

A. BROWN.
CAR-COUPLING.

No. 170,227.

Patented Nov. 23, 1875.

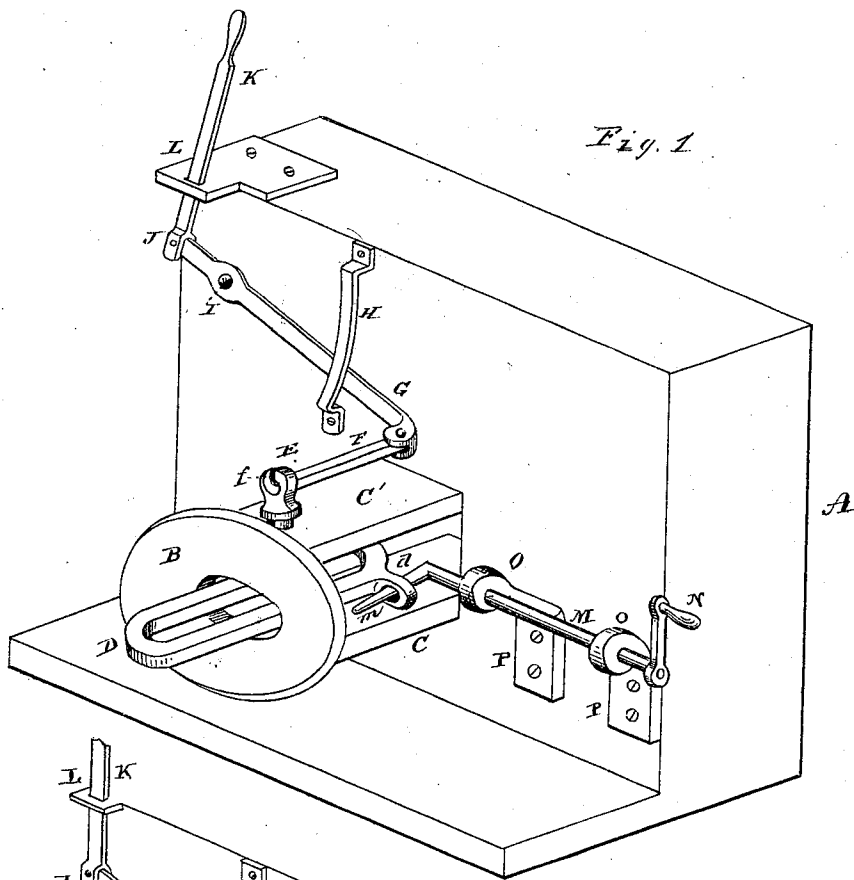


Fig. 1

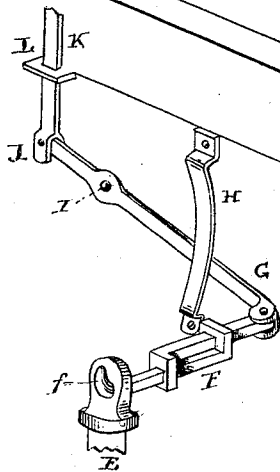


Fig. 2

WITNESSES.

W. B. Wiley
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INVENTOR.

Andrew Brown

UNITED STATES PATENT OFFICE

ANDREW BROWN, OF EDEN TOWNSHIP, (NEAR BART P. O.,) LANCASTER COUNTY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO J. B. AND B. B. DENLINGER.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **170,227**, dated November 23, 1875; application filed August 26, 1875.

To all whom it may concern:

Be it known that I, ANDREW BROWN, of Eden township, near Bart post-office, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Car-Couplings, of which the following is a specification:

My invention relates to couplings in which the ordinary pin and link are employed; and consists in a novel combination of devices by which said parts may be controlled and operated without danger to the attendant.

Figure 1 represents a perspective view of my devices in position on a car; Fig. 2, a perspective view, representing a modification of the same.

The first part of my invention consists in the arrangement of devices for operating the coupling-pin E, which is constructed and arranged in the ordinary manner, in an ordinary draw-head and buffer, B, which is supported, as usual, by springs, so that it can slide forward and backward to relieve the parts from sudden strains and shocks.

My devices for operating the pin consist simply of a horizontal lever, G, pivoted on the end of the car-body, and provided at one end with a hinged arm, F, extending forward at a right angle through the upper end of the coupling-pin, as clearly shown in Fig. 1, so that the operator, standing outside of the cars, can, by moving the outer end of the lever, raise and lower the pin. The arm being hinged to the lever is free to rise and fall at its outer end in a vertical line, notwithstanding the fact that its hinged end moves with the lever in the arc of a circle, and hence there is no danger of the pin being caused to cramp or bind in the draw-head. The hinging of the arm so that its end can be moved laterally admits of the pin being inclined and rested in the top of the draw-head in such manner that the shock of the cars coming together will cause the pin to fall through the link, rendering the operation of coupling automatic.

By arranging the arm F loosely in the head

of the pin, so that it can slide therein as the draw-head slides forward and backward, I prevent the parts from cramping, and give the operator control of the pin at all times, regardless of the position and movements of the draw-head.

In order to permit the operation of the lever from the top of the car an arm or rod, K, may be attached to its end and extended upward through a guide, L, on the car-top, as shown.

The second part of my invention relates to the arrangement for holding and guiding the link in order to insure its entry into the head of the next car.

The devices consist simply of a rock-shaft, M, arranged horizontally on the end of the car, and provided at its outer end with an operating-handle, N, and at its inner end with a right-angled arm, *m*, which passes loosely through a lateral ear, *d*, formed on the rear end of the coupling-link D, which latter, with the exception of having the ear, is made in the usual manner.

By operating the rock-shaft its arm *m* may be caused to raise and lower the rear end of the link, which, working in the narrow mouth of the draw-head as a fulcrum, will have its front protruding end elevated and depressed accordingly.

In order to permit the requisite lateral play when the cars are in motion the arm may be hinged to the rock-shaft in such manner as to have a limited movement laterally.

In order that the link may be moved laterally as well as vertically when the cars are to be coupled, the rock-shaft may be arranged to move endwise, in which case the hinging of the arm, although preferable, is not necessary.

Having thus described my invention, what I claim is—

1. In combination with the movable draw-head B and the coupling pin E, the lever G, mounted on the car-body and provided with the hinged arm F, arranged to allow the pin to move forward and backward with the

draw-head, substantially as shown and described.

2. In combination with the draw-head B and the coupling-link D, having the lateral eye *d* formed on its rear end, the rock-shaft M, provided at its outer end with the operating-handle N, and at its inner end with

the arm *m*, extending loosely through the eye of the link, as and for the purpose described.

ANDREW BROWN.

Witnesses:

WM. B. WILEY,
JACOB STAUFFER.