated by intermediate lever-rod connection from the platform or top of the car. The link is retained in raised position by a hook-arm of the buffer-rod engaging the connecting-lever mechanism, and is released by the concussion of the cars, dropping forward over the draw-bar of the adjoining car. A fulcrumed lever with forked lower part engages the hook-arm of the buffer-rod, and admits the direct lowering of the link independently of the buffer-rod.

In the drawing, A represents the draw-bar of my improved car-coupling, which is applied to the bottom of the car-frame by means of a cushioning spring and supports, in the usual manner. The draw-bar is provided with a strong upright hook, B, over which the link of the adjoining draw-bar is thrown for coupling therewith. A groove, *a*, at the front end of draw-bar serves to hold push-bar of locomotive when switching.

The draw-bar A is made with a slot, *b*, through which the coupling-link C is passed to swing readily therein, a spring, *d*, serving to press it toward the front end of the slot.

A forked lever, D, acts from below on link C, and swings it in upward raised position, ready for coupling. Lever D is attached to a lateral shaft or spindle, D^1, and operated for raising the link by means of a sliding or swinging lever, E, at the platform, side, or top of the car, the lever E being connected, either directly or by means of a knuckle-joint, as shown in Fig. 3, with a side arm, D^2, of shaft D^1. The arm D^2 is provided with a pin, *e*, which is engaged by a hook-shaped arm, *e'*, of the buffer-rod *f*, so that by the concussion of the spring-buffers of the car the pin is released from arm *e'*, the forked lever thereby lowered, and the coupling-link dropped in downward direction over the hook of the adjoining draw-bar, thus coupling therewith.

A fulcrumed lever, F, of the platform passes down into contact with the hook-arm *e'*, and allows the direct release of the pin and its downward swinging in horizontal or inclined position when it is desired to couple with the common draw-head and pin. A catch, *g*, of the platform-railing may be brought in contact with the link-controlling lever D, and thereby the horizontal position of the link retained.

Trap-doors above the draw-bar hooks protect the coupling mechanism against rain and snow, and establish the communication of the car-platforms.

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

1. A car-coupling composed of draw-bar, with upright hook-piece, a coupling-link swinging in a slot of the same, and a forked link controlling and raising lever, substantially as and for the purpose set forth.

2. The forked link controlling and raising lever, operated by intermediate spindle and lever connection from the platform, in combination with a retaining-hook mechanism of the spring buffer-rod, to hold link in raised position till released by concussion of cars, as set forth.

3. The combination of forked link-controlling lever, its operating mechanism, and the retaining hook-arm of the buffer-rod with a fulcrumed lever engaging the hook-arm, for admitting direct adjustment of link into horizontal or other position, as and for the purpose specified.

PETER HARPER.

Witnesses:
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