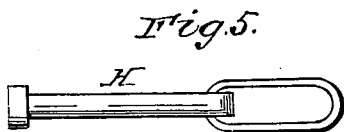
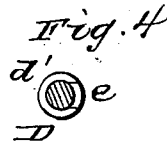
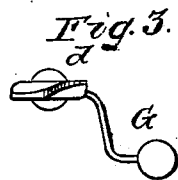
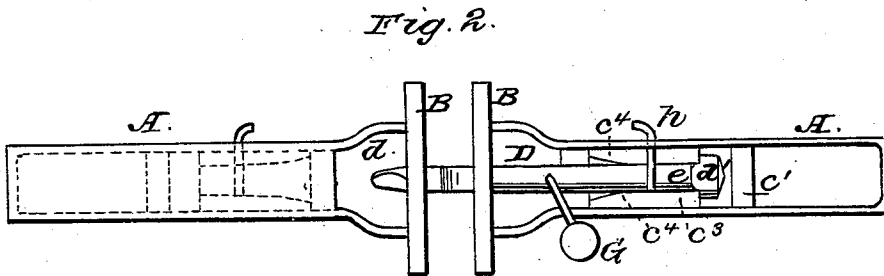
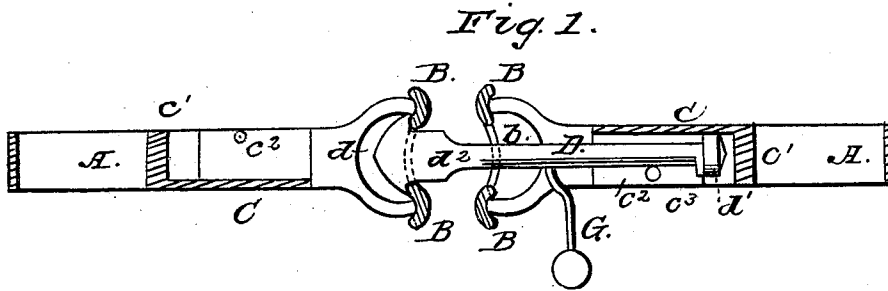


A. PERRIN.
Car Coupling.

No. 79,254.

Patented June 23, 1868.



witnesses
Edw Brown

William L. Austin

Inventor.

Abram Perrin

United States Patent Office.

ABRAM PERRIN, OF CLEVELAND, OHIO, ASSIGNOR TO HIMSELF, CHARLES L. ROWAND, GEORGE S. SELDEN, AND MARMADUKE MOORE, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 79,254, dated June 23, 1868.

IMPROVED CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ABRAM PERRIN, of Cleveland, State of Ohio, have invented a new Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in constructing a self-acting car-coupling, which shall couple itself without assistance as the cars come together, and remain securely coupled until released by hand.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 is a horizontal section.

Figure 2 is a side view.

Figure 3 is an end view of the coupling-bar or draw-bar.

Figure 4 is a section through the coupling-bar.

Figure 5 shows an auxiliary link.

A is the frame of the coupling, having riveted on its end the bumpers B. C is a casting riveted inside the frame A. Its rear portion, c^1 , extends across the frame, and acts as a stop to receive the thrust of the draw-bar in coupling. The forward part is grooved, and opens at one side, c^2 to admit the draw-bar. It also makes a shoulder, c^3 , which receives the pull of the draw-bar. Close to the shoulder c^3 the groove just fits the draw-bar. At the other end, c^4 , it flares outwards, to allow sufficient play to that end of the draw-bar.

The draw-bar D is formed with an arrow-head, d , the barb of which bears against the inside edge of the bumper B. This head is made wider than the opening between the bumpers, and consequently has to be turned from its natural horizontal position in order to enter. This is accomplished by forming the points of the arrow-head on a twist, as shown in fig. 3, so that when the head enters the opening b , the points of contact are not in the same horizontal line; and the force applied in backing the cars together, turns the head d until it enters the opening, when the weighted lever G causes it to resume once more its horizontal position.

A rod bearing against a spring would answer instead of this weighted lever, but be simply an equivalent.

This twist of the draw-bar might also be given by an incline on the bottom of the opening b , through which the arrow-head enters.

The part d^2 , just behind the head d , fills the opening b . The head d^1 , on the other end of the draw-bar, receives the pull against the shoulder c^3 , and also the thrust against the block c^1 , in coupling. Upon one side of this head d^1 is a projecting pin, e , shown in fig. 4, which fits into the groove c^2 .

When the draw-bar is forced back against the stop c^1 , there is sufficient play to allow of the draw-bar being turned, as in coupling, or by the hand applied to the weighted lever G in uncoupling; but as soon as the pull of the train comes upon the draw-bar, the pin e enters the groove c^2 , and prevents the turning of said bar; the harder the pull of the train, the firmer the bar retains its position. The pin h , dropped in from the top, secures the draw-bar in position.

The opening b in the bumpers is made high enough to permit considerable variation in the height of the cars, without affecting the operation of this coupling.

One draw-bar being sufficient for each car, should two couplings come together without a draw-bar, it can be brought from the opposite end of the car.

A supplementary link, H, fig. 5, may be carried during the change from one system of coupling to the another, so as to connect a car having the above improvement with one having the common coupling.

What I claim as my invention, and desire to secure by Letters Patent, is—

The construction of the draw-head A, with its open side, and pin h , and having stops c^1 , c^2 , and c^3 , of the form shown, in combination with the link or connecting-iron D and H, the former being provided with a head, d^1 , and lug 2, and weight G, all substantially as and for the purpose set forth.

Witnesses:

EDW. BROWN,

WILLIAM L. AUSTIN.

ABRAM PERRIN.