(No Model.)

J. BUTTON.

CAR COUPLING.

No. 319,389. Patented June 2, 1885.

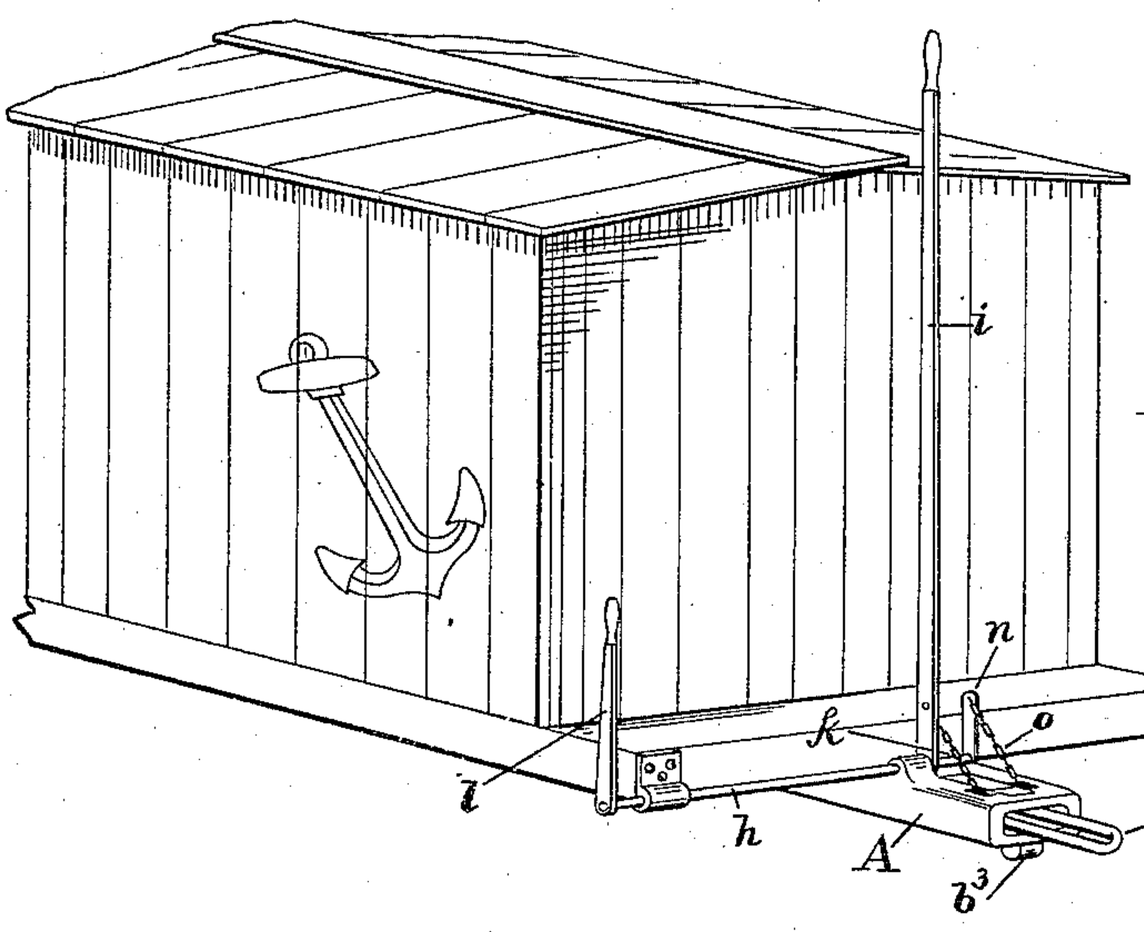


Fig. 1.

Fig. 2.

