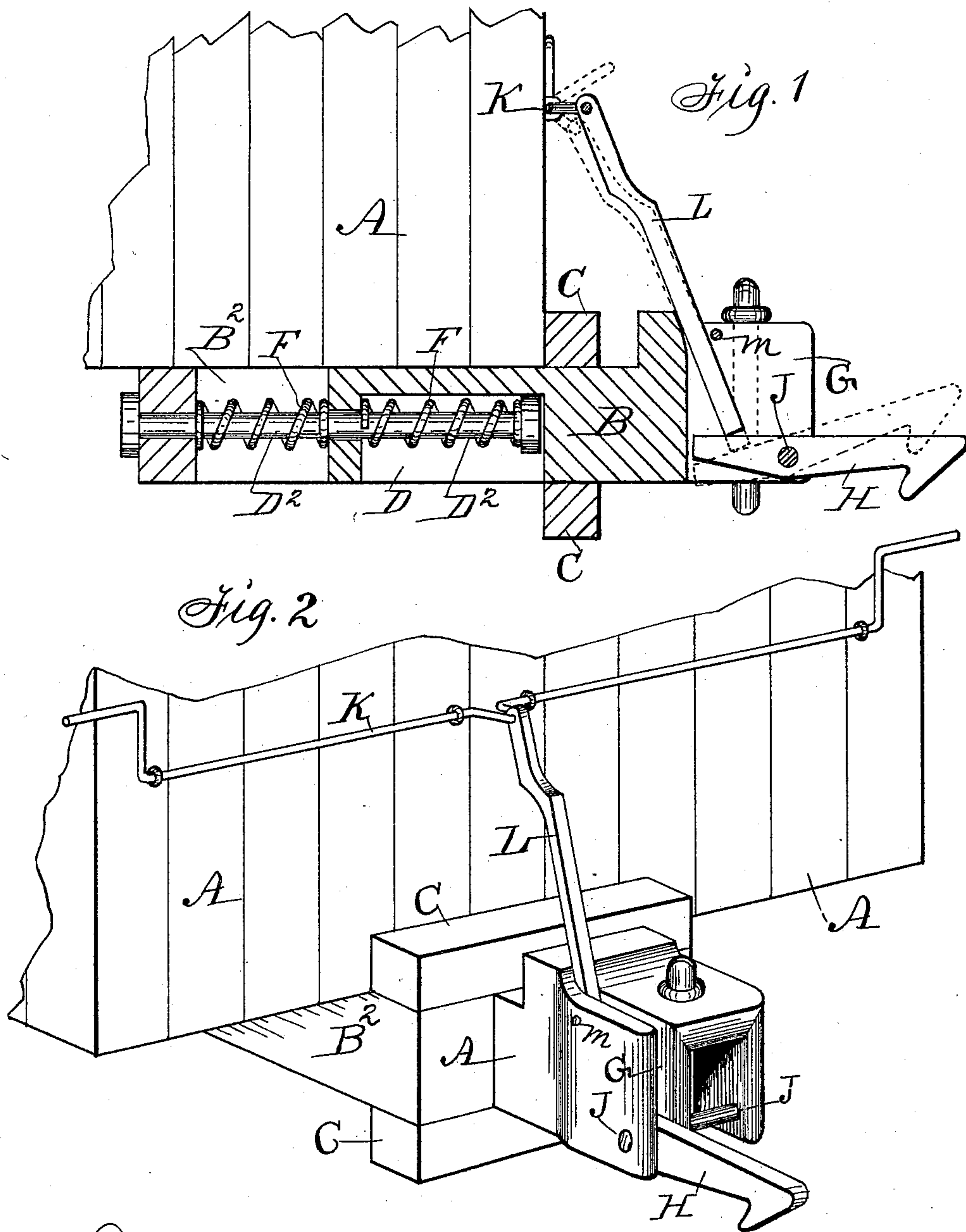


(No Model.)

W. GREENWAY & J. STRICKLAND.
CAR COUPLING.

No. 404,967.

Patented June 11, 1889.



