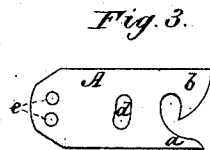
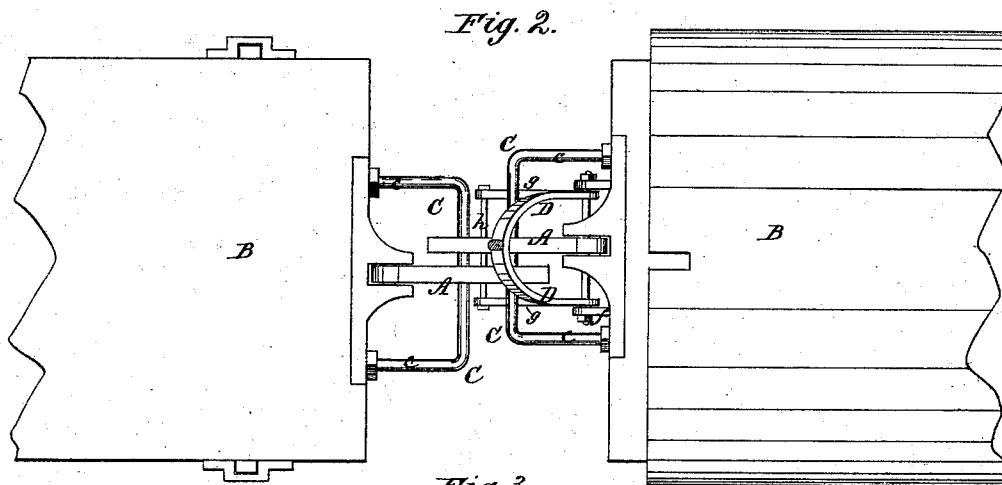
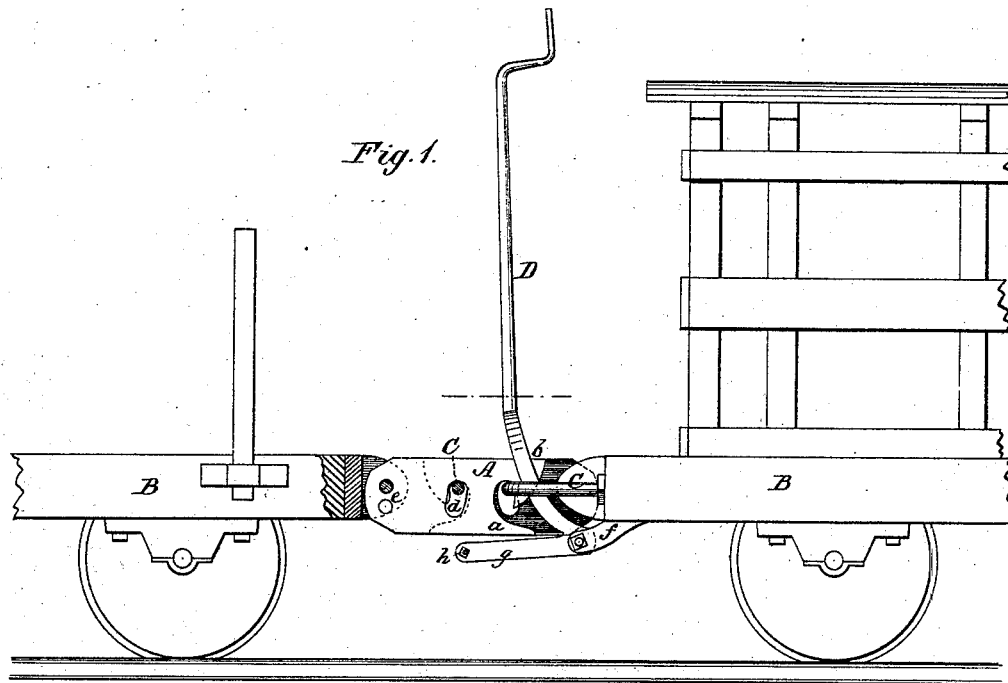


W. L. HARVEY.  
Car-Coupling.

No. 214,657.

