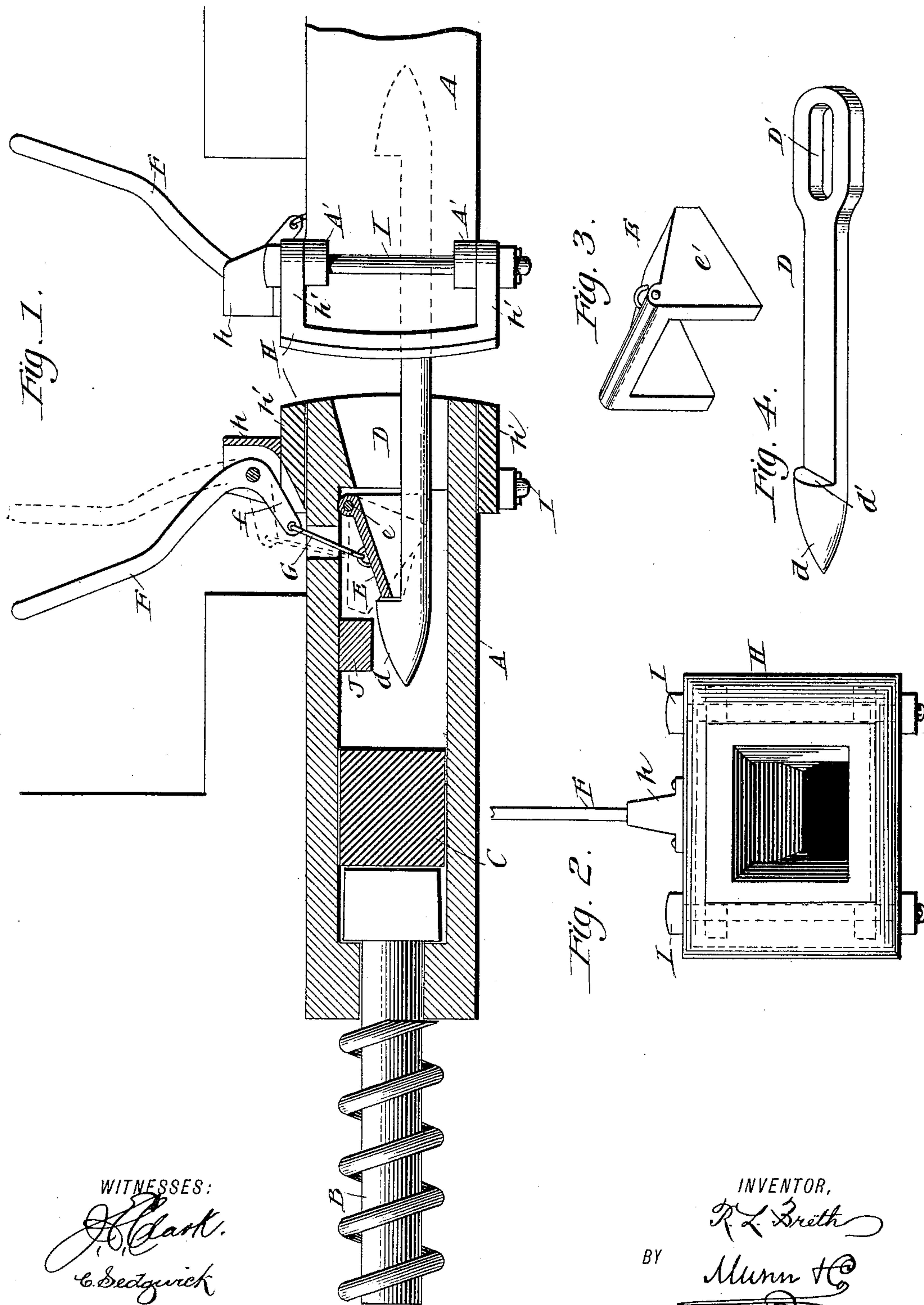


(No Model.)

R. L. BRETH.  
CAR COUPLING.

No. 403,640.

Patented May 21, 1889.



WITNESSES:

*H. Clark.*  
*C. Sedgwick*

INVENTOR,

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BY

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# UNITED STATES PATENT OFFICE.

