

B. ROWELL.  
CAR COUPLING.

No. 190,375.

Patented May 1, 1877

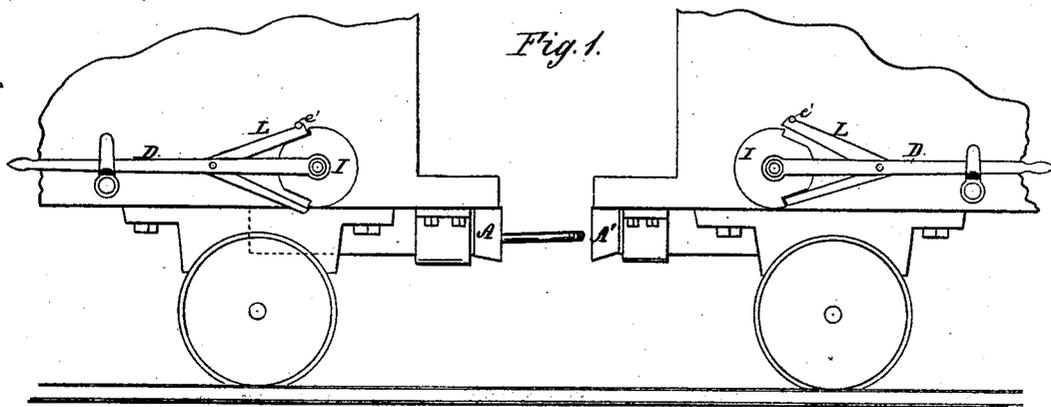


Fig. 1.

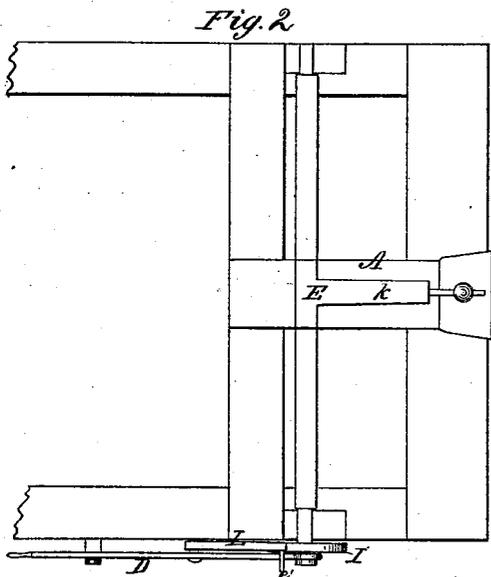


Fig. 2.

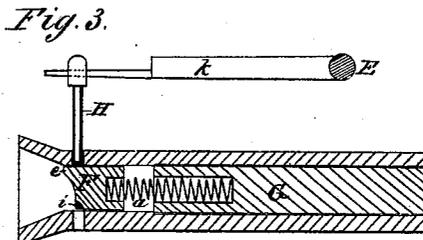


Fig. 3.

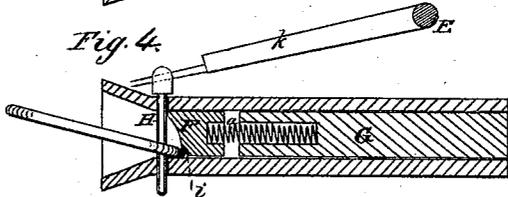


Fig. 4.

WITNESSES:

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

INVENTOR:

*Benning Rowell*

BY

*Rowell & Co.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

BENNING ROWELL, OF WEST SPARTA, ASSIGNOR OF ONE-HALF HIS RIGHT  
TO GEORGE M. OSGOODBY, OF NUNDA, NEW YORK.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **190,375**, dated May 1, 1877; application filed  
February 16, 1877.

*To all whom it may concern:*

Be it known that I, BENNING ROWELL, of West Sparta, in the county of Livingston and State of New York, 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 invention is an improvement in the class of automatic car-couplings; and the invention pertains to the construction and arrangement of parts, as hereinafter described and claimed.

In the accompanying drawing, forming part of this specification, Figure 1 is a side elevation of portions of two cars with my improved coupling attached. Fig. 2 is a top-plan view of the coupling. Figs. 3 and 4 are detail sectional views.

A A' represent opposing draw-heads, provided, respectively, with coupling-pins, which are operated by pawl-levers D and T-shaped rock-shafts E.

A block, F, is placed in the mouth or front portion of each draw-head, and connected by a spiral spring, *a*, to a filling-piece, G, which is placed and secured between the rearwardly-extended arms of the draw-head. The spring pushes the block F forward. The latter is provided on its face with a lip or projection, *e*, and recess *i*, Figs. 3 and 4.

The projection *e* serves to support the coupling-pin H until the trigger-block F is forced back by the link of the opposite draw-head. The recess *i* receives the end of the link when it is to be supported (as shown in Fig. 4) in position to enter the opposite draw-head.

The T rock-shaft is arranged transversely of the bed of the car, and its middle arm *k* is connected with the coupling-pin H, so that the oscillation of the rock-shaft will always correspond with the adjustment or up-and-down movement of the pin.

A notched or ratchet disk, I, is fixed on one end of the shaft E, and the pawl-lever D is also pivoted loosely thereon. A V-shaped pawl, L, is pivoted to the lever, the respective arms of which serve to engage or lock with the notches or teeth of the ratchet. When the V-pawl is in the position shown on the right, Fig. 1—that is to say, when its lower arm is engaged with the lower tooth of the ratchet—the pin is held up. When the link enters the draw-head, it pushes back the trigger-block, and the combined weight of the pin and arm *k* of the rock-shaft causes the pin to drop through the link. Simultaneous with this movement the ratchet is turned, and the upper arm of the V-pawl falls into the corresponding notch of the ratchet, and locks the shaft with its arm *k* horizontal, and thus holds the pin coupled with the link, as shown on left-hand side, Fig. 1. The action of the device in coupling is therefore entirely automatic, and the link cannot be disengaged except by first unlocking the pawl from the ratchet. To enable this to be conveniently done, I provide the upper arm of the pawl with a handle, *e'*, so that the pawl may be raised whenever required to free its upper arm from the notch of the ratchet.

The pawl-lever is shown placed horizontal; but it may be also placed vertical, and is specially applicable to platform and box freight-cars.

What I claim is—

In a car-coupling, the combination of the lever and pivoted V-shaped pawl, the T rock-shaft, the ratchet or toothed link fixed on the end thereof, and the coupling-pin and draw-head, all constructed and arranged as shown and described, to operate as specified.

BENNING ROWELL.

Witnesses:

GEO. M. OSGOODBY,  
AMOS W. HART.