(No Model.)

J. C. BROOKS.

Car Coupling.

No. 229,950. Patented July 13, 1880.

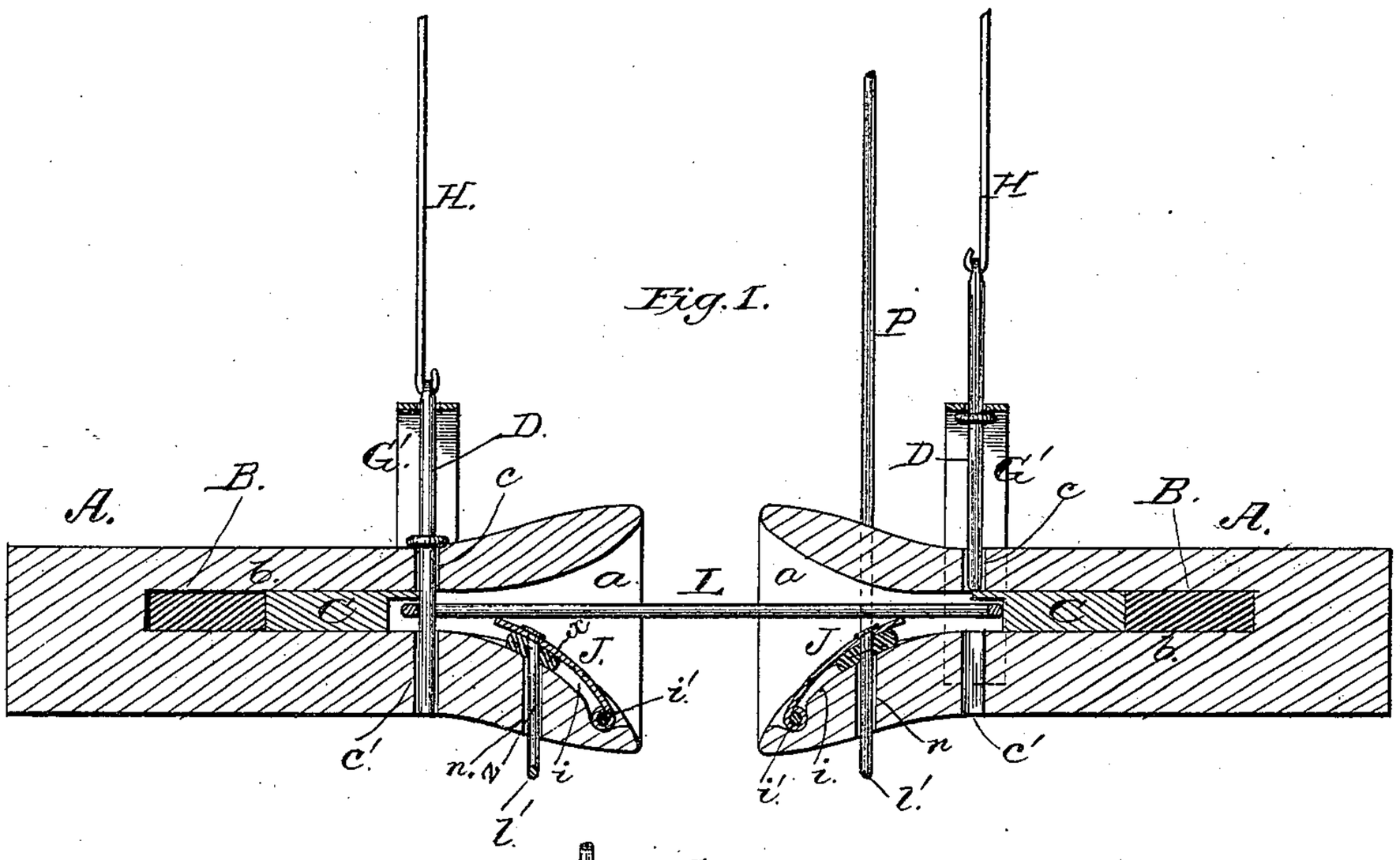

Fig. 1.

