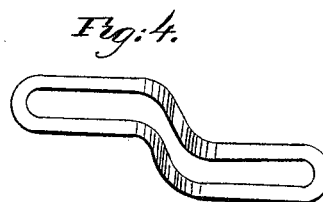
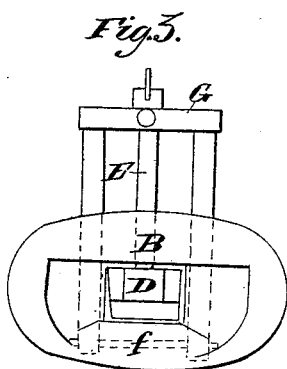
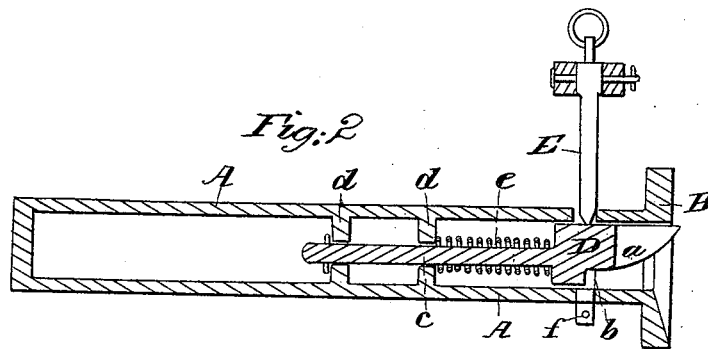
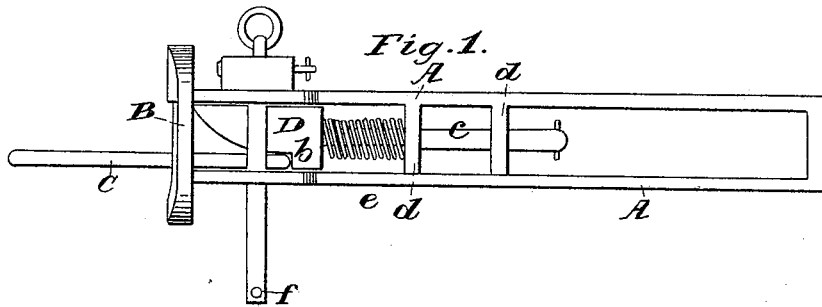


W. D. HATCH.

Car Coupling.

No. 6,754.

Patented Oct. 2, 1849.



UNITED STATES PATENT OFFICE.

WARREN D. HATCH, OF WORCESTER, MASSACHUSETTS.

COUPLING FOR CARS.

Specification of Letters Patent No. 6,754, dated October 2, 1849.

To all whom it may concern:

Be it known that I, WARREN D. HATCH, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Car-Couplings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a side view of my self-acting car-coupling with the coupling-link inserted; Fig. 2 is a longitudinal section with the coupling-pin in elevation; Fig. 3 is an end view; and Fig. 4 a perspective view of a bent link for connecting cars of unequal height.

The nature of my invention consists in a spring tongue which, when the coupling link is withdrawn, prevents a guided coupling-pin from entering the space in which the coupling-link is to be inserted; and which when the latter is introduced, gives before it and allows the pin to enter and secure the link.

In the drawing A is the frame of the coupling, which may be connected in the usual manner with springs to diminish the jar of starting and stopping; the bumper (B) on the end of the frame has a flaring mouth to receive the coupling-link (C); within this mouth slides the tongue (D) which is forked for about half its length (at *a*) to allow the coupling-pin (E) to pass through it; this tongue is also curved downward and inward to guide the entering link against a shoulder (*h*) on the lower side of the tongue, and to hold it in a horizontal position. The tongue is secured to the end of a spindle or stem (*c*) which is guided by passing it through holes in the cross bars (*d d*) of the frame. A helical spring (*e*) is coiled upon the stem (*c*) to press the tongue forward.

The coupling pin (E) is attached to a guide gate composed of two parallel vertical rods sliding in holes made in the top and bottom of the frame (A) on each side of the tongue (D); these rods are connected at their upper extremities by a cross bar (G) through the middle of which the coupling-pin (E) passes, and to which it is secured by a bolt passing horizontally

through the two; the lower extremities of the rods are also connected beneath the frame (A) by a horizontal bar (*f*) which both strengthens the gate, and by striking the bottom of the frame (A) limits the height to which the coupling-pin (E) can be raised; for greater convenience a ring is attached to the upper extremity of the coupling-pin to which the hand can be applied to raise it; when raised, the tongue by the action of the helical spring (*e*) is projected forward through the mouth of the bumper, and passing beneath the lower extremity of the coupling-pin prevents it from descending.

When the coupling-link is inserted, the tongue (D) yields to the link pressing against the shoulder (*h*), and the coupling-pin being released descends through the link, and a hole in the bottom of the frame (A), thus preventing the withdrawal of the link, until the pin is raised.

By the action of the guide gate the coupling-pin is always held in the proper position for coupling (as represented in Fig. 2) when the cars are disconnected from the link, and is guided vertically downward through the hole in the bottom of the frame; the gate also attaches the pin to the car and prevents it from being misplaced or lost; the flaring tongue acts as a guide for the entering link, and holds it always in its proper horizontal position to engage with the coupling of the car to be attached to it. The whole arrangement being self acting not only prevents the loss of time which results from coupling cars by hand, but by dispensing with the handling of the link and pin while the cars are being shoved together, prevents the accidents which daily occur, and the bruising and crushing of the men employed.

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

The combination of a spring tongue (D) with the self acting guided coupling pin (E) arranged substantially in the manner and for the purpose herein set forth.

WARREN D. HATCH.

Witnesses:

WM. SUMNER BARTON,
A. B. WHIPPLE,
AUGUSTUS MARRS.