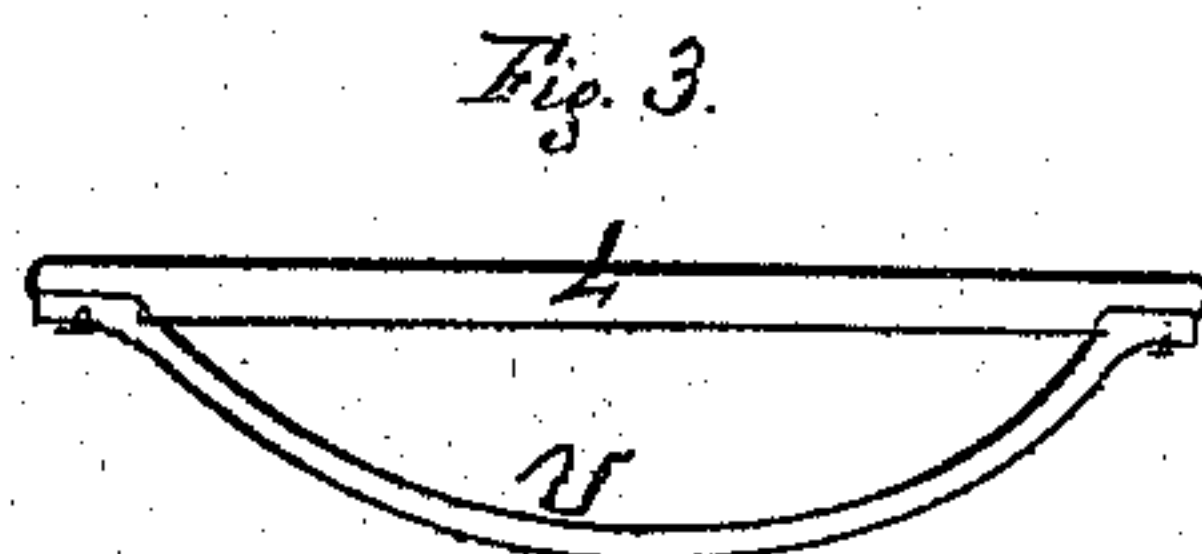
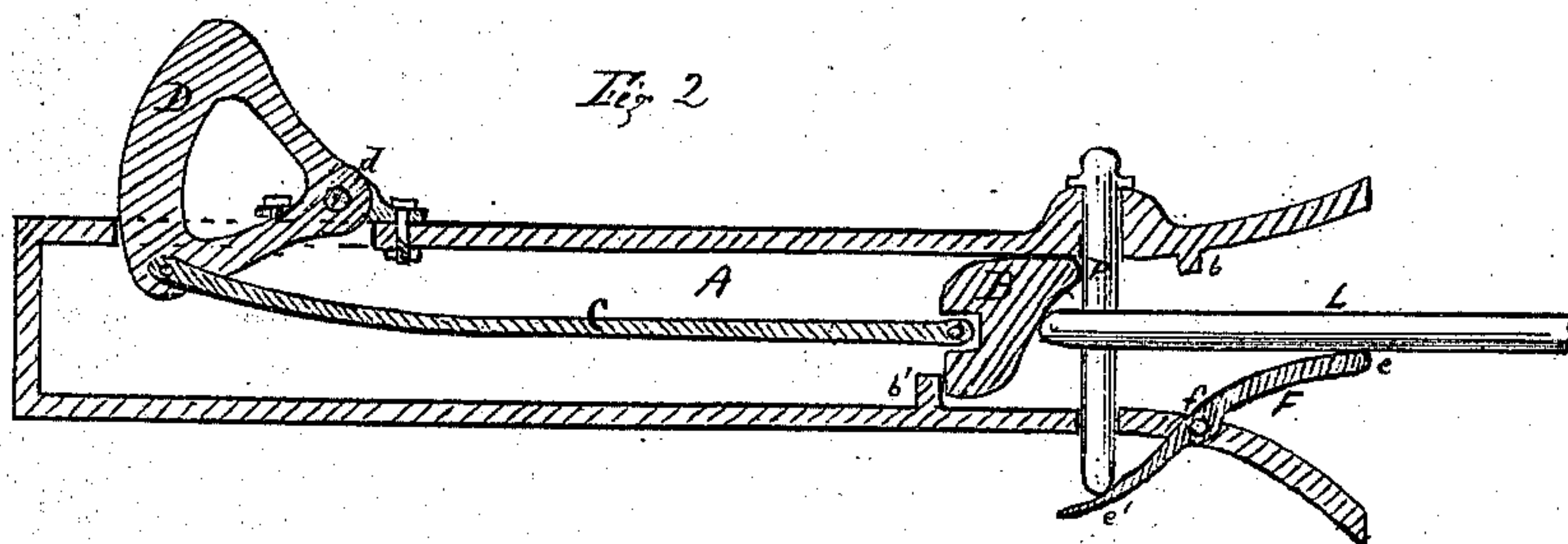
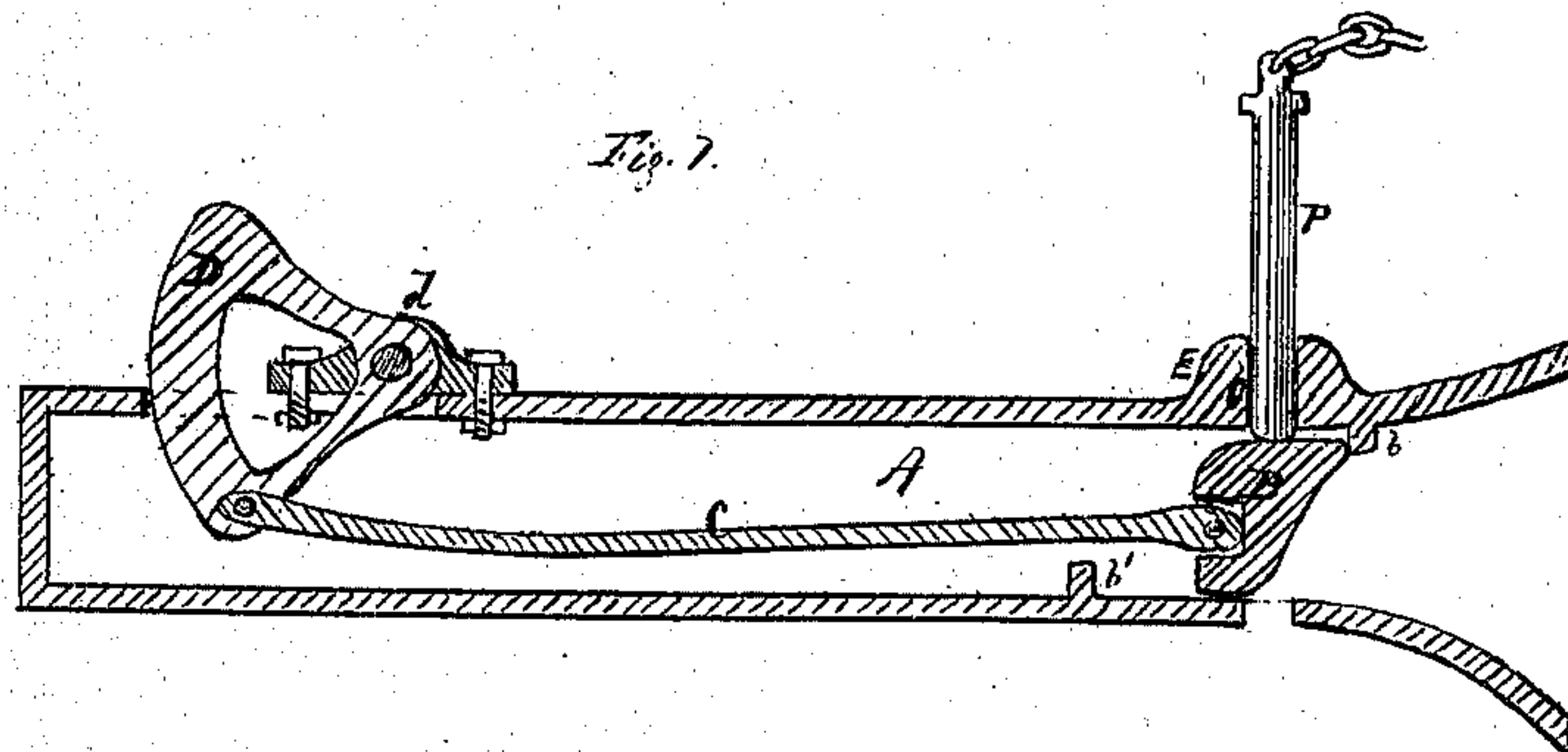