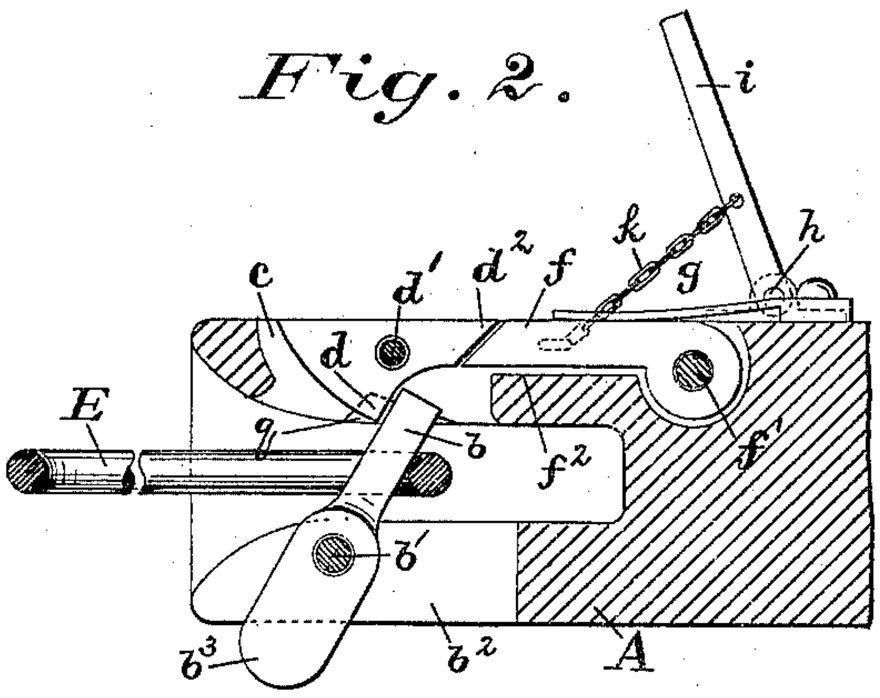


Fig. 3.

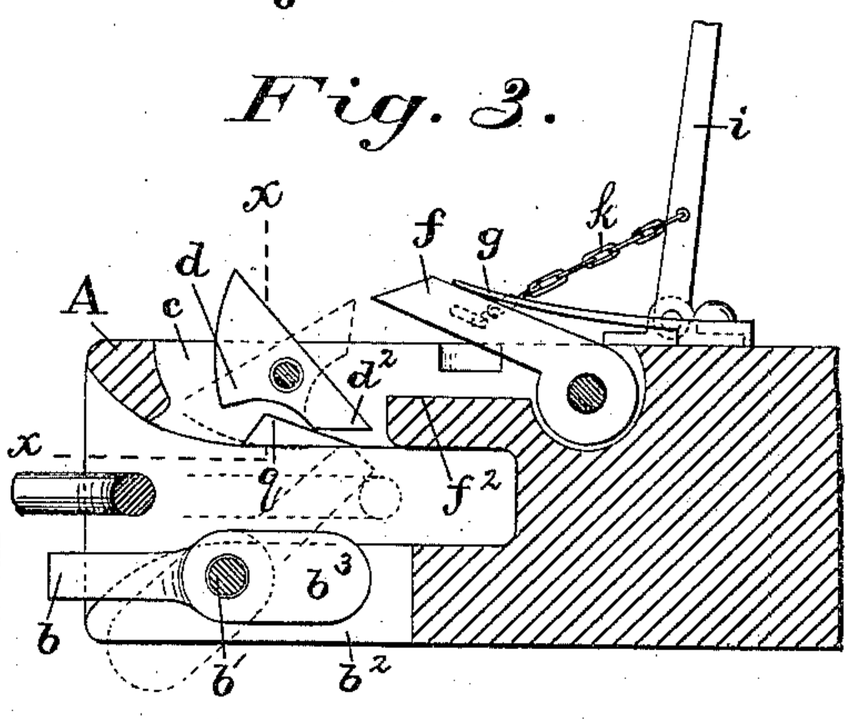


Fig. 4.

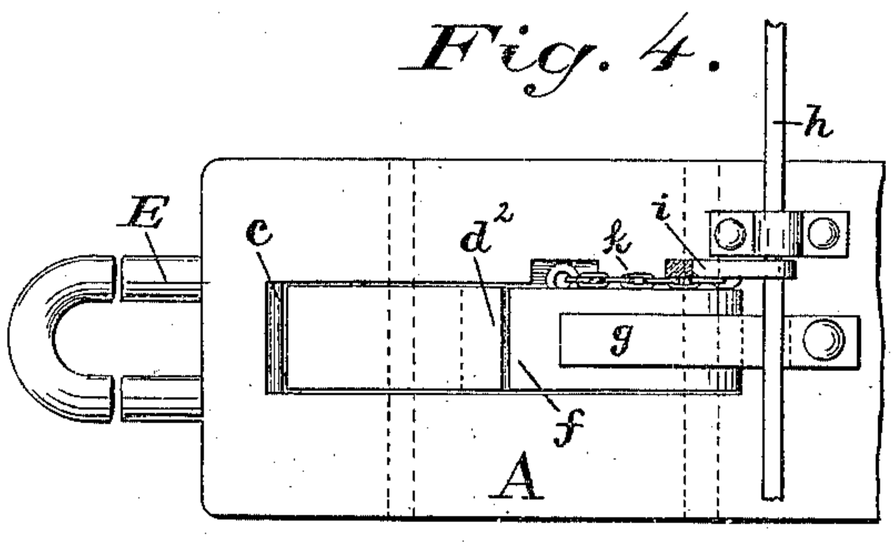
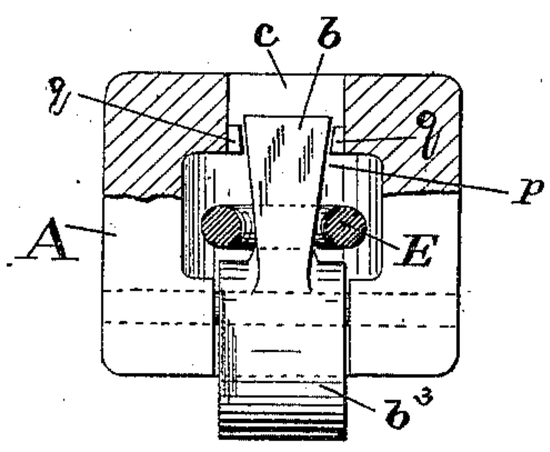


Fig. 5.



