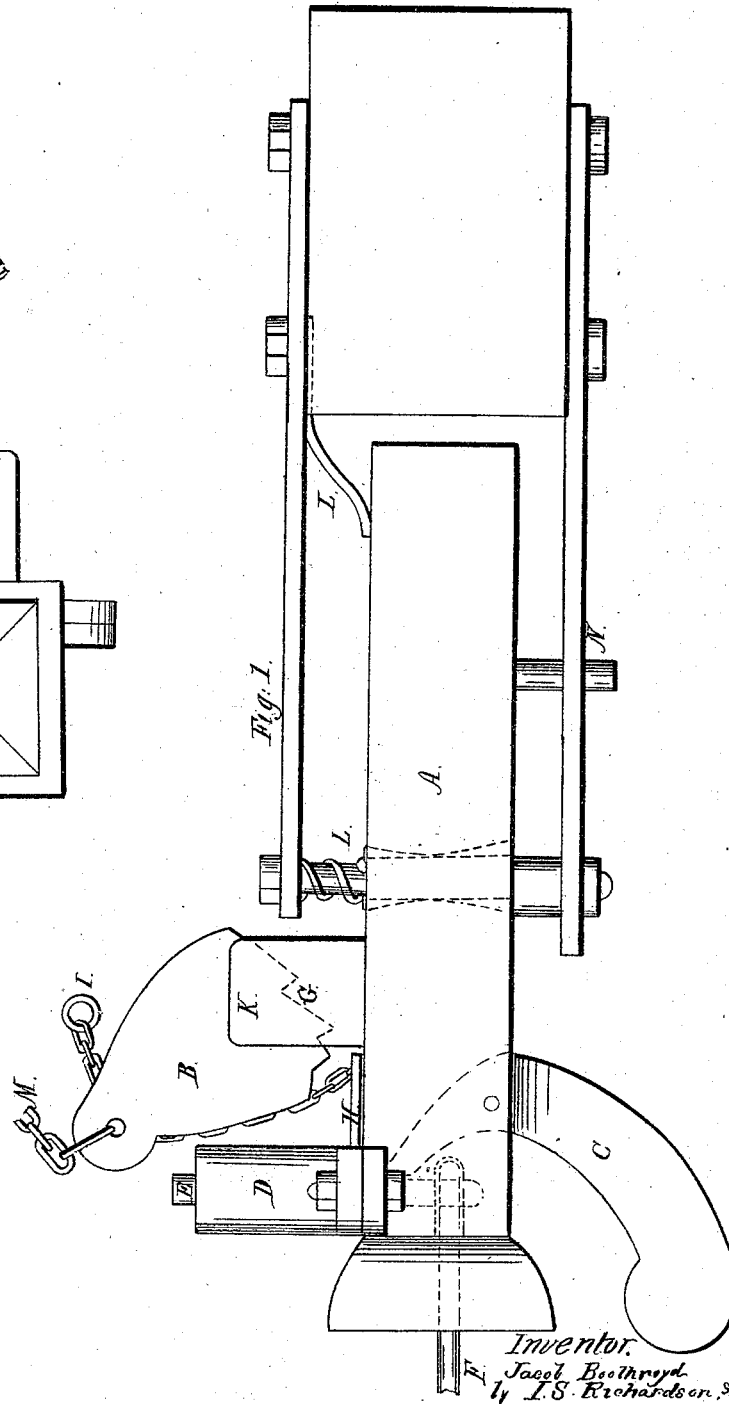
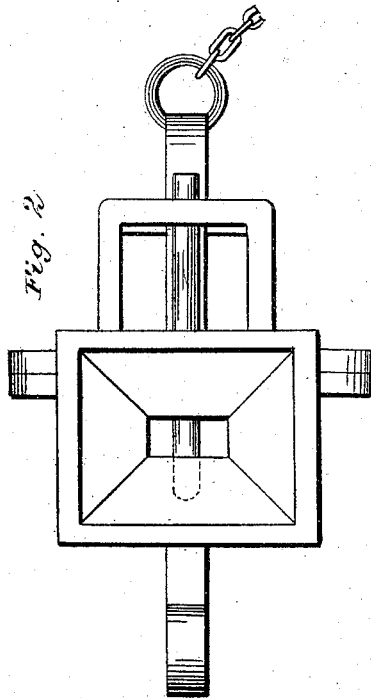


J. BOOTHROYD.

Car Coupling.

No. 111,170.

Patented Jan. 24, 1871.



Witnesses:

A. H. Ellwood
Geo. O. Garway

Inventor.

