(No Model.)

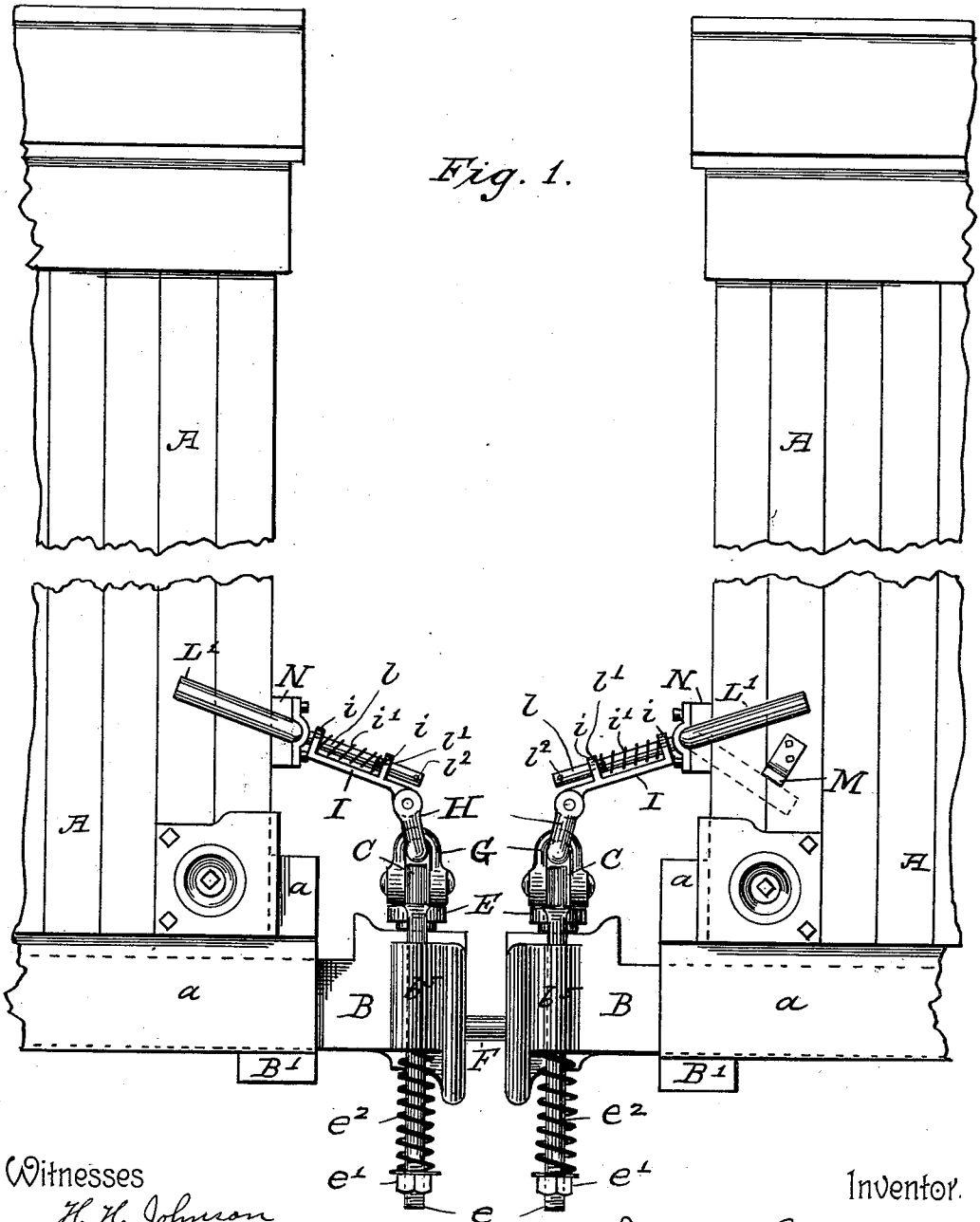
2 Sheets—Sheet 1.

J. H. QUIMBY.

CAR COUPLING.

No. 508,239. Patented Nov. 7, 1893.

Fig. 1.



Witnesses
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(No Model.)

2 Sheets—Sheet 2.

J. H. QUIMBY.

CAR COUPLING.

No. 508,239. Patented Nov. 7, 1893.

Fig. 2.