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UNITED STATES PATENT OFFICE.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 319,389, dated June 2, 1885.

Application filed April 22, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH BUTTON, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to improvements in car-couplings, and will first be described and then claimed.

The accompanying drawings illustrate the invention, Figure 1 being a view of a car to which the improved coupler is applied. Fig. 2 is a longitudinal section of the draw-head, showing the link coupled to the pin. Fig. 3 is a similar view showing the position of the pin and other parts when the link is about to be coupled. Fig. 4 is a top view of the draw-head and coupler. Fig. 5 is a front view of the draw-head, the upper part being shown in section on lines *x x*, Fig. 3.

The letter A designates the draw-head; *b*, the coupling-pin, swinging on a pivot-bolt, *b'*, and occupying a slot, b^2, in the bottom of the draw-head. The part of the pin below the pivot-bolt forms a weight, b^3, which swings in and below the slot b^2. This weight is so much heavier than the pin that it serves to keep the pin upright. A slot, *c*, is in the top of the draw-head, and is occupied by a pin-abutment, *d*, which is pivoted by a bolt, *d'*. When the pin *b* is against the pin-abutment *d*, as in Fig. 2, it is in position to hold the coupling-link E firmly, and the pin-abutment is prevented from turning on its pivot by its rear end, d^2, resting on the supporting-arm *f*, which occupies a groove in the top of the draw-head, and has a pivot, *f'*. When the pin *b*, pin-abutment *d*, and its supporting-arm *f* are in this position, (see Fig. 2,) coupling may be made by means of the ordinary link, E, with another car.

To uncouple the link E from the pin *b*, the supporting-arm *f* must be raised, and thereby release the rear end, d^2, of the pin-abutment, whereupon the latter may tilt on its pivot *d'* and allow the pin to tilt forward toward the mouth of the draw-head, and then the link may uncouple. When either coupling or uncoupling, the weights b^3 of the pin will take position in the slot b^2, and no damage to the pin can ensue. A spring, *g*, on top of the draw-head bears on the supporting-arm *f* and keeps it down to its seat f^2. A cross-rod, *h*, has a bearing on and extends across the draw-head, and a lever, *i*, is loosely attached to the rod. A chain, *k*, connects the supporting-arm *f* and the lever *i*. The lever *i* extends up the end of the car to the top, as shown in Fig. 1, and by means of said lever a person on top of the car may uncouple. The rod *h* extends from the draw-head to one or both sides of the car, and at the side of the car a lever, *l*, is attached to the said rod. Just above the draw-head an arm, *n*, is rigidly attached to the cross-rod *h*, and a chain, *o*, connects the supporting-arm *f* and said arm *n*. By this means a person at one side of the car may uncouple without going between the cars, and as the cross-rod *h* turns loosely in the end of the lever *i* the latter will not be affected or moved when the lever *l* at the side is used for uncoupling, and vice versa. The pin *b* is broadest at its free end, the sides of which flare, as shown in Fig. 5, and its sides *p* narrow or taper from the end toward its pivot-bolt, and each side of the top slot, *c*, has a sloping swell or projection, *q*, below the pivot-bolt *d'*. These sloping projections narrow the slot. By this construction, when the pin *b* is against the abutment *d*, the flaring sides *p* of the pin are in the narrowed part of the slot between the sloping side projections, *q*. In case the pin *b* were to bend in consequence of the strain caused by the link E, its flared upper end would become tight between the sloping side projections, *q*, and, although bent, it could not slip past the abutment *d*.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A car-coupling having, in combination, a draw-head provided in its bottom with a slot, b^2, a coupling-pin, *b*, pivoted in the slot, and having below its pivot a weight, a pin-abutment, *d*, pivoted in the top of the draw-head, and a pivoted supporting-arm, *f*, on which one end of the said abutment rests, as set forth.

2. A car-coupling having, in combination,

a draw-head provided with a pivoted coupling-pin, *b*, having below its pivot a weight, an abutment for the top part of the pin to rest against, a pivoted arm, *f*, to hold the abutment, a cross-rod having at the side of the car a lever, *l*, and provided with an arm, *n*, a lever, *i*, loosely pivoted on the cross-rod and extending to the car-top, and chains *o k*, separately connecting the pivoted arm *f* with the said cross-rod arm and lever, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH BUTTON.

Witnesses:

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