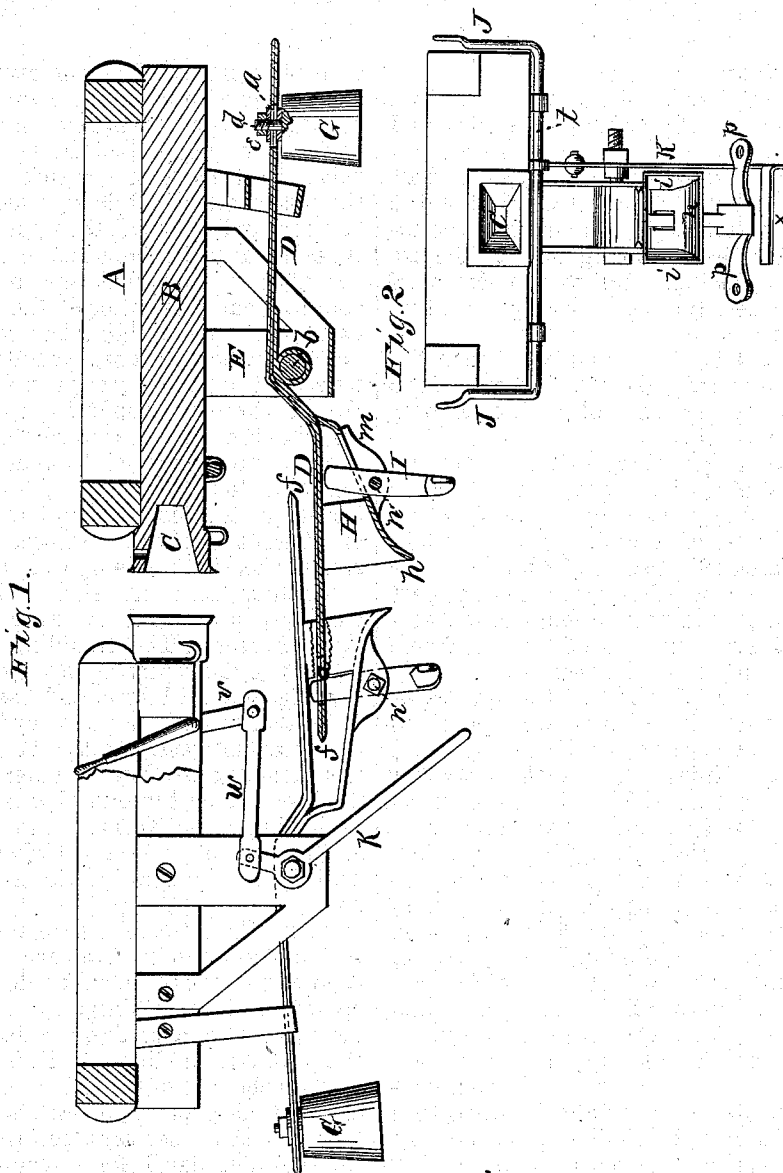


W. W. McCOLLUM.

CAR-COUPLING.

No. 186,591.

Patented Jan. 23, 1877.



WITNESSES

H. L. Ourand
E. L. Overh

INVENTOR

W. W. McCollum
Alfred Mason

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM W. McCOLLUM, OF SELMA, ALABAMA, ASSIGNOR TO H. F. MULLEN.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **186,591**, dated January 23, 1877; application filed November 20, 1876.

To all whom it may concern:

Be it known that I, WILLIAM W. McCOLLUM, of Selma, in the county of Dallas and in the State of Alabama, have invented certain new and useful Improvements in Car-Couplings; and 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, making a part of this specification.

The nature of my invention consists in the construction and arrangement of an automatic or self car-coupling, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a view of my car-coupling, part in side elevation and part in longitudinal section. Fig. 2 is a front view of one car-frame with the coupling attached thereto.

A A represent portions of the frames or trucks of two adjoining cars, each provided with an ordinary draw-bar, B, having head C at its outer or front end. To the draw-bar B is secured a stirrup, E, hanging down below the same for a suitable distance, and in this stirrup is pivoted a coupling-bar, D, extending in front and rear of the stirrup, as shown. The coupling-bar D has a longitudinal slot, *a*, near each end, and is suspended near the center in the stirrup E by means of the suspension or draw-bolt *b*. At the rear end of the coupling-bar D is suspended a balance-weight, G, for the purpose of producing oscillation by motion received from the regular vibration of the car to which the coupling-bar is attached. This weight is suspended by means of a bolt, *d*, passing up through the slot in the rear end of the coupling-bar D, and a nut, *e*, fastened on top of said bolt, whereby said weight can be adjusted out or in, as required, to counterbalance the weight of the front end of said coupling-bar. The front end of the coupling-bar is beveled, as shown at *f*, so that when two cars approach each other the coupling-bars will, from the

oscillation imparted by the cars, readily pass each other without causing any concussion by striking. Under each coupling-bar D in front of the pivot-bolt *b*, and in rear of the front slot *a*, is attached to it a receiving-jaw, H, in the bottom of which is pivoted a tumbling-bar or coupling-pin, I, the upper end of which is received in the front slot of the coupling-bar after the beveled end of the opposite coupling-bar has entered the receiving-jaw and tilted the tumbling-bar to a horizontal position, whereby it will readily drop back to a vertical position through the slot in the bar D, and thereby coupling the cars. The receiving-jaw H is constructed inclined, as shown, with a curved bottom lip, *h*, extending down to a depth of eight inches, more or less, so as to insure a coupling with all cars of different height now in use. The jaw H is also formed with side lips *i i*, so as to insure a coupling from any side or lateral motion that may be caused by wear and tear and other causes. The tumbling-bar I is suspended to the receiving-jaw by means of side bearings *m*, and bolt *n*, and has its lower end weighted, so as to fall back by its own gravity to a vertical position after the coupling-bar D has turned it down when entering the receiving-jaw. Each tumbling-bar I has arms *p p* projecting at the lower end to opposite sides, and a chain or rope, *s*, attached to them for uncoupling the cars by tilting the tumbling-bar.

Along the front of the car under the frame A is a shaft, *t*, with a lever or handle, J, at each end—that is, on each side of the car—for operating the tumbling-bar. This shaft *t* has an arm, *v*, connected by a link, *w*, with the short arm of an elbow or bent lever, K, pivoted on the end of the bolt *b*, while the other arm of said lever has at its end a projecting finger, *x*, that operates upon the lower end of the tumbling-bar I for uncoupling the cars. The cars can thus be uncoupled from either side or end of the car, as may be desired.

Instead of attaching the stirrup E to the draw-bar B, it may be attached to the frame of the car, but in such case a suitable bumper must be arranged on the car to receive the concussion.

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

1. The coupling-bar D, suspended in a stirrup, E, provided with the receiving-jaw H, and balanced by means of the adjustable weight G, substantially as and for the purposes herein set forth.

2. The combination of the pivoted and balanced coupling-bar D, having slots *a* and beveled end *f*, the adjustable weight G, receiving-jaw H, and tumbling-bar I, substantially as and for the purposes herein set forth.

3. The combination of the shaft *t*, with levers J J, and arm *v*, link *w*, elbow-lever K, and finger *x*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 10th day of November, 1876.

WILLIAM W. MCCOLLUM. [L. S.]

Witnesses:

A. P. YOUNG,

J. R. SATTERFIELD.