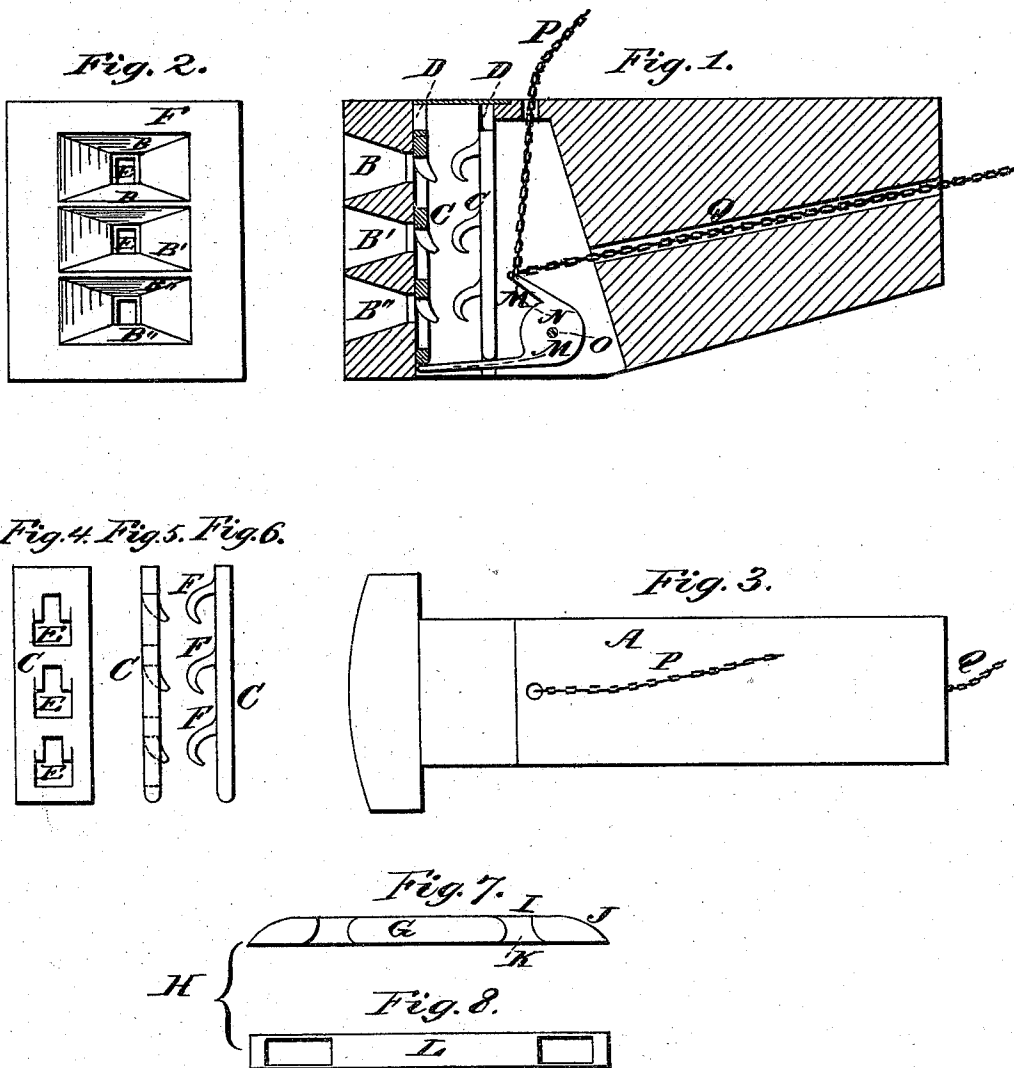


P. SWINEFORD.
Car-Couplings.

No. 143,791.

Patented Oct. 21, 1873.



Witnesses.

W. B. Wedgwood
Alexander Lynch

Inventor:

Inventor:
Philip Swineford
by *J. F. Ferriss*
his atty

UNITED STATES PATENT OFFICE.

PHILIP SWINEFORD, OF MIDDLEBURG, PENNSYLVANIA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **143,791**, dated October 21, 1873; application filed July 10, 1873.

To all whom it may concern:

Be it known that I, PHILIP SWINEFORD, of Middleburg, in the county of Snyder and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

This invention relates to automatic car-couplings; and it consists in a combination of devices hereinafter described, for the purpose of coupling cars at the same or different elevations, and for uncoupling them by an operator upon the top or platform of the car, or by the engineer at the engine.

A represents a draw-head, having a series of jaws, B B' B'', one above the other. C is a vertical slide in a groove, D. This slide has slotted openings E E E, the upper edges of which are beveled to throw the slide up when struck by the link. H is a link, having beveled heads J and necks K. M is a curved lever, having its fulcrum at O. The vertical slide C rests upon the long arm of this lever, and the slide is shorter than the groove in which it works, so as to permit the slide to be raised for the link to pass through the openings. The chain P extends from the power end of the lever to the top or platform of the car. The chain Q extends from the power end of the lever beneath the cars to the engine. The link H usually rests in one of the jaws of the draw-head. When the cars come together

the beveled head of the link enters one of the openings in the draw-head upon the other car, and strikes the beveled edge of the opening E in the slide C, raising it for the admission of the head of the link, after which the slide, by force of gravity, falls to its place, the slot F inclosing the neck K of the link. The slide, in a modification of this invention, may have curved pins F F, and the link may be in the form shown at L, having openings near the ends. In that case the curved pin will enter the opening in the link as the slide falls. The link can be released and the uncoupling accomplished by raising the slide by means of either of the chains. The series of openings in the draw-head insures the entrance of the link when the cars are not on the same level.

What I claim is—

1. In a draw-head having a series of jaws, B B' B'', the vertical slide C, having a series of slotted openings, and the bent lever M, the whole adapted to the link G, and constructed and combined substantially as and for the purpose set forth.

2. In a draw-head having a series of jaws, B B' B'', the vertical slide C, bent lever M, chains P Q, the whole constructed and combined substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of July, 1873.

PHILIP SWINEFORD.

Witnesses:

JOS. T. K. PLANT,
W. A. BOSS.