(No Model.)

N. D. MUSSEY.

CAR COUPLING.

No. 263,800. Patented Sept. 5, 1882.

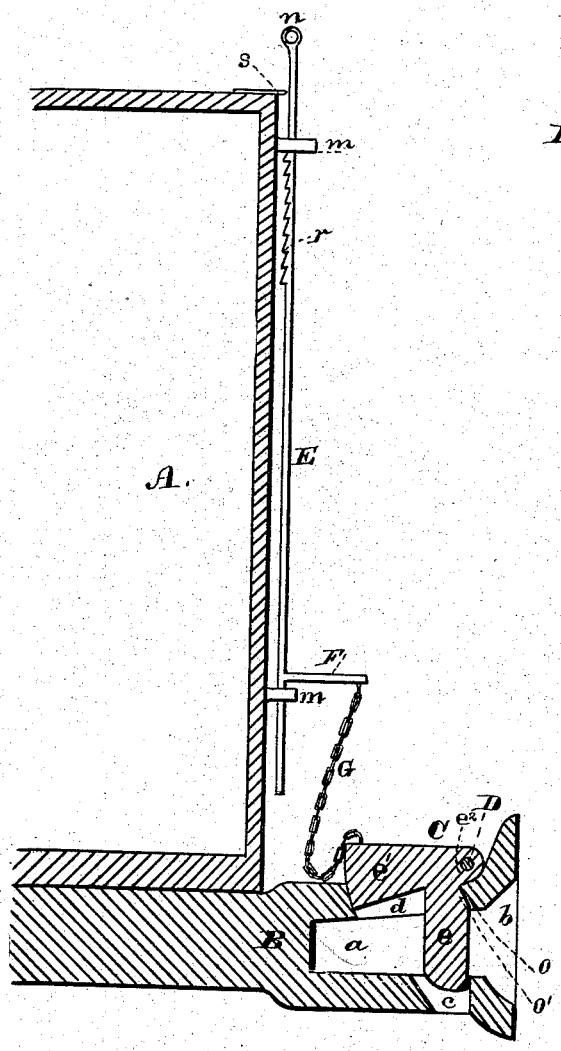

Fig. 1.

Witnesses,
Geo. H. Strong.
L. A. Towne.

Inventor.
N. D. Mussey
By Dewey & Co.
Attorneys

UNITED STATES PATENT OFFICE.

NATHAN D. MUSSEY, OF RENO, NEVADA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 263,800, dated September 5, 1882.

Application filed June 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, NATHAN D. MUSSEY, of Reno, county of Washoe, State of Nevada, have invented an Improved Car-Coupling; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a novel car-coupling of that class in which a swinging pivoted latch closes the opening or front of the draw-head and receives the impact of the approaching link, whereby it is raised and falls again through the link to secure it.

My invention consists in the details of construction, as hereinafter set forth and claimed.

Referring to the accompanying drawing, Figure 1 is a vertical section.

Let A represent the end of an ordinary box-car, under which, in the usual manner, is secured a draw-head, B. This has the usual chamber, *a*, and is provided with a flaring face, *b*. In its bottom is made an aperture, *c*, the front wall of which is vertical, and the rear wall is beveled from the rear downwardly, as shown. The top of the draw-head is provided with an aperture, *d*, the rear wall of which is curved. The front wall is inclined from the inside or lower edge backwardly, forming a point, *o*, and thence forwardly in a concave curve, ending in a convex curve, as shown.

C is the latch. This consists of two arms, *e* and *e'*, extending about at right angles and meeting at their bases in a hub, e^2, the outer face of which is rounded and fits in the concave curve of the front wall of aperture, *d*. This latch is hinged in the front of the said aperture by a pivot, D, through the walls of the draw-head and through the hub e^2. The arm *e* upon its forward side is notched out at *o*. When at rest in the aperture *d*, the latch lies with its arm *e* extending downwardly across the chamber *a*. Its lower end is curved backwardly and upwardly and fits down into aperture *c*, its front abutting against the straight wall of said aperture. The arm *e'* extends backwardly in the top of aperture *d*, and its rear end is curved to correspond to the rear wall of said aperture.

The operation of the latch is as follows: When the link enters at any point within the flaring front of the draw-head it strikes or is directed against the front of arm *e*. This is pushed back and up upon the pivot D, the latch C turning on its curved base in its bearing and throwing the arm *e'* up out of aperture *d*. When the link has passed the arm *e* the latch C returns to position, the arm *e* falling through the link and the arm *e'* returning within aperture *d*. The strain is resisted by the arm *e*, which has two points of impingement—namely, one below against the front wall of aperture *c* and one above against the front wall of aperture *d*. The point *o*, fitting in notch *o'*, lends support to the latch and resists the strain upon the link. It also prevents the latch, should the pivot-pin D work out, from working up through aperture *d*. It may become necessary sometimes to lift the latch C and throw it back in a position in which it will remain without falling. For this purpose enough space is left between the pivot D and the upper portion of the rear of the draw-face to change the center of gravity to a point forward of the pivot-pin. To insure this effect I put more weight into arm *e'* by inclining its lower side, as shown. This will keep the latch up when thrown back against the top.

In order to raise the latch to disengage it from the link I have the following device: E is a rod extending in suitable guides, *m*, from the top of the car down its end. The upper end of the rod is provided with a knob, *n*, and has upon its inner side a series of ratchet-teeth, *r*.

Upon top of the car and extending over the end is a pawl, *s*, with which the teeth *r* engage when the rod is raised to secure it at any height.

To the rod E, near its lower end, is secured an arm, F, to the end of which a chain, G, is attached, the other end of which is secured to the rear end of arm *e'* of latch C. By raising the rod E the latch C may be drawn up to free its arm *e* from the link. When the rod is released from the pawl *s* the latch drops back into position.

The aperture *c* in the bottom of the draw-head not only furnishes a point of resistance for the arm *e*, but is for the purpose of allowing stones, &c., to drop through, to prevent any obstruction to the said arm in finding its place. This is an advantage, as it keeps the arm from becoming worn.

Having thus described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

In a car-coupling, the draw-head B, having a chamber, *a*, a bottom aperture, *c*, and a top aperture, *d*, in combination with the swinging latch C, pivoted in the forward portion of the aperture *d*, and having the arms *e* and *e'*, arranged as shown, and the means for raising said latch, consisting of the vertically-moving rod E, with its teeth *r*, engaging with a pawl, *s*, arm F upon said rod, and chain G, connecting said arm with the arm *e'* of latch C, substantially as and for the purpose herein described.

In witness whereof I hereunto set my hand.

NATHAN D. MUSSEY.

Witnesses:
S. H. NOURSE,
C. D. COLE.