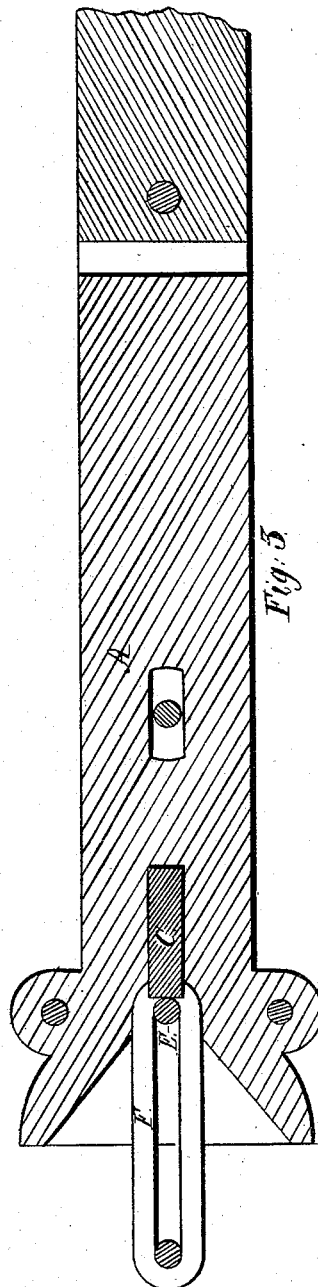
Jacob Boothroyd
by I. S. Richardson, Atty.

J. BOOTHROYD.
Car Coupling.

2 Sheets—Sheets 2.

No. 111,170.

Patented Jan. 24, 1871.



Witnesses:

A. H. Ellwood
Geo. O. Garrison

Inventor:

Jacob Boothroyd

by L. S. Richardson Atty

United States Patent Office.

JOSEPH BOOTHROYD, OF MICHIGAN CITY, INDIANA.

Letters Patent No. 111,170, dated January 24, 1871.

IMPROVEMENT IN CAR-COUPPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

I, JOSEPH BOOTHROYD, of the town of Michigan City, in the county of La Porte and State of Indiana, have invented certain new and useful Improvements in Car-Couplings; of which the following is a full description, reference being had to the accompanying drawing making a part of this specification.

My invention has for its object to provide a car-coupler which will be readily self-coupling and be at the same time easily uncoupled either from the platform or inside of the car, while it cannot be uncoupled by any accident; and

My invention consists in providing the draw-head with a coupling-pin (secured within a proper standard) having an ear or lug attached thereto, to which is coupled a chain passing over a tumbler hung in a suitable frame and operated through the medium of rods or chains and levers from any locality, this tumbler being so constructed that when the coupling-pin is down it cannot be raised except by the action of the tumbler, all as will be hereinafter more fully set forth.

To enable others skilled in the art to make and use the same, I will proceed to describe my invention, referring by letters to the accompanying drawing, in which—

Figure 1 is a side view;

Figure 2, an end view; and

Figure 3, a horizontal section through the plane xy .

Similar letters indicate like parts in the several views.

A is the draw-head or bar, secured within its frame by a bolt at the forward end of said frame.

A coiled or other spring, L, is arranged around said bolt, between the upper face of the draw-bar and the frame.

There is another spring, L, at the rear end of said bar, as shown, for the purpose of allowing said bar the proper movement while the stud N prevents any turning.

The draw-bar is provided with the ordinary flared mouth, and has erected at that point where the pin

is to drop a standard, D, which supports the pin E against lateral movement.

In rear of this standard, at the proper distance, another standard, K, is erected, which supports the tumbler B.

The edge of this tumbler is grooved to receive a chain, I, which has one end connected to an ear or lug, H, attached firmly to the pin E.

The other end is made fast to the back edge of said tumbler, and another operating-chain, M, is secured to top of tumbler and carried to platform or inside of car, the tumbler swinging upon a pivot.

The bottom edge of the tumbler is cut away to form one or more steps or notches, one of which, when the pin is in place, serves as a stop against the upward movement of the lug H and pin.

A gravity-trigger, C, is secured by a pivot in rear of the pin E, at the bottom of draw-bar, and when in its natural position has the bottom edge of its smaller end resting upon the seat made for the link F, and serves as a support to hold up the pin E. When the link is thrust to its place the trigger C is forced back to the position seen in fig. 1, and the pin E drops through said link, while if the pin be withdrawn the trigger will drop upon the end of the link and hold it against displacement ready for recoupling.

Having described the construction and operation of my improved car-coupler,

What I claim as new, and desire to secure by Letters Patent, is—

1. The coupling-pin E, provided with an ear or lug, H, in combination with the chain I and tumbler B, provided with steps or notches, as and for the purposes set forth.

2. The tumbler B, provided at its bottom with a step or notch for holding down the lug and pin, substantially as shown and described.

JOSEPH BOOTHROYD.

Witnesses.

HENRY A. YOUNG,
JOHN D. BOWEN.