G. RULAND.
Car-Coupling.

No. 220,035. Patented Sept. 30, 1879.

Fig. 2.

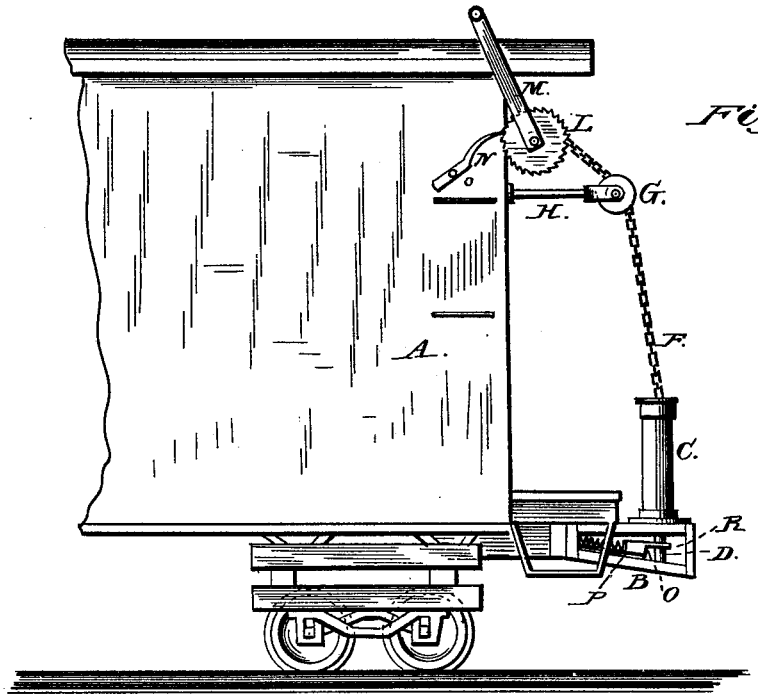


Fig. 1.

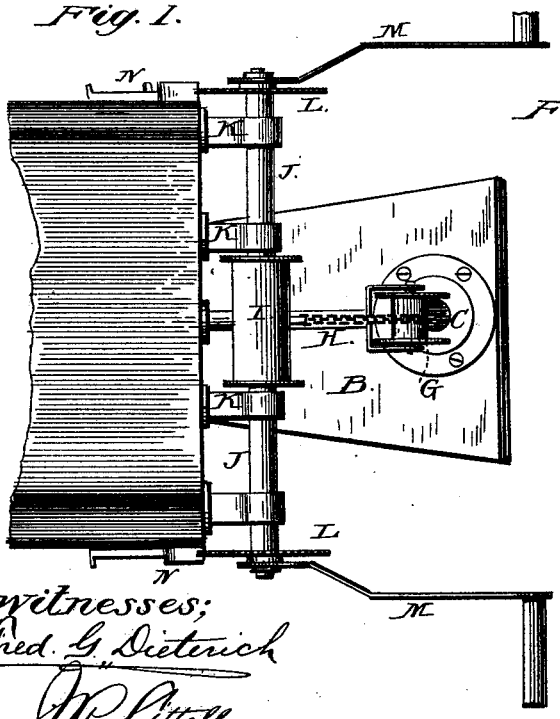
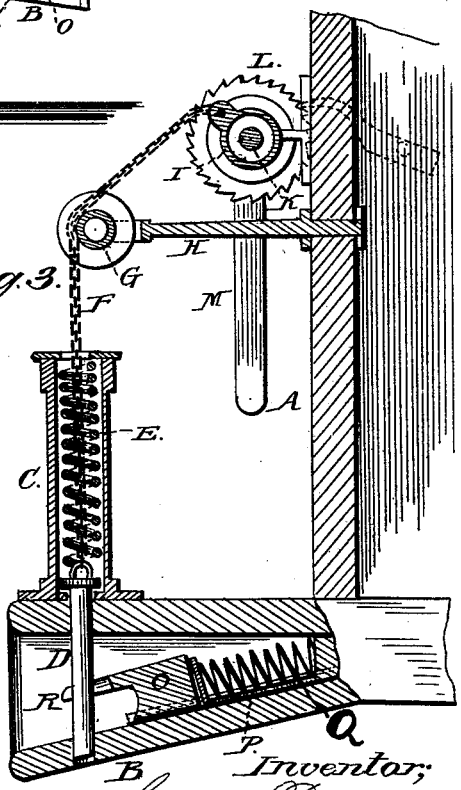


Fig. 3.



Witnesses;
Fred. G. Dieterich
J. R. Littell,

Inventor;
George Ruland,
by C. A. Snow, atty.

UNITED STATES PATENT OFFICE.

GEORGE RULAND, OF BARABOO, WISCONSIN.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **220,035**, dated September 30, 1879; application filed June 20, 1879.

To all whom it may concern:

Be it known that I, GEORGE RULAND, of Baraboo, in the county of Sauk and State of Wisconsin, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a top plan. Fig. 2 is a side view, and Fig. 3 is a vertical longitudinal sectional view.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to car-couplings; and it consists in certain improvements in the construction of the same, which will be hereinafter more fully described, and particularly pointed out in the claims.

In the drawings, A represents the end of the car, and B the draw-head. Upon the latter is arranged a vertical cylindrical tube, C, in which slides the coupling-pin D, which is adjustable in holes in the draw-head in the usual manner.

In tube C, above the head of the coupling-pin, is arranged a coiled spring, E, forcing the pin in a downward direction. A chain, F, attached to the head of the coupling-pin, passes through the tube over a pulley, G, arranged upon a stem or bracket, H, attached to the end of the car, and to a drum, I, upon a shaft, J, to which said drum the end of the chain is secured.

The shaft J, which is arranged in suitable hangers K upon the end of the car, is provided at the ends with ratchet-wheels L L and cranks or handles M M.

Pawls N N, pivoted to the sides of the car, engage the ratchet-wheels L L.

In the draw-head B, I arrange a bumper, O, sliding between suitable guides P P, and working against a stout spring, Q, placed at its rear end. The front end of the bumper is provided with arms R R, extending forwardly on the sides of the coupling-pin, for the purpose of guiding the link when the operation of coupling takes place.

By operating either of the cranks M M the coupling-pin is lifted into tube C by the mechanism above described, and the car thus made ready for coupling. The link is adjusted in the draw-head of the next car. When the cars come together the attendant suddenly releases pawls N N from ratchets L L, thus releasing the coupling-pin, which, by the spring E, is forced down rapidly into the draw-head, thus making connection with the link.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, with the draw-head B, having tube C, coupling-pin D, and spring E, of the shaft J, journaled transversely upon the end of the car, and having drum I, ratchet-wheels L L, and handles M M, the pawls N N, the pulley G, and the chain F, connecting drum I with the coupling-pin, as set forth.

2. The combination, with the draw-head B, having guides P P, of the bumper O, having arms R R, fitting on the sides of the coupling-pin and sliding in said guides, and the spring Q, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

GEORGE RULAND.

Witnesses:
I. SCHOLLENBERG,
SIMON MELZE.