(No Model.)

G. P. DOUGHERTY.

CAR COUPLING.

No. 273,481. Patented Mar. 6, 1883.

Fig. 1.

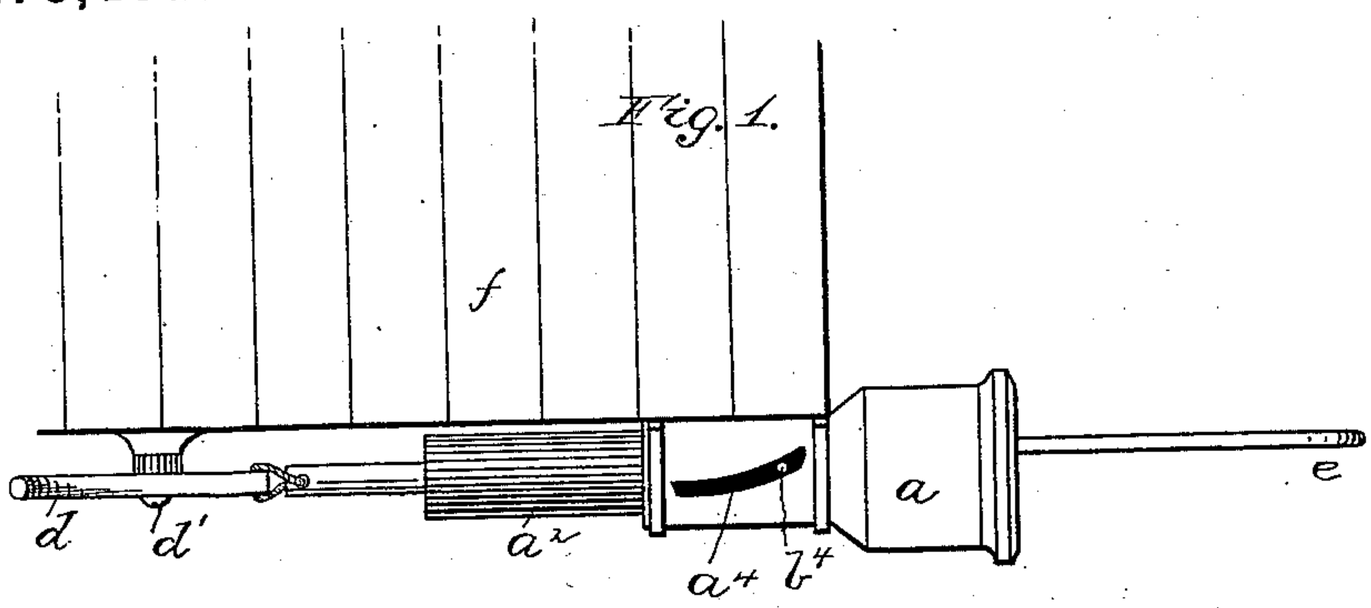


Fig. 2.

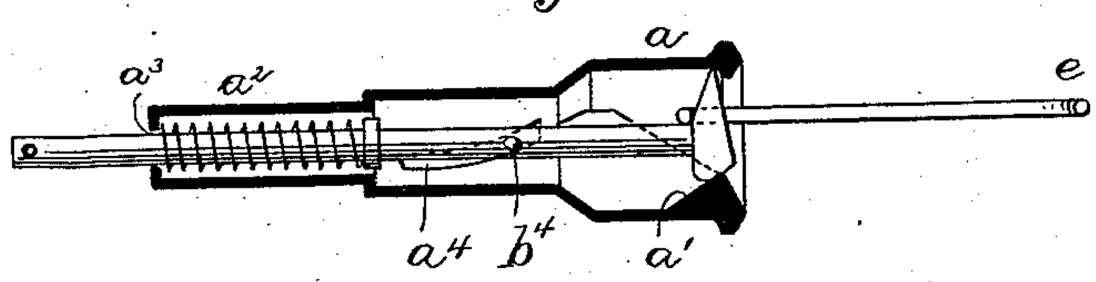
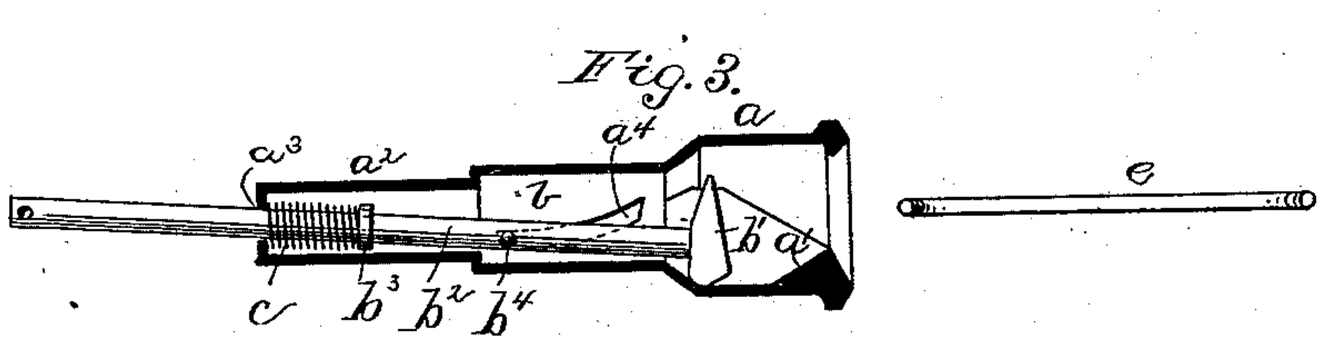


