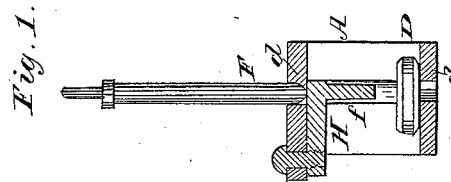
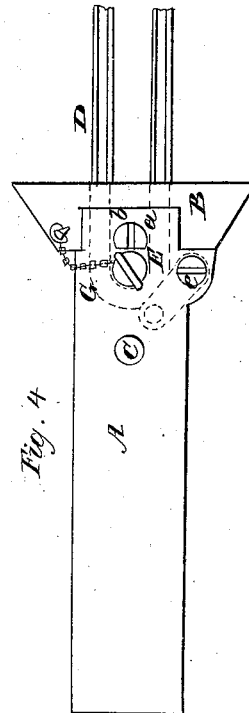
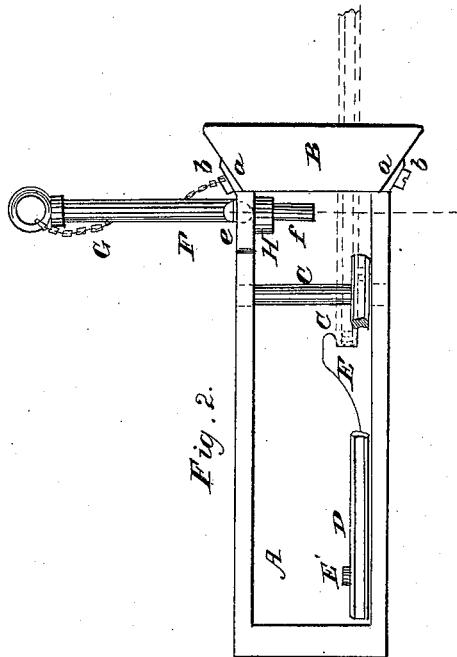
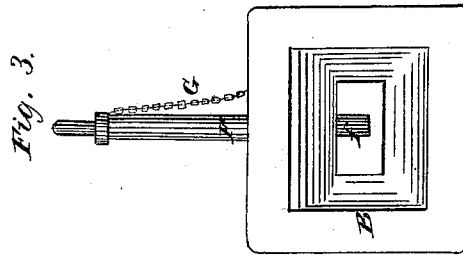


F. M. GIFFORD.

Car Coupling.

No. 46,656.

Patented Mar. 7, 1865.



Witnesses

Wm. Brown
Geo. Tusch

Inventor

F. M. Gifford
per *James H. Gifford*
attorneys

UNITED STATES PATENT OFFICE.

FRANCIS M. GIFFORD, OF BRANT, NEW YORK.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 46,656, dated March 7, 1865.

To all whom it may concern:

Be it known that I, FRANCIS M. GIFFORD, of Brant, in the county of Erie and State of New York, 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, forming part of this specification, in which—

Figure 1 is a transverse vertical section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a side view of the same; Fig. 3, a front view of the same; Fig. 4, a plan or top view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved car-coupling of that class which are generally termed "self-coupling," the construction and advantages of which are described as follows:

A represents the body or main portion of the draw-head, and B is the front or nose of the same. The body or main portion A is constructed of wrought-iron, but the nose B may be constructed of cast-iron, if desired, on the score of economy. The upper and lower edges of the front of the body A are provided each with a lip, *a*, which lap over the top and bottom surfaces of the nose B, and are secured thereto by rivets or bolts *b*. By this arrangement it will be seen that the nose may in case of breakage be readily detached from the body A, and a new one attached thereto. This nose is of flaring form, similar to those of many draw-heads now in use.

C represents a pin, which is secured vertically and permanently in the draw-head, said pin passing through the link or shackle D.

E represents a brace or stay, which is secured to the bottom of the draw-head, and is formed with a lip or projection, *c*, at its upper front end to hold the link or shackle D in a horizontal position when it is drawn or adjusted out from the draw-head to enter the draw-head of an adjoining car. When the link or shackle D is not thus drawn out, it is shoved back within the draw-head, its rear end being over a vertical pin, *E'*, on the bottom of the latter to keep the link in proper position, as shown clearly in Fig. 2.

F represents a drop bolt or pin, which works

in holes *d* in the top and bottom plates of the draw-head. This bolt or pin is connected to the draw-head by a chain, G, and when not in use it is held upward or supported by a short bar, H, which is secured at one end to the under side of the top plate of the draw-head by a bolt or pivot, *e*. This bar H is allowed to turn freely on the bolt or pivot *e*, and it is of such a length that it may be turned underneath the hole *d* in the top plate of the draw-head and thereby support the bolt or pin F, as shown clearly in Fig. 1.

The bar H, at its outer or disengaged end, is provided with a pendent rod, *f*, which projects down below the top of the opening in the nose B, so that it will be struck by a link or shackle of the draw-head of an adjoining car and turned from underneath the hole *d* in the top plate of the draw-head, and the bolt or pin F allowed to drop through the entering link or shackle and form a connection between the draw-heads of two adjoining cars.

In order to disconnect the draw-heads, the bolt or pin F of one of them is drawn upward, and the bar H turned underneath the hole *d* in the top plate of the draw-head to support the bolt or pin; and in order to render the coupling self-acting, it will be seen that the link or shackle D of one draw-head must be adjusted back within it so that its rear end will be over the pin *E'*, as shown in Fig. 2, and the link or shackle of the other draw-head adjusted outward, as shown in Fig. 4, and held in a horizontal position by the lip or projection *c* of the brace or stay E, as shown in red in Fig. 2. The brace or stay E, it will be seen, serves to prevent the link or shackle D, when adjusted in front of it, being forced back within its draw-head when entering and engaging with the drop bolt or pin of an adjoining draw-head.

This invention, it will be seen, may be used with the ordinary link-coupling in common use—that is to say, the latter may be on or applied to one car and my invention applied to an adjoining one.

Thus by this simple contrivance a coupling is obtained which obviates the necessity of a person passing between the cars in order to connect them together or to uncouple or disconnect them. Accidents from this source will be therefore prevented.

I do not confine myself to the exact form of

the several parts herein shown and described, for modifications of the same may be employed and the same end attained.

I do not claim, broadly, a drop-pin and link or shackle; but

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

1. The drop bolt or pin F and link or shackle D, in combination with the pivoted bar H and the brace or stay E, all arranged in relation with the draw-head, to operate

substantially in the manner as and for the purpose herein set forth.

2. The pin E' in the rear part of the draw-head, when used in connection with a link or shackle, D, and a brace or stay, E, substantially as and for the purpose specified.

FRANCIS M. GIFFORD.

Witnesses:

EDWARD SAVERY,
H. M. POPPLE.