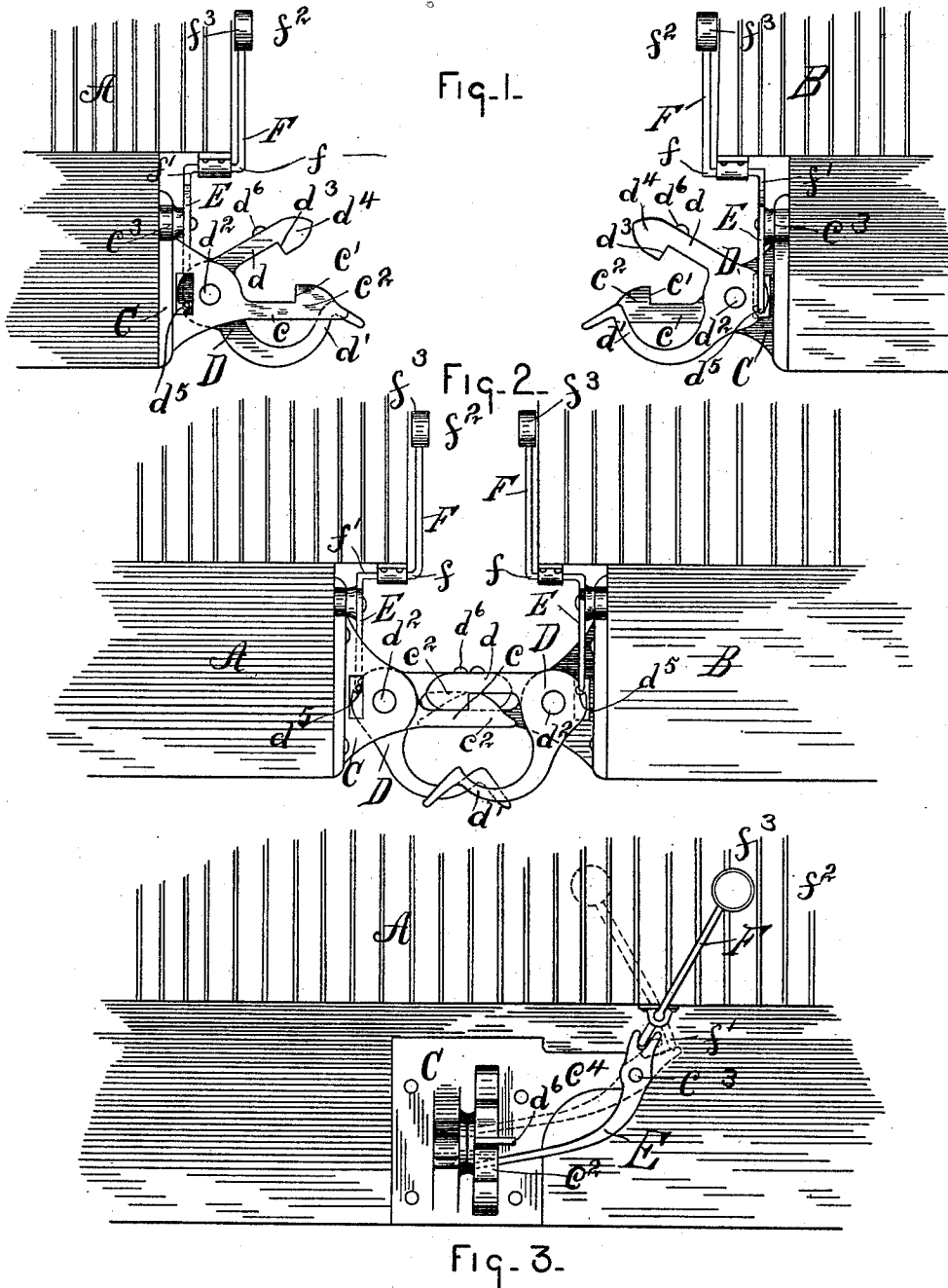


(No Model.)

H. VON TIDEMAN & J. COOK.
CAR COUPLING.

No. 465,603.

