

A. STRAIN.
Car-Couplings.

No. 145,371.

Patented Dec. 9, 1873.

Fig. 1.

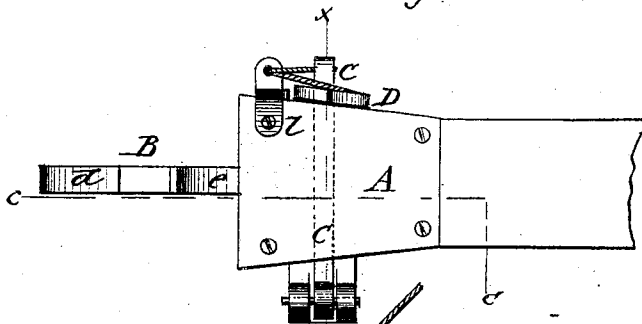


Fig. 2.

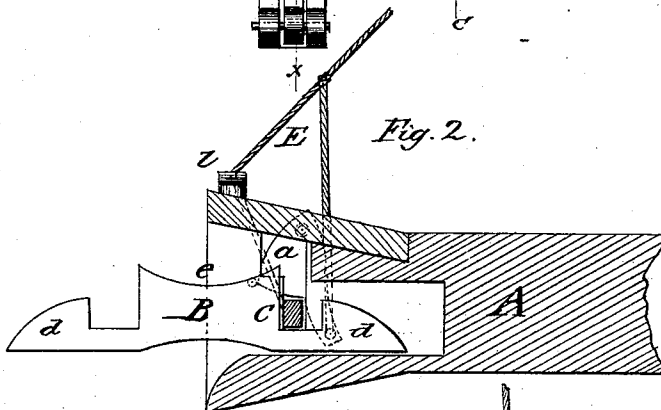


Fig. 3.

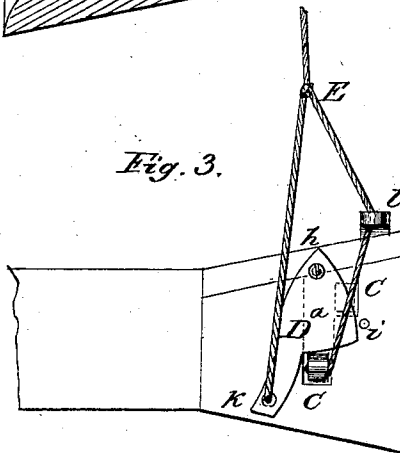
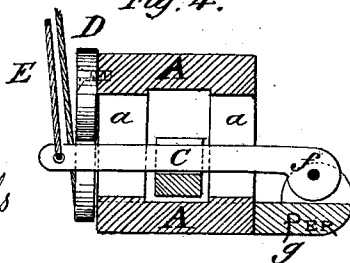


Fig. 4.



Witnesses.
C. Sedgwick
John Goethals

Inventor.
A. Strain
Munn & Co
Attorneys.

UNITED STATES PATENT OFFICE.

ALLEN STRAIN, OF GREENFIELD, OHIO.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **145,371**, dated December 9, 1873; application filed March 1, 1873.

To all whom it may concern:

Be it known that I, ALLEN STRAIN, of Greenfield, in the county of Highland and State of Ohio, have invented a new and Improved Car-Coupling, of which the following is a specification:

Figure 1 is a top view of my invention; Fig. 2, a longitudinal vertical section of the same on the line *c c*, Fig. 1. Fig. 3 is a side view, showing cord arrangement to raise the lever; and Fig. 4 is a vertical transverse section to show lever-connection.

Similar letters of reference indicate corresponding parts.

The invention consists in the improvement of car-couplings, as hereinafter described, and pointed out in the claims.

In the drawing, A is the draw-bar, having vertical slots *a* at the sides for the admission of the lever C. One slot, *a*, has at its upper end a notched recess toward the open side of draw-bar A, which supports the lever C when raised to admit the coupling-link. The coupling-link B, Fig. 2, is provided with two notches, wedge-like ends *d*, and a higher central part, *e*.

When the link B enters the draw-bar it passes, with its end *d*, below the raised lever C, till the part *e* strikes the same and causes it to drop into the notched part of the link.

The lever C is pivoted at *f* to a horizontally-projecting lug, *g*, properly applied to the lower side of draw-bar A. A triangular plate, D, is pivoted near its apex, at *h*, to the upper part of that side of the draw-bar which has the re-

cessed slot *a*. It presses by its own weight, with its base, on lever C, to prevent the escape of the coupling-link B, in consequence of the jerks and vibrations of the car, in connection with a projecting pin, *i*, applied near recess *a*. To a lever-extension, K, of plate D, and also to the end of lever C, is connected a wire rope or chain, E, which, passing through lug *l* at top of draw-bar, connects with a treadle or any other suitable arrangement on platform of car, so that the attendant may easily raise the plate D, and with it lever C, into the recess, in readiness for coupling. The side of plate D bears against lever C, so that the same remains in the recess without being too easily thrown out by the jostling of the car.

The notches of the coupling-link must be of sufficient width to allow slacking up. The coupling is accomplished without loss of time, and the link securely held by plate B.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. The triangular plate D, with extension-arm K, pivoted at *h*, in connection with pin *i*, rope E, and lever C, applied to draw-bar A, to raise and lock the same, substantially as set forth.

2. The triangular gravity-plate D, arranged to press with its base upon lever C in a slotted draw-bar, A, as and for the purpose set forth.

ALLEN STRAIN.

Witnesses:

WILLIAM H. IRWIN,
WALTER W. CALDWELL.