Witnesses:
R. H. Orwig.
W. Smith

Inventors: William Greenway
James Strickland,
By Thomas G. Orwig, atty.

UNITED STATES PATENT OFFICE.

WILLIAM GREENWAY AND JAMES STRICKLAND, OF HASTINGS, NEBRASKA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 404,967, dated June 11, 1889.

Application filed October 23, 1888. Serial No. 288,891. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM GREENWAY and JAMES STRICKLAND, citizens of the United States of America, and residents of Hastings, in the county of Adams and State of Nebraska, have invented an Improved Automatic Car-Coupling, of which the following is a specification.

Our improvement relates to that kind of couplings in which pivoted hooks are reciprocally operated.

Our invention consists in the construction and combination of a draw-head, a coupling-hook, and mechanism for lifting the hook, as hereinafter set forth, pointed out in our claim, and illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view, and Fig. 2 a perspective view, showing our invention applied to a car as required for practical use.

A represents a car.

B is a draw-bar, fitted between parallel bars B^2 , fixed to the bottom of the car, as required, to restrict the lateral motion of the draw-bar.

C are cross-pieces fixed to the bars B^2 to support the draw-bar in a horizontal position.

D is a cavity in the rear portion and under side of the draw-bar.

D^2 is a metal bar extended through a bore in the rear end of the draw-bar and also through a cross-piece fixed to the bottom of the car at the rear ends of the fixed bars B^2 .

F are springs placed on the bar D^2 in such a manner that they will serve as buffers to prevent jarring and concussion. Heads on the ends of the bar D^2 prevent it from slipping out of its bearings. The head of the draw-bar has a link-cavity and pin-hole adapting it to be coupled to another with a common link and pin.

G is a slot in the side of the draw-head, and H is a coupling-hook pivoted in the slot in such a manner that its front end will project forward and have vertical play, as indicated by dotted lines in Fig. 1, and as required to couple and uncouple. The bolt J, which supports the hook, is extended through a horizontal bore in the draw-head and extends through the link-cavity, so that the hook of a mating draw-head will enter the cavity and engage the bolt. The link-cavity is preferably open on its under side.

K is a rock-shaft in bearings fixed to the

car. It has a lateral bend at its center, from which a bent bar L is suspended in such a manner that its free end will extend down through the slot G and engage the rear end of the pivoted hook H, and, by force of gravity, retain the hook balanced in a horizontal position. Crank-handles on the ends of the rock-shaft come in contact with the car and restrict the downward pressure of the bar L upon the end of the hook.

m is a pin fixed across the slot to restrict the forward motion of the bar, as required, to retain it on the rear end of the hook.

In the practical use of our coupling, when two cars are equipped therewith and come together on a track, the hook of one will enter the link-cavity of the other and fasten to the bolt J, that extends through the cavity, and both hooks will be thus automatically engaged to reciprocally couple the two draw-bars and two cars together. To uncouple, a person at either side of the cars can seize the handle on the end of the rock-shaft and turn it so as to press the bar suspended therefrom upon the rear end of the hook to lift the hook and disengage it from the bolt or cross-bar.

We are aware that a draw-head has had a hook pivoted on one side of a link-cavity and mechanism connected with the hook for lifting the hook; but our manner of arranging and combining a rock-shaft and a bar for balancing a hook by force of gravity and elevating it by pressure, as required in uncoupling the hook from a mating draw-bar, is novel and greatly advantageous.

We claim as our invention—

A draw-bar having a link-cavity adapted to receive a coupling-link of common form, a coupling-hook pivoted in a slot at the side of the link-cavity, and a pivoted bolt, or its equivalent, extended horizontally across the link-cavity, a rock-shaft in bearings fixed to the car, and a bar suspended from the rock-shaft to balance the hook by force of gravity and to elevate the hook by operating the rock-shaft, arranged and combined with a car to operate in the manner set forth, for the purposes stated.

WILLIAM GREENWAY.
JAMES STRICKLAND.

Witnesses:

CHAS. EDMUNDSON,
R. A. BOYD.