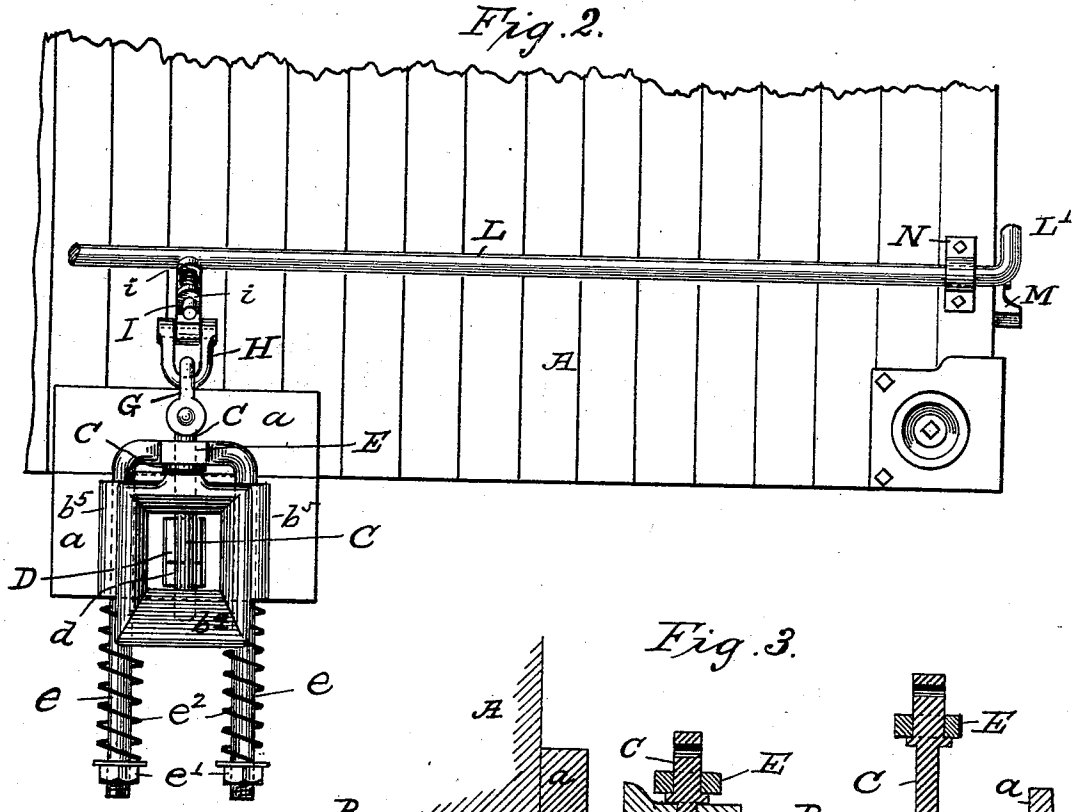


Fig. 3.

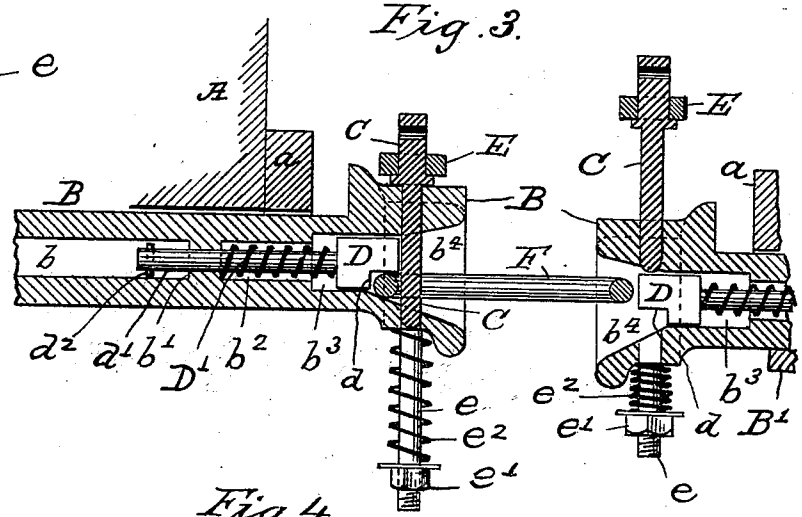
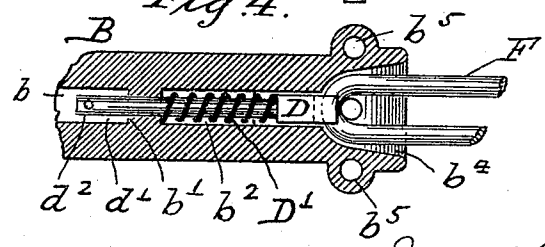


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN H. QUIMBY, OF CONCORD, NEW HAMPSHIRE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 508,239, dated November 7, 1893.