ROBERT L. BRETH, OF NEW WASHINGTON, PENNSYLVANIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 403,640, dated May 21, 1889.

Application filed March 6, 1889. Serial No. 302,055. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT L. BRETH, of New Washington, in the county of Clearfield and State of Pennsylvania, have invented a  
5 new and Improved Car-Coupling, of which the following is a clear, full, and exact description.

The object of the invention is to furnish a strong and durable self-coupler that will automatically couple the cars, and which may  
10 be applied to cars now in use at but a slight expense.

To these and other ends the invention consists in the novel construction and combination of parts, as hereinafter described and  
15 claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate  
20 corresponding parts in all the figures.

Figure 1 represents two opposing car-couplings embodying my invention, the one being in vertical longitudinal section and the other in side elevation. Fig. 2 is a front view of  
25 one of my improved couplers. Fig. 3 is a perspective view of the coupling-gate, and Fig. 4 is a perspective view of one form of coupling-hook.

A in the drawings represents a draw-head, which may be of any approved construction, B being the draw-bar thereof. Within the draw-head is fitted a rubber buffer, C, to receive the thrust of the coupling-hook D of my improved coupler, said hook being formed  
30 with a head, *d*, forming a shoulder, *d'*. Within the draw-head, at the front end thereof, is pivoted a coupling-gate, E, on a horizontal pivot, *e*, to swing vertically, said gate being a gravitating one, to normally close the entrance to the draw-head A, and as the coupling hook D enters the latter its head *d* forces upward the gate E, which, when the head *d* has moved inward sufficiently, drops behind the same and engages the shoulder *d'*, preventing the withdrawal of the said hook. Above  
40 the draw-head is pivoted an elbow-lever, F, to whose short arm *f* is connected by a link, G, the gravitating coupling-gate E, whereby the latter may be raised when it is desired to  
45 uncouple the cars.

Instead of pivoting the lever F directly to the draw-head, I prefer to pivot it in the bracket *h*, that is formed upon or secured to a frame, H, of rectangular form, adapted to be  
50 slipped over a draw-head to form a buffer,

and provided with rearwardly-extending flanges *h' h'*, the said frame being secured to the draw-head in any suitable manner—as, for instance, by bolts I, which are passed through the flanges *h'* and through lugs or  
60 ears A', or other fixed part of draw-head A.

The coupling-gate E is formed with downwardly-extending side flanges, *e'*, for giving strength to the gate and guiding the coupling-hook.  
65

The coupling-hook D may be formed with a slot, D', as in Fig. 4, if desired, for receiving the coupling-pin of an ordinary link-and-pin coupling, whereby a car having the said old form of coupling may be coupled to one provided with my improved automatic coupling.  
70

The coupling, it will be seen, may be applied to ordinarily-constructed draw-heads at but little extra expense. Being a positively-acting self-coupler, the necessity for the train-  
75 hands entering between the cars is obviated.

A stop-block, J, is secured to or formed upon the draw-head at the rear of the gate E, against which block the head of the coupling-hook will strike should it be accidentally  
80 lifted by the said gate in uncoupling the cars.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—  
85

1. The combination, in a car-coupling, of a coupling-gate and a detachable frame adapted to be placed over a draw-head and carrying an operating-lever for lifting said gate, substantially as described.  
90

2. The combination, with the draw-head, of a rubber buffer fitted therein, a coupling-gate also within the draw-head, a coupling-hook, and a lifting-lever for said gate, substantially as described.  
95

3. In a car-coupling, the following elements in combination, viz: a draw-head, A, provided with rubber buffer C therein, the coupling-gate E, formed with side flanges, *e'*, and pivoted within the draw-head by pivot-pin *e*, a detachable frame, H, formed with flanges *h'* and bracket *h*, the lever F, pivoted in said bracket and connected with gate E by a link, G, and the bolts I, securing the frame H to the draw-head by passing through the flanges  
100 *h'* and lugs A', substantially as described.  
105

ROBERT L. BRETH.

Witnesses:

D. ST. GEORGE FRASER,  
AMBROSE BRETH.