Patented Dec. 22, 1891.



WITNESSES

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HENRY VON TIDEMAN AND JOHN COOK, OF DETROIT, MICHIGAN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 465,603, dated December 22, 1891.

Application filed April 11, 1891. Serial No. 388,520. (No model.)

To all whom it may concern:

Be it known that we, HENRY VON TIDEMAN and JOHN COOK, citizens of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Car-Couplers; and we 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 the same, reference being had to the accompanying drawings, which form a part of this specification.

Our invention relates to safety car-couplers, and has for its object the production of a coupler that automatically couples and locks itself when the cars come together and that may be uncoupled from the side of the car or from the platform.

Figure 1 shows the adjacent ends of two cars provided with our coupler, one on each car, prepared to engage and couple with that on the other car. Fig. 2 shows the same after the engagement of the couplers. Fig. 3 shows one end of a car with lever for operating coupler.

In the drawings, A and B represent the adjacent ends of two cars.

C is the stationary part of the coupler attached to the frame of the car beneath the body and to which the other parts of the coupler are attached. Its projecting part *c* forms a draw-bar and is provided with the shoulder *c'*, forming a hook *c²*. The part D has its portions *d* and *d'* formed on each side of its pivot *d²*. The section *d* is provided with a shoulder *d³*, forming a hook *d⁴*. The purpose of the special form of these portions will appear in the description of the operation of the device.

E is a lever pivoted at *c³* to the projecting portion *c⁴* on part C, and engaging at right angles with the part D at *d²*, and at its opposite end with an operating-lever F. This lever is pivoted underneath the car by providing suitable bearings for its offset portion *f*, which adapts it to operate the lever or dog E by the movement of the part *f'* when force is applied at the end *f²*. This end of the lever

we provide with a weight *f³* to cause it to move by gravity and remain at either extreme of its movement.

The operation of our device is as follows: The coupler is caused to open and the part D to take the position shown in Fig. 1 by throwing the lever F into the position shown in Fig. 3. This operates the lever or dog E and depresses the rear portion of part D and elevates the hook *d⁴* and the lower portion *d'*. If the cars are now brought together, the draw-bars *c* of the stationary part C on the respective cars will pass and lay alongside of each other, and in passing will engage and depress the part *d'* on the opposite car, which causes the elevated hook *d⁴* to depress until just low enough to clear the part *c*, at which time the lever F will have carried its weight over the vertical position and put it in a position to complete the movement and cause the parts *c³* and *d⁴* to engage and lock. When locked, the position is as shown in Fig. 2.

To enable us to unlock both couplers at once from one car, we provide on the upper edge of the part *d* the lug *d⁵*, adapted to project over the corresponding part on the adjoining coupler, so that when one of the hooks *d⁴* is raised by means of the lever F it will carry with it the other hook and unlock both connections.

The fixed part C may be attached to the car in any way desired and to any part of the car desired, and the form of the lever F varied to meet the conditions.

The couplers are unlocked by throwing the lever F over, as described, for preparing the couplers for engaging one another.

In case the cars come together when the couplers are closed, the point *c* will raise the hooks *d⁴* of the respective couplers and lock with them the same as if the couplers were open when the cars came together.

What we claim is—

1. In a car-coupler, the combination of the draw-bar *c*, the part D, formed as shown and described, pivoted to said draw-bar, said draw-bar *c* and part D adapted to engage with and couple to like parts on an adjacent

car, lever E, connected to and adapted to operate with said part D, and lever F, engaged with said lever E, substantially as and for the purposes described.

- 5 2. In a car-coupler, the combination of the draw-bar *c*, hook *d*⁴, pivoted to said draw-bar and having formed integral therewith arm *d*⁷ and lug *d*⁶, and levers E and F, all of said parts adapted to operate together in engaging

with and coupling to similar combination on adjacent car, substantially as described.

In testimony whereof we sign this specification in the presence of two witnesses.

HENRY VON TIDEMAN.
JOHN COOK.

Witnesses:

MARION A. REEVE,
DELL J. BROWNE.