Patented April 22, 1879.



WITNESSES:

*W. W. Hollingsworth*  
*Amos W. Hart*

INVENTOR:

*W. L. Harvey*

BY

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WASHINGTON L. HARVEY, OF DANVILLE, VIRGINIA, ASSIGNOR TO HIMSELF  
AND DANIEL DUGGER, OF SAME PLACE.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **214,657**, dated April 22, 1879; application filed  
November 26, 1878.

*To all whom it may concern:*

Be it known that I, WASHINGTON L. HARVEY, of Danville, in the county of Pittsylvania and State of Virginia, have invented a new and Improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the same.

The object of my invention is to provide an improvement in the class of automatic couplings for railway-cars, more particularly cars which are employed for carrying freight.

The improvement is embodied in coupling-hooks of peculiar construction, and in horizontal draft-rods, which are respectively pivoted and fixed on the front of each car; also, in a bifurcated acute-angled lever, which is pivoted to each car and projects upward, so that it may be operated from the top of the car for the purpose of disengaging the hooks from the draft-rods, and thereby uncoupling the cars.

In the accompanying drawings, forming part of this specification, Figure 1 is a side view of fragments of two freight-cars connected by my coupling, which is in section. Fig. 2 is a plan view of the same. Fig. 3 is a side view of one of the coupling-hooks detached.

A A indicate the coupling-hooks, one of which is pivoted to the front of each car B. The hooks are each provided with a forwardly-projecting prong, *a*, located beneath the hook proper, *b*, for the purpose of aiding in uncoupling.

A bent horizontal rod, C, is attached to each car, its parallel arms *c* passing through the front beam at points contiguous and in line with the pivot of the hook A.

Each hook is provided with a slot, *d*, through which the adjacent rod C passes. The function of the rod is twofold—first, to serve as a point of attachment for the hook attached to another car; second, to support the contiguous hook in position for coupling with the rod on another car.

The long beveled front edge of each hook will ordinarily enable it to couple cars differing considerably in height; but where the difference in height is extreme the hooks may be pivoted higher or lower, they being provided with two or more pivot-bolt holes, *e*, as shown in Figs. 1 and 3.

To connect cars having my improved coupling devices attached to them, it is obviously only necessary that they shall be run together, since each hook will in such case automatically engage with the draft-rod C on the opposite car.

The device I employ for uncoupling is a long lever, D, which extends to or above the top of the car, and is bifurcated and bent at an acute angle at its lower end, and pivoted at the apex of the angle to rigid arms *f*, which extend below the pivot of the hook. The normal position of the lever is a forward inclination, it being supported by the draft-rod C. The outer ends of the short arms *g* of the lever are connected by a rod, *h*, and this latter comes in contact with the prong *a* of the adjacent hook A when the lever D is tilted backward on their pivots, thus elevating the hooks sufficiently to allow them to free themselves from the draft-rods C on the opposite car.

Thus, by my improvement, cars may be coupled automatically, and also easily uncoupled, (by a person standing on the top of either,) without the necessity of entering between them for either purpose, and even while the cars are in motion.

The lever D may be pivoted at one side of the front of a car, in place of being bifurcated and pivoted, as shown.

I do not claim a car-coupling having hooks which are supported horizontally by rigid arms; nor do I broadly claim a lever so arranged as to raise the hooks, and thereby uncouple the same.

What I claim is—

The combination, with the horizontal draft-rods C and the slotted and pivoted coupling-hooks, having prongs *a*, of the angular lever D, pivoted at the apex of its angle, and extended upward and resting normally on said draft-rods, and the rod *h*, connecting its horizontal arms, and serving, in the act of uncoupling, to elevate said hooks by contact with their prongs, as shown and described.

WASHINGTON L. HARVEY.

Witnesses:

AMOS W. HART,  
SOLON C. KEMON.