(No Model.)

# D. M. REYNOLDS.

## CAR COUPLING.

No. 304,452. Patented Sept. 2, 1884.

*Fig. 1.*

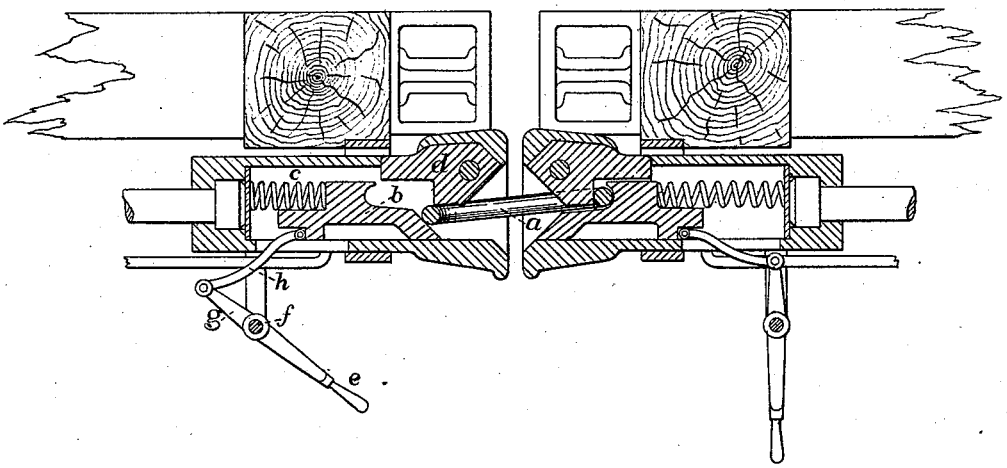



*Fig. 2.*

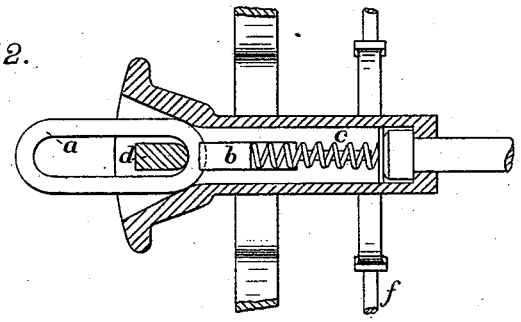
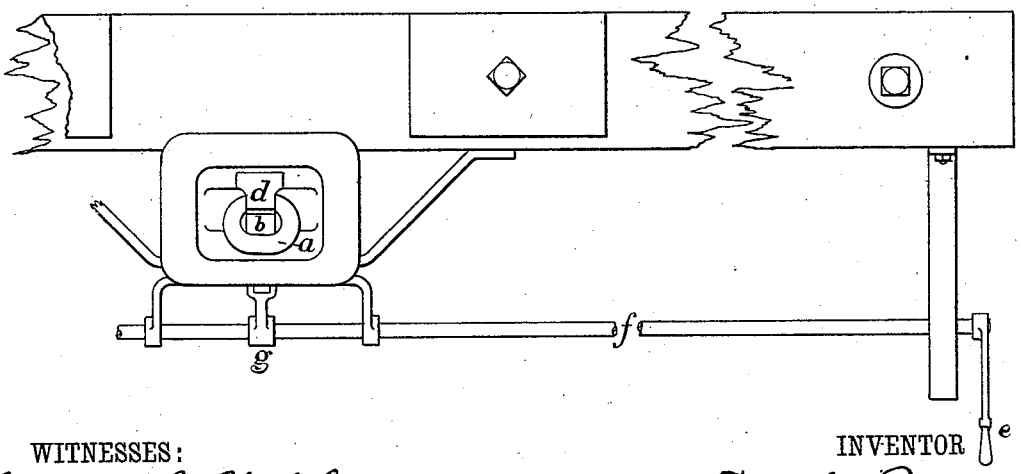



*Fig. 3.*




WITNESSES:

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# UNITED STATES PATENT OFFICE.

DAVID M. REYNOLDS, OF WATKINS, NEW YORK.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 304,452, dated September 2, 1884.

Application filed November 17, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID M. REYNOLDS, a citizen of the United States, residing at Watkins in the county of Schuyler and State of New York, have invented a new and useful Car-Coupler, of which the following is a specification.

The said invention relates to devices for automatically coupling railroad-cars with the ordinary coupling-link, and to means for disengaging them by a lever that extends beyond the space between the cars. The head of the draw-bar is fitted with two pieces, the upper one of which is a hook or detent with a vertical face, and the lower is a sliding guard that closes the hook, and is held in place by a spring that may be drawn back by a suitable combination of levers. These two pieces together form a concave face to the head, so that when a link in one car strikes the face of the draw-bar on another car it is guided to the sliding piece, which yields to the pressure until the link can slip up behind the hook, when the guard is replaced by the spring and the hook remains securely closed until the guard is forced back by the lever or handle provided for that purpose, and the link is allowed to drop down from the hook by its own gravity. The arrangement of the parts causes the cars to be automatically coupled by pressing them together in opposition to a spring, and while the spring is restrained by an attendant or otherwise the link will be dropped from the hook and the cars remain uncoupled. The strength of the spring need only be sufficient to move the sliding guard, and no part of the draft of the cars is upon the guard to resist uncoupling.

To enable others skilled in the art to which it appertains to make and use my invention, I will proceed to describe its construction and operation with reference to the drawings.

Figure 1 is a side elevation in section of the draw-bar heads of a pair of cars when being coupled. Fig. 2 is a plan of one of the heads in horizontal section, and with the link in its coupled position; and Fig. 3 is a partial elevation of the end of the car that shows the arrangement of the detaching-levers.

The link *a* rests within the head in which it has been placed and hooked, and when that car is brought up to another to be coupled the outer end of the link strikes the concavity of the face of the head, is guided to the sliding piece *b*, which is forced back and compresses the spring *c* until that end of the link has passed beyond the inverted hook *d*, with which it immediately engages by rising behind it, and thus allows the piece *b* to be forced forward by the spring to close the hook. In this position the whole power of the draft is sustained by the hook and link, and there is no force that tends to displace the guard by which the hook is closed and the link held in its proper place. The vertical face of the inverted hook or detent, up and behind which the link is forced and held by the guard, allows the link to fall to uncouple the cars when the guard is withdrawn. The cars are disengaged by the handle *e*, placed at the side of the car, by which the sliding piece *b* may be withdrawn to let the link fall clear of the hook through the intervention of the shaft *f*, the lever *g*, and the connection *h*. With suitable similar connections to the sliding piece the handle *e* may be operated from the top or elsewhere about the car.

I claim—

1. The combination of a stud or hook, *d*, adapted to engage an ordinary link, and the sliding guard *b*, operated to close the hook and retain the link by the spring *c*.

2. The combination, with the sliding guard *b*, of the handle *e*, the shaft *f*, the lever *g*, and the connection *h*, to disengage a coupling-link, substantially as described.

DAVID M. REYNOLDS.

Witnesses:

TOURO ROBERTSON,

WM. KEMBLE HALL.