Application filed May 24, 1893. Serial No. 475,316. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. QUIMBY, a citizen of the United States, residing at Concord, in the county of Merrimac and State of New Hampshire, have invented certain new and useful Improvements in Car-Couplings; and I do hereby 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 appertains to make and use the same.

This invention relates to link and pin couplings, the objects of the invention being to provide simple, and inexpensive mechanical means for holding the link and pin in a position to couple to an adjacent car automatically, and means also for adjusting said links and pins so that cars may be thrown together when desired without coupling together or becoming attached one to the other.

The invention will be fully set forth in the following specification and claim, and clearly illustrated in the accompanying drawings forming a part thereof, of which—

Figure 1, is a broken elevation showing the two adjacent ends of two cars, as when connected by my improved automatic link and pin couplers. Fig. 2, is a broken end view of a car showing my improved coupling having the link removed. Fig. 3. represents two of my improved couplers in longitudinal sectional elevation while in the act of coupling. Fig. 4, is a sectional plan of my improved coupler showing a portion of a link in position therein.

Similar letters of reference denote corresponding parts throughout the various views.

A—*a*, represent portions of a freight car.

B, is my improved draw-bar or coupling, C, the coupling pin, D, the coupling pin adjusting block, E, the spring actuated coupling pin supporting yoke; and F, the coupling link.

The draw-bar B, is supported near its outer end by a suitable plate or bar B′, as seen, and at its rear it is mounted in the usual manner upon a spring bar. The cored portion *b*, of the draw-bar, which receives the ordinary bar for supporting the rear end of the same, extends forward as far as the stop *b′*, and beyond said stop the bar B, is again cored as at b^2, terminating in the rectangular opening b^3, which opens into the throat or link orifice b^4, of the said bar B. The stop *b′* is perforated for the reception of a rod *d′*, whose forward end enters the block D, and upon which between said block and said stop *b′*, is mounted a helical spring D′, for holding said block normally out to support the pin C, in the elevated position seen in Fig. 3. The rear end of the rod *d′* will be provided with a key or pin d^2, which will limit the outward movement of said rod by contact with the stop *b′*.

The coupling pin supporting yoke E, terminates in long rods *e*, which pass, one at each side of the bar B, through perforated ears b^5. The ends of the rod *e*, are threaded to nuts *e′*, between which and the lower face of said draw-bar are mounted helical springs e^2, which retain the yoke E, and the pin C, normally in the position shown in Figs. 1, and 2.

The lower front edge of the block D, is cut away forming the notch *d*, which will sustain a link F, in a horizontal position, as seen in Figs. 1, 3, and 4, and by raising the pin C and yoke E, of a coupler containing no link, as seen in Fig. 3, the block D, is forced out under the pin C, which is thus held until the contact of the link F, of an approaching draw bar B, forces the said block back, when the coupling pin C, accelerated by the spring actuated yoke E, enters the link F, before the said draw-bar shall have time to recede or rebound.

The coupling pin C, may be "set" or operated by means of a rod mounted upon the end of a car A, having a right-angled arm at each end and one at its center which is connected with said pin C.

In the drawings I show the coupling pin C, connected to the actuating bar L, by means of the links G, H, and an automatic adjustable bar I, which is mounted by means of ears *i*, upon the central arm *l*, of the actuating bar L. Said arm *l*, has two stop pins *l′* and l^2,—the former being placed between the ears *i*, and near the outer one, while the latter is located in its end, to prevent the separation of the bar I and the arm *l*. A helical spring *i′*, is mounted upon the arm *l*, operating expansively between the pin *l′*, and that ear *i*, which is farthest from it, its function being to retain the relative positions of the bar L and arm I, as seen in Fig. 1, as their normal one, and to permit the necessary adjustment

when the draw-bars are under a more severe strain than usual. The rod L, is mounted in the bearings N, and may be operated from either side of the car by the arms L'.

At one side of a car A, a stop block M, is bolted at a point to engage with an arm L, in the following manner: When it is desired to hold the coupling pin elevated, after seeing that the arm L, is below the block M, said arm L, is pushed toward the car, when the said block will prevent its rising to its normal position as seen in Fig. 1, when the block is shown in full lines and the arm in dotted lines as when engaged with it.

Having described my invention, what I claim is—

In a car coupler, the combination, with a draw bar, of a vertically movable frame mounted thereon, an actuating bar mounted on the end of the car, the ends of which are provided with means for rocking it and the central portion is provided with an arm, a spring actuated frame upon the arm, stops for limiting the movement of the frame, and a link for connecting the frame with the vertically movable frame, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. QUIMBY.

Witnesses:
J. B. THURSTON,
NATHL. E. MARTIN.