

(No Model.)

L. LONG.
CAR COUPLING.

No. 258,086.

Patented May 16, 1882.

Fig. 1.

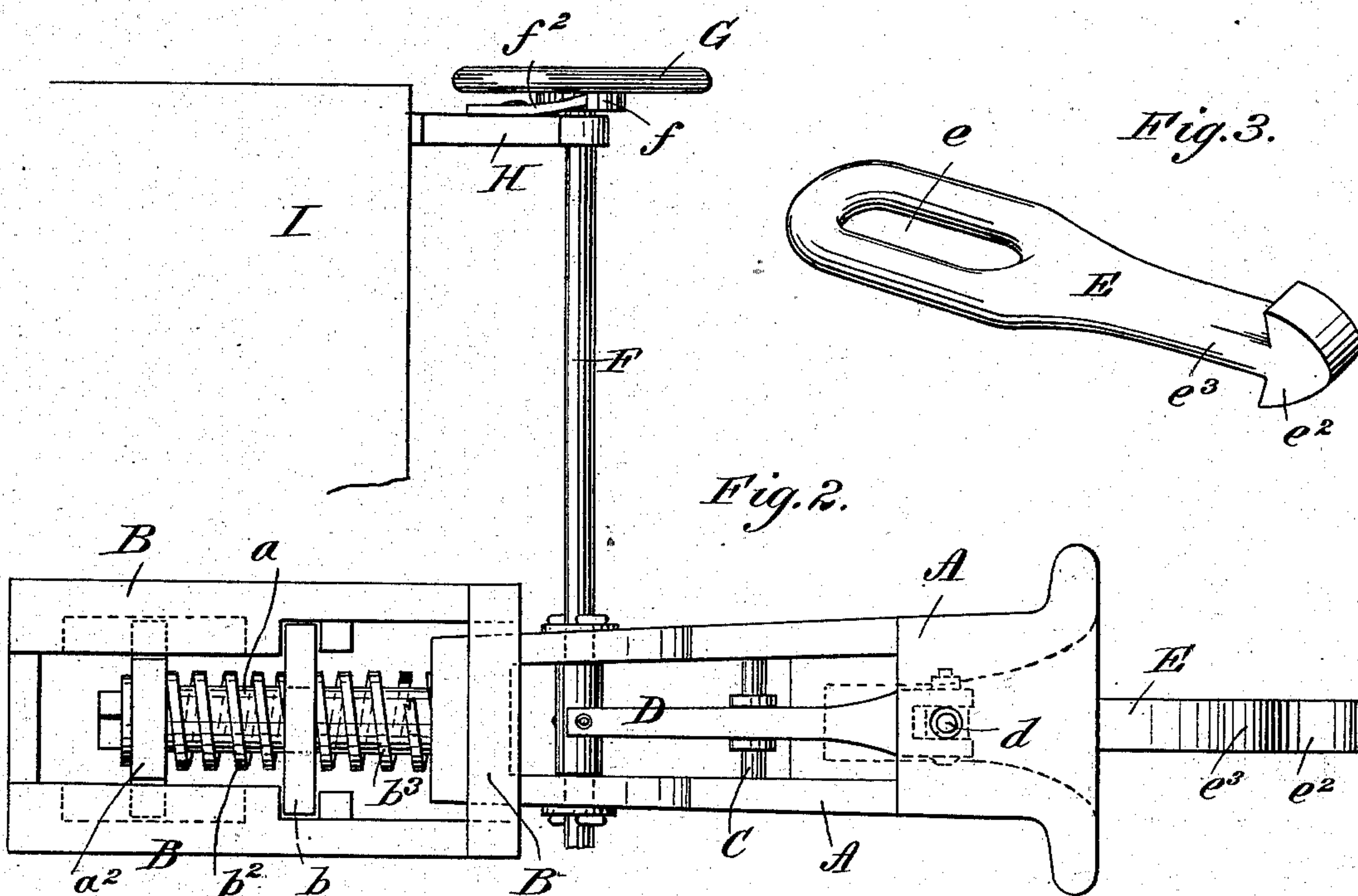
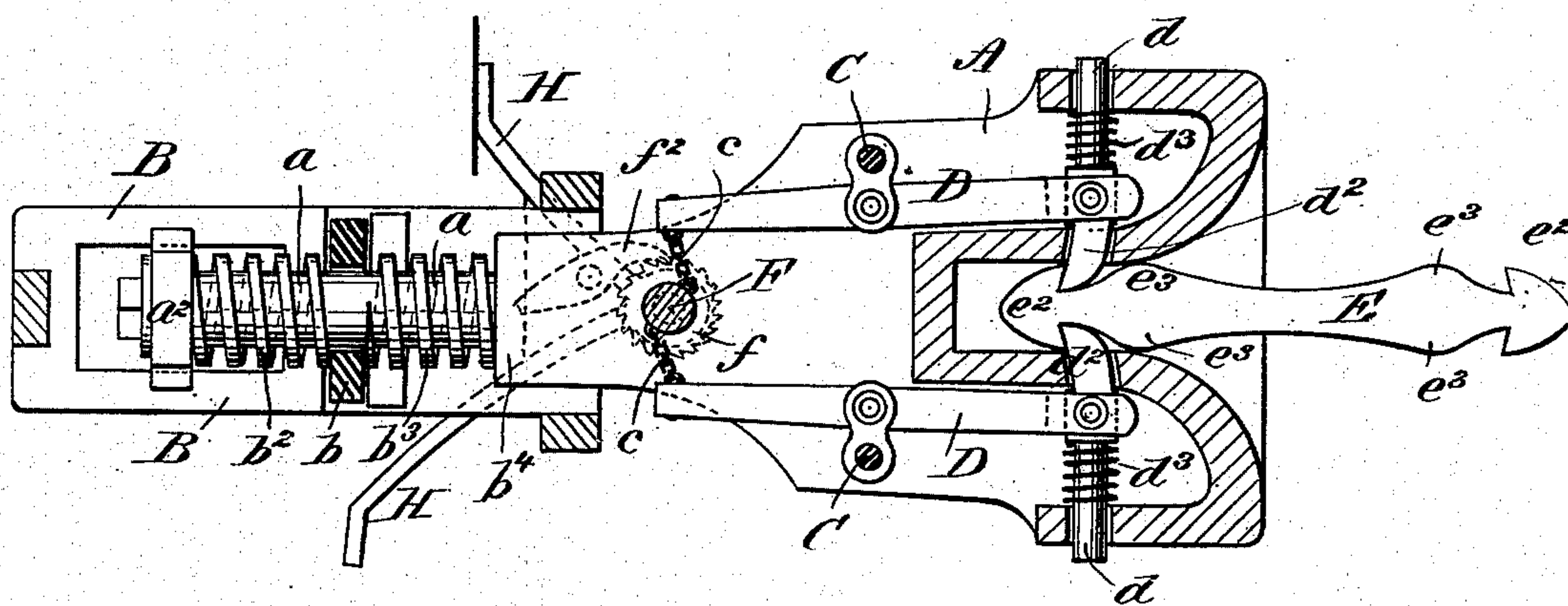
