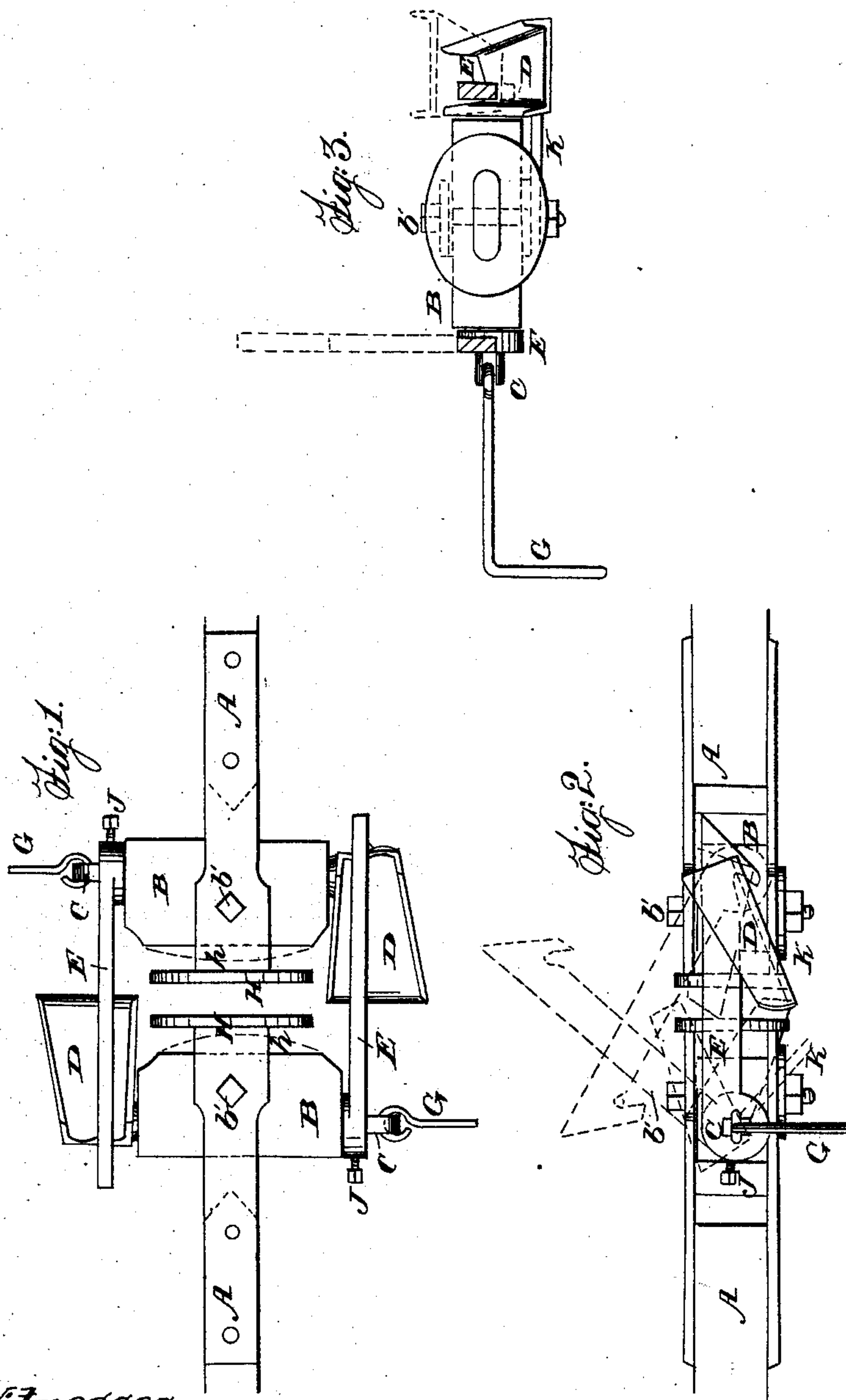


J. MILNE.  
Car Coupling.

No. 69,574.

