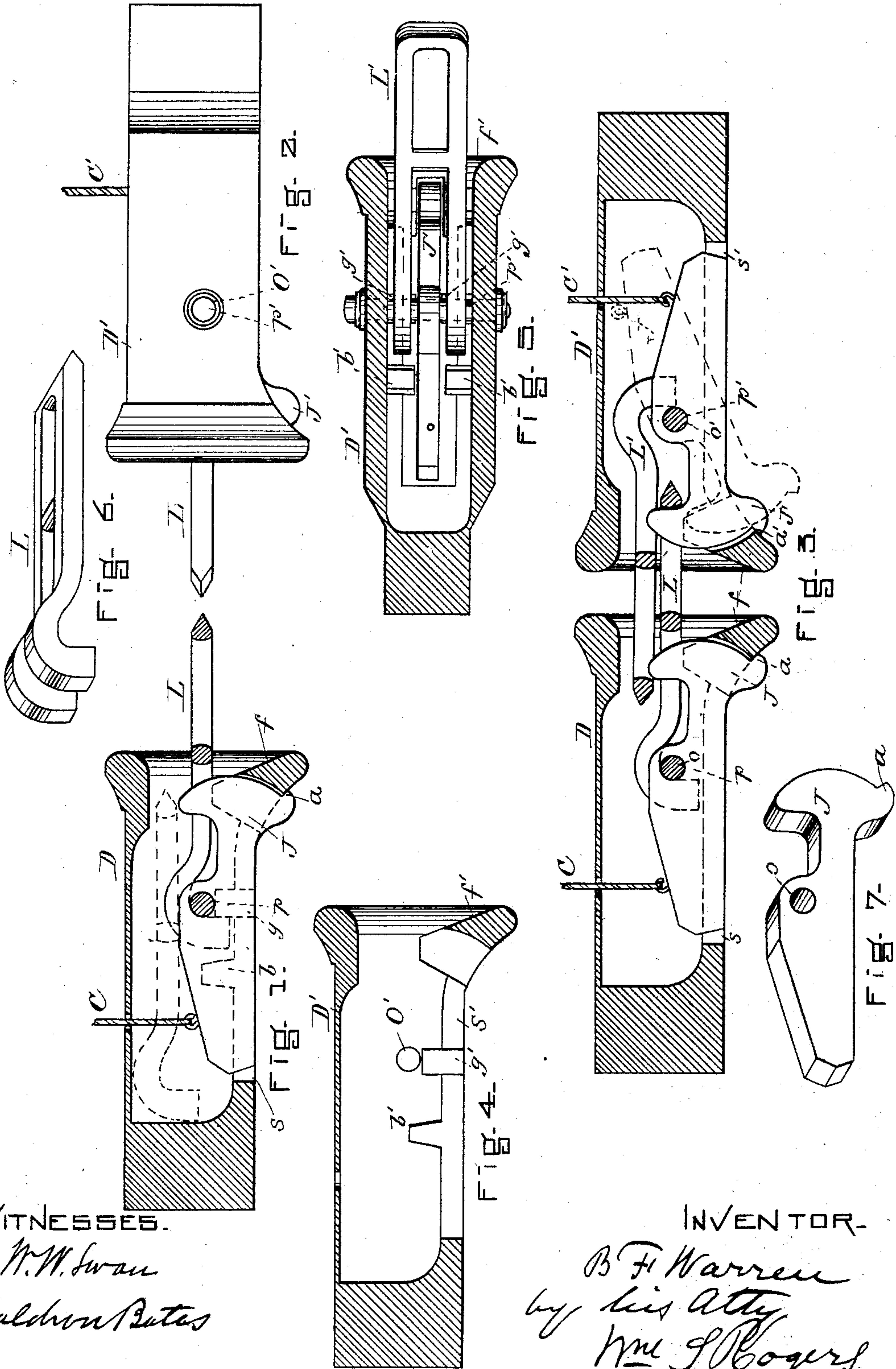


(No Model.)

B. F. WARREN.
CAR COUPLING.

No. 363,783.

Patented May 24, 1887.



WITNESSES.

W. W. Swan
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UNITED STATES PATENT OFFICE.

BENJAMIN F. WARREN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 363,783, dated May 24, 1887.

Application filed November 20, 1886. Serial No. 219,431. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. WARREN, of Boston, Massachusetts, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My improvement relates to the class of couplings in which the draw-head is provided with a hooked jaw and link permanently mounted therein; and my invention consists in so constructing the parts that the link will not be permanently displaced when the coupling is used in connection with another car provided with a similar coupling, so that when the cars are uncoupled again my link requires no manipulation to make it ready to couple with another car; and, further, in confining the operative parts to a space wholly within the draw-head at the part where it is desirable that there should be no projection, and in simplifying the construction of the parts.

In the drawings, Figure 1 is a vertical section of a draw-head embodying my invention. Fig. 2 is an elevation of a similar draw-head. Fig. 3 is a vertical section of the two draw-heads. Fig. 4 is a vertical section of Fig. 2, the link and hooked jaw being removed. Fig. 5 is a horizontal section of Fig. 2. Figs. 6 and 7 are details of construction.

D and D' are draw-heads containing hooked jaw J and link L. In connecting the parts link L is inserted into the draw-head from the front, and jaw J is introduced from the bottom of the draw-head through slot *s* to the positions shown in Fig. 1, when the bar or pivot-pin *p* is driven through hole O in the draw-head and hole *o* in the jaw J. The rear end of the link is so formed, as shown, that it will catch over and beyond the pin *p*, so as to prevent its removal from the draw-head, as well as the removal of the jaw J, except by withdrawing the pin.

g g are projections or guides on the inside of the draw-head, whose function is to limit the side-play of the jaw J.

b b are blocks or stops, one on each side of the draw-head, to prevent the link from being driven back into the draw-head in coupling with another car having a similar draw-head and coupling. The front face of these blocks *b b* is beveled, as shown, so that if the

link accidentally receives a hard blow it will be driven back, sliding up over said beveled face into the body of the draw-head, as indicated in broken lines in Fig. 1, to prevent injury to the link; but these blocks will afford sufficient resistance to prevent backward movement of the link when it itself couples with the opposite car.

In operation whichever link is undermost as the cars come together will, in passing into the opposite draw-head, depress the jaw J' of that draw-head, as indicated in broken lines in Fig. 3, until it gets by the hook of the jaw, when the latter will return to place by gravity. Slipping off the hook of the jaw after coupling is prevented by the presence of the idle-link between the hook of the jaw and the top of the draw-head.

The front of the draw-head has the beveled surface *f* to guide the operative link into the draw-head if it should strike below the jaw.

To uncouple the cars, the hook of the jaw J' is depressed by raising its rear end by means of chain C'. The front end or hook of the jaw J is prevented from rising too high in the draw-head by projection *a*.

Throughout the drawings corresponding parts of the two couplings shown are marked with similar letters and primes.

I claim—

1. In a draw-head, a link and hooked jaw permanently mounted therein, said link normally projecting from said draw-head, arranged as described, whereby the entering link of the car to be coupled therewith will slide under said link, depressing said hooked jaw until it has passed into place beyond the hook of said jaw, substantially as described.

2. A draw-head having a hooked jaw and link permanently mounted therein, provided with a stop or stops having an inclined face to hold the link in place when coupling, but also to permit it to pass by the hook, without displacing it, into the draw-head when struck a hard blow, substantially as described.

BENJ. F. WARREN.

Witnesses:

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