Fig. 3.



Witnesses:

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per Howard A. Thom

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UNITED STATES PATENT OFFICE.

GEORGE P. DOUGHERTY, OF INDEPENDENCE, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 273,481, dated March 6, 1883.

Application filed December 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. DOUGHERTY, a citizen of the United States, residing at Independence, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in self-couplers for freight and passenger cars; and it consists in the construction and arrangement of the several parts, as will be hereinafter fully described, and specifically pointed out in the claims.

In the drawings, Figure 1 is a side view of a car having my improved coupler. Figs. 2 and 3 are vertical sections of the draw-head, showing the catch in different positions.

a is the draw-head, secured on the under side of the car *f*. The outer end of the draw-head is provided with the usual link-opening, the edges of its walls being suitably rounded to facilitate the entrance of the link. The top of the under side of the draw-head is provided, near the outer end, with an inclined portion, a', which guides the catch up into proper position when it is thrown forward by the operating-spring, hereinafter described.

The draw-head is extended rearward in a tubular portion, a^2. This portion is provided in its rear end with a hole, a^3, to permit the passage of the shank of the catch, as will be described.

a^4 is a slot cut in the side walls of the draw-head, about midway the ends of the same. This slot is curved, and is inclined downward from its forward to its rear end, as shown, and for the purposes hereinafter described.

b is the catch, composed of the block b' and its shank b^2. The block b' is adapted to close the opening in the draw-head. The shank b^2 extends back within the draw-head, with its rear end projected through the opening a^3 in the end of portion a^2, as shown.

b^3 is a shoulder formed on shank b^2, about midway its ends.

b^4 is a pin secured to and projected from opposite sides of the shank b^2, at a point about centrally between the shoulder b^3 and the block b', and its projected ends move within the curved slot a^4, formed in the side walls of the draw-head, as shown.

c is a coil-spring placed on the shank b^2 of the catch, and arranged to bear between the rear end of the portion a^2 and the shoulder b^3 and force the catch into position shown in Fig. 2.

d represents a lever pivoted on a pin, d', under the car, and having its inner arm connected to the shank b^2 and its outer arm projected beyond the side of the car, in convenient reach of the operator.

e is the link.

In the operation of my device, when the link is forced against the block b', when the latter is in the position shown in Fig. 2, it forces the catch into about the position shown in Fig. 3, the pin b^4 in slot a^4 and block b', as shown, and the link will then fall over the top of the block b' and the spring *c* will carry the catch back into the position shown in Fig. 2, locking the link securely.

When it is desired to uncouple, the catch may be drawn back by the lever *d*, as has been described. I prefer to use this lever, though it will be understood that instead thereof a rod or other device might be secured to the pins b^4, or otherwise, so the catch could be drawn back.

What I claim is—

1. In a car-coupler, the combination of the draw-head constructed with slots a^4 in its side walls, the catch *b*, composed of block b' and shank b^2, the pins b^4, projected from the shank b^2, within the slots a^4, the spring *c*, and means whereby the catch may be operated to release the link, substantially as and for the purposes set forth.

2. The combination of the draw-head constructed with curved slot a^4 and rear opening, a^3, the catch *b*, having its rear end projected through opening a^3, the pin b^4, projected from shank a^2, within the slot a^4, the coil-spring *c*, and the lever *d*, pivoted under the car and having its inner end connected to the end of the shank b^2 and its outer end projected beyond the side of the car, as set forth.

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

GEORGE P. DOUGHERTY.

Witnesses:

GEORGE F. SHAW,

HORACE SHELLY.