Patented Oct. 8, 1867.



Witnesses

E. B. Forbush  
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Inventor.

James Milne

# United States Patent Office.

JAMES MILNE, OF PERTSHIRE, SCOTLAND.

Letters Patent No. 69,574, dated October 8, 1867.

## 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, JAMES MILNE, of Perthshire, Scotland, now residing at Buffalo, in the State of New York, have invented a new and improved Car-Coupler; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure I is a top plan view.

Figure II is a side elevation.

Figure III is an end elevation.

Letters of like name and kind refer to like parts in each of the figures.

A represents the main beam of a draw-head of common construction.

The nature of my invention consists in the construction of a coupler having a shaft with a lifting-plate at one end, and a coupling-hook at the other, which shaft may be connected to the draw-beam by a pivot or joint connection, in such manner that the shaft may turn to effect a coupling or uncoupling, and have a central movement upon its joint or pivot, in order to compensate for any lateral or unequal movement of the two cars, which are coupled together.

The device is duplicate; one part placed on each end of the car, and the two parts acting together on the contiguous ends of two cars to produce the effect.

B represents a cross-head of metal, which is connected to the draw-head A by means of the pivot-bolt *b'*, in such manner that the cross-head may move or turn upon its central pivot-bolt in a horizontal plane, to compensate for any lateral movement of the cars. Through this cross-head passes the shaft C, which is free to turn or revolve in the cross-head. Upon one end of this is fastened a lifting and coupling-plate, D, and upon the other end is fixed the coupling-hook E. The hook and plate are both securely fastened to the shaft C, and are of sufficient strength to endure any ordinary strain to which they may be subjected. The outer bevel face of the hook will slide up the incline face of the receiving-plate on the duplicate coupler, which is fixed upon the end of the approaching car, and, by the gravity of the hook, will drop down and hook on to the plate, as shown in Figs. I and II, so that the hook of one fastens to the plate of the other, and thus the two co-act together. A rod, G, is hinged to one end of the shaft C, and is supported upon the platform of the car, so that its bent end will project sufficiently beyond the platform to enable a man to grasp it while standing outside of the cars and track, and effect an uncoupling of the cars. By means of this rod the shaft C may be turned, and lift the plate and hook attached to the shaft C, and the plate thus lifted will act upon the hook-bar of the duplicate, and lift that also, as shown by the red dotted lines in Fig. II, and thus effect an uncoupling of the cars. The bar G or its equivalent can easily be placed vertically, so that a man standing upon the platform can easily uncouple the cars. H represents the bumper-heads, as commonly used on cars having a link and pin coupler. These heads may be dispensed with, and are not needed in the use of my coupler. The cross-head B will serve all the purposes of a bumper head, and may be so used. When used as a bumper head, it should be made a little fuller, or more rounded out at the centre, as shown by the red dotted line *h* in Fig. I. This coupler is self-acting, to effect a coupling of the cars, and there is so much latitude of movement that if two cars upon which it is used stand at different heights, the two parts of the coupler will come together and fasten with equal facility. It may be applied to all cars now in use with but little expense, and will be found safe, convenient, and effective in practice. The plate D may or may not have side pieces *d'*, as may be preferred. These plates, as well as the cross-head B, shaft C, and hook E, may be made of any required size, proportion, and strength. The hooks may be set at any required angle or pitch, and made to correspond with the pitch of the plate by means of set-screws J. There is a stop-bar, K, interposed to prevent the hook and plate from dropping down too far, so that the bevel end of the hook will always be sure to strike and slide up the incline face of the receiving-plate.

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

1. The pivoted cross-head B, shaft C, plate D, and hook E, in duplicate for coupling cars, arranged and combined substantially as described.

2. I claim, in combination with the above, the rod G, projecting horizontally or vertically, to effect the uncoupling of the cars, substantially as described.

JAMES MILNE.

Witnesses:

E. B. FORBUSH,

B. H. MUEHLE.