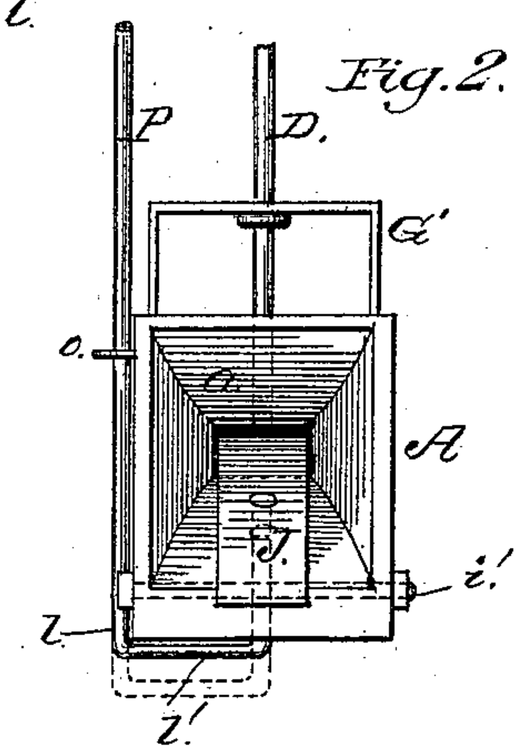

Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN C. BROOKS, OF MASON CITY, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 229,950, dated July 13, 1880.

Application filed May 15, 1880. (No model.)

To all whom it may concern:

Be it known that I, J. C. BROOKS, of Mason City, in the county of Mason and State of Illinois, have invented a new and valuable Improvement in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of my improved draw-bars, showing them in the act of coupling, and Fig. 2 is a front view of one of said draw-bars.

This invention has relation to improvements in automatic car-couplings; and the object of the invention in this class of couplings is to devise means for raising the link so that it will enter the draw-bar of a higher car without passing between the cars, and to improve said couplings generally.

The nature of the invention will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates a draw-bar not differing in outline from that of an ordinary pin-and-link coupler, and having at its front end the usual flaring chamber *a*, merging into a rectangular recess, *b*, at its rear end. The recess *b* extends back into the draw-bar a considerable distance and receives a rubber block or other spring, B.

C indicates a preferably metallic block arranged in the recess *b* in front of the spring B, and projecting past the coupling-pin holes *c c'* in the top and bottom walls of the draw-bar, so that the pin D, when engaged in the hole *c*, is prevented from dropping through the chamber into the perforation *c'* until the impact of the link L on the front end of block C forces the said block back into the recess *b*, owing to the yielding of spring B sufficiently to clear the said holes. The pin D then falls through the link L, which projects from the draw-bar of a car approaching to be coupled, into engagement with the hole *c'*, and effects a reliable coupling.

The pin D extends up through a metallic guide or support, G', erected on the draw-bar and bridging the same. This guide is of the form of an inverted letter **U**, and serves to direct the lower end of the pin D accurately to its engagement with the hole *c'*.

H indicates a metallic rod secured to the upper end of pin D and reaching up to the top of the car, from which point it may be manipulated by hand or lever power to raise the pin and release the link, or it may be connected to a vertically-vibrating lever reaching out to the side of the car.

In the bottom wall of the chamber *a* is a metallic plate, nearly as wide as the recess *b*, and secured in the recess *i*, formed in said wall, by means of a pin, *i'*.

The plate J extends inward a considerable distance, and vibrates vertically upon its rod or pin *i'*. As shown in Fig. 1, it terminates at its inner end considerably short of the holes *c' c*, and consequently, when its free end is raised, it raises the projecting outer end of the link, which thus is readily adjusted to enter a chambered draw-bar of greater height from the ground. This is accomplished from the top of the car by means of a pull-rod, P, extending through suitable guides *o* under the draw-bar, as shown at *l*, thence horizontally half-way across the same, as indicated at *l'*, thence upward, by means of a vertical arm, *z*, through a perforation, *n*, in the bottom wall of chamber *a*, and a rubber spring, *x*, between said wall and plate, and secured to the latter. By drawing upward on the rod P the lifting-plate J is necessarily raised, and as its free end bears against the link in front of the coupling-pin the free end of said link is also thrown up, a very small movement of the rod causing a material lifting of the link.

The spring *x*, aforesaid, serves to soften the shock of the contact of the projecting end of the link with the lifting-plate of a draw-bar of a car approaching to be coupled and prevents it from being battered out of form or torn loose from its pivot-pin.

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

The combination, with the draw-bar A, pin D, and link L, of the lifting-plate J, recessed into the lower wall of the chamber of the draw-bar, pivoted by its front end in said

chamber and extending back into the same, and the pull-rod P, extending below, under, and upward by its arm *z* through the bottom of the draw-bar and through a rubber spring, *x*, and secured to said plate, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN CLARK BROOKS.

Witnesses:
J. H. FAITH,
G. W. YOST.