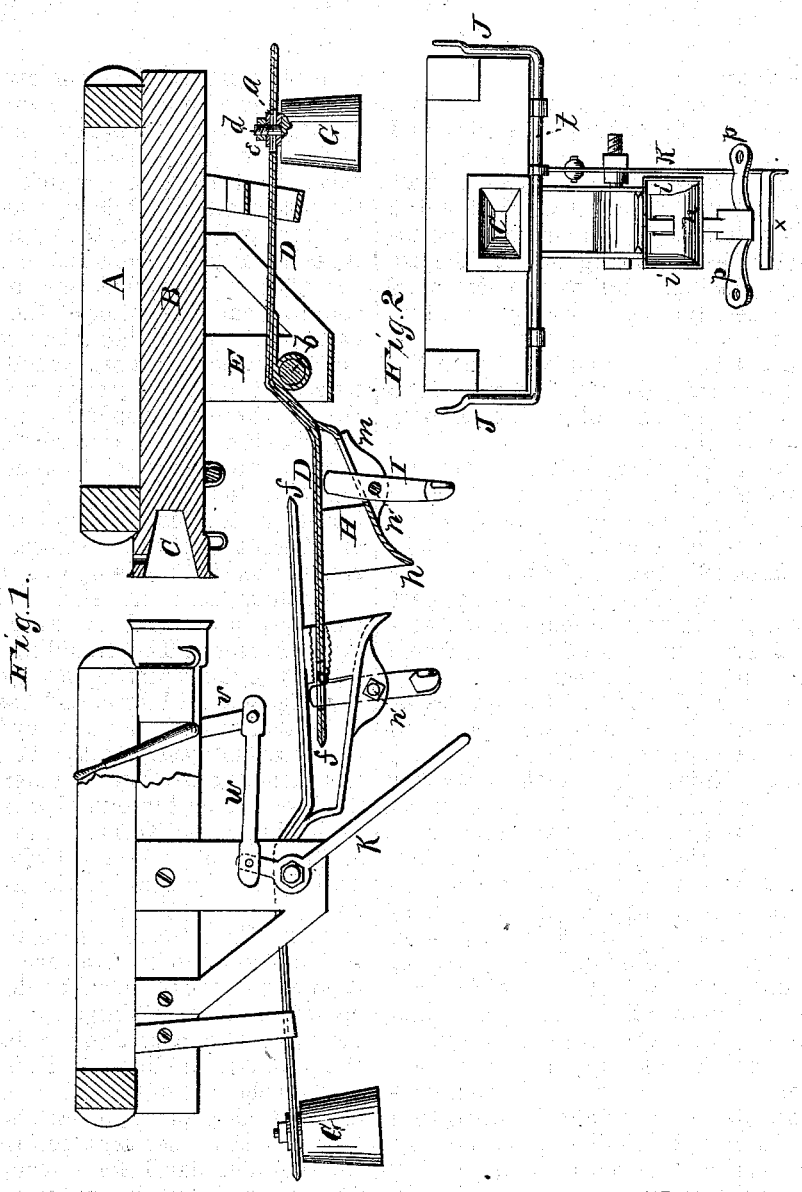
W. W. McCOLLUM.

CAR-COUPLING.

No. 186,591. Patented Jan. 23, 1877.



WITNESSES

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

IMPROVEMENT IN CAR-COUPLINGS.

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 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.