HARDS & HODNETT.

Car Coupling.

No. 106,057.

Patented Aug. 2, 1870.



S B Hark
W. Loane & Co } Inventors

Witnesses: J. B. Turchin

John Mcintosh

United States Patent Office.

JOHN B. HARDS AND WILLIAM HODNETT, OF CHICAGO, ILLINOIS.

Letters Patent No. 106,057, dated August 2, 1870.

IMPROVEMENT IN CAR-COUPLING.

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

To all whom it may concern:

Be it known that we, JOHN B. HARDS and WILLIAM HODNETT, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car Self-Couplers; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use our invention, we will proceed to describe it.

The nature of our invention consists in a sliding head and a segment or weight so connected and affixed in and to the draw-bar of a car that when the car is uncoupled, the coupling-pin rests on the said sliding head, which, by the weight of the said segment, is brought forward, but at the moment of coupling, when the link of the approaching car strikes at the said sliding head, this is pushed backward, thus allowing the coupling-pin to drop and effect the coupling of the cars.

In the accompanying drawing—

Figure 1 represents a longitudinal section of our coupler when the car is uncoupled;

Figure 2 represents a longitudinal section of the coupler when the car is coupled with another car;

Figure 3 represents a side elevation of the improved link; and

Figure 4, the end elevation of the same.

B is a draw-bar.

B is a sliding head, of the shape as represented, and level or slightly rounded on the top and at the bottom, and moving between the stops *b* and *b'*, affixed to the draw-bar.

The head B is connected by a rod or plate, C, with the lower point of the segment D, which is journaled at point *d* to the draw-bar, and moving in a suitable slot made in the said draw-bar.

E is a collar made around the opening O of the

draw-bar, for the purpose of keeping the coupling-pin P in a vertical position when the car is uncoupled.

The operation of the device consists in this, that when the car is uncoupled the pin P stands in vertical position, resting on the top of the sliding head B, but when link L of the other car strikes at the head B, and pushes it backward, the pin P drops down, and the coupling is effected.

To uncouple the cars, the pin P is raised by a man, by means of a lever suitably connected with pin P, and fulcrumed to the side or top of the car. As soon as pin P is sufficiently raised so as to clear the sliding head D, this is pushed forward, by the weight of the segment D, under the pin, and supports the same.

In order to keep the link L always in a horizontal position when the car is not coupled, a lever, F, is affixed to the draw-bar, at the point *f*, on a pivot; it is made heavier at the forward end *e*, and its hind end *e'* is so shaped that when pin P drops down it presses this end *e'* and raises the end *e* against link L, thus supporting it and keeping it horizontal; but when the car is uncoupled and the pin P raised, the front end *e* of the lever drops down into a suitable crease or groove made for it in the draw-bar.

We attain the same object, viz., the keeping of the link in a horizontal position, also, by providing the said link L on one side with braces *l l*, said braces so shaped as to fit the interior curvatures of the draw-bars, the side, provided with braces, being used as the under side of the said link.

Having thus fully described our invention,

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

The draw-head A, provided with the stops *b* and *b'*, and having the sliding head B and segment D connected by a rod, C, arranged therein as herein described.

JOHN B. HARDS.

WILLIAM HODNETT.

Witnesses:

J. B. TURCHIN,

ALBERT GRAFIELD.