

J. HARDEY.
Car-Couplings.

No. 158,705.

Patented Jan. 12, 1875.

Fig. 1.

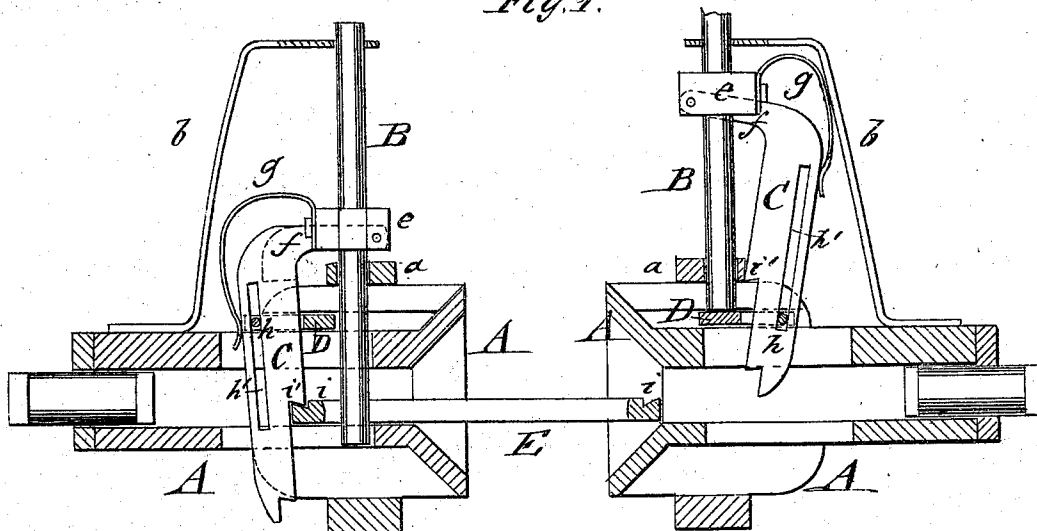
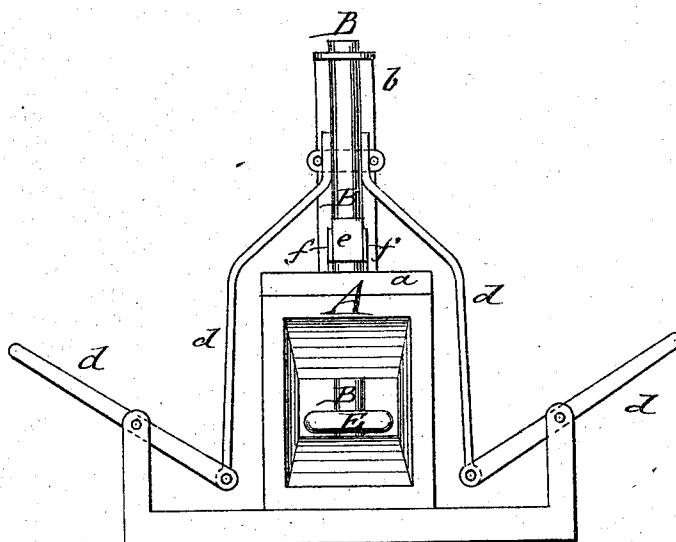


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN HARDEY, OF EAST SAGINAW, MICHIGAN.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **158,705**, dated January 12, 1875; application filed July 25, 1874.

To all whom it may concern:

Be it known that I, JOHN HARDEY, of East Saginaw, in the county of Saginaw and State of Michigan, have invented a new and Improved Car-Coupling, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of my improved car-coupling in coupled and in uncoupled position, and Fig. 2 is a front view of the same.

Similar letters of reference indicate corresponding parts.

My invention relates to an automatic car-coupling; and consists of a draw-head which is provided with a suitably-guided coupling-pin, supported in raised position ready for coupling on a sliding plate operated by a slotted elbow-lever, which is pivoted sidewise at suitable height to the coupling-pin, and acted upon by a suitable band-spring. The action of the link on the pivoted elbow drops the pin and couples the link, whose horizontal position for coupling is produced by end notches and shoulders of the elbow-lever bearing thereon.

In the drawing, A represents the draw-head, which is applied to the car in any approved manner. The coupling-pin B slides in a perforated lateral bridge or top piece, *a*, of draw-head A, and in suitable guides *b*, attached to the draw-head and at the top of the car, for being raised for uncoupling, either by a handle at the upper end or by pivoted levers *d* at both sides of the draw-head. An enlarged stop, *e*, of pin B defines the extent of downward motion of the pin, the elbow-bands *f* of a lever, C, being pivoted sidewise to the same, so that lever C may readily swing in the longitudinal top and bottom recesses of the draw-head, and be raised and lowered with the coupling-pin B. A band-spring, *g*, is attached to

the pin-stop *e*, and applied to the rear of lever C, for forcing the same constantly in forward direction. A horizontal plate, D, slides in suitable top grooves of the draw-head, and is carried in forward or backward direction by the action of lever C on its lateral rear guide-pin *h*, which moves in a slot, *h'*, extending nearly through the entire length of lever C.

When the coupling-pin is raised above the sliding plate D, the pressure of band-spring *g* forces lever C and plate D forward, and retains the pin in raised position.

The coupling-link E enters the draw-head in the usual manner, and strikes the lower end of lever C, carrying the lever, and thereby the sliding plate, back, and dropping then instantly the pin for coupling.

The coupling-link E is provided with dovetail notches *i* at both ends, for the purpose of being held in horizontal position for coupling by a corresponding front shoulder, *i'*, of lever C, which is placed thereon and released by the concussion of the cars after the coupling of the same is accomplished.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The draw-head A, coupling-pin B, pivoted elbow-lever C, carried by said pin and having a vertical slot, *h'*, and spring *g*, to operate with the pin-supporting plate D, pin *h*, and coupling-link E, all combined as and for the purpose herein set forth.

2. The coupling-link E, having end notches *i*, in combination with projecting front shoulder *i'* of lever C, for holding link in horizontal position for coupling with adjoining draw-head, as set forth.

JOHN HARDEY.

Witnesses:

CYRUS HILLER,
WILLIAM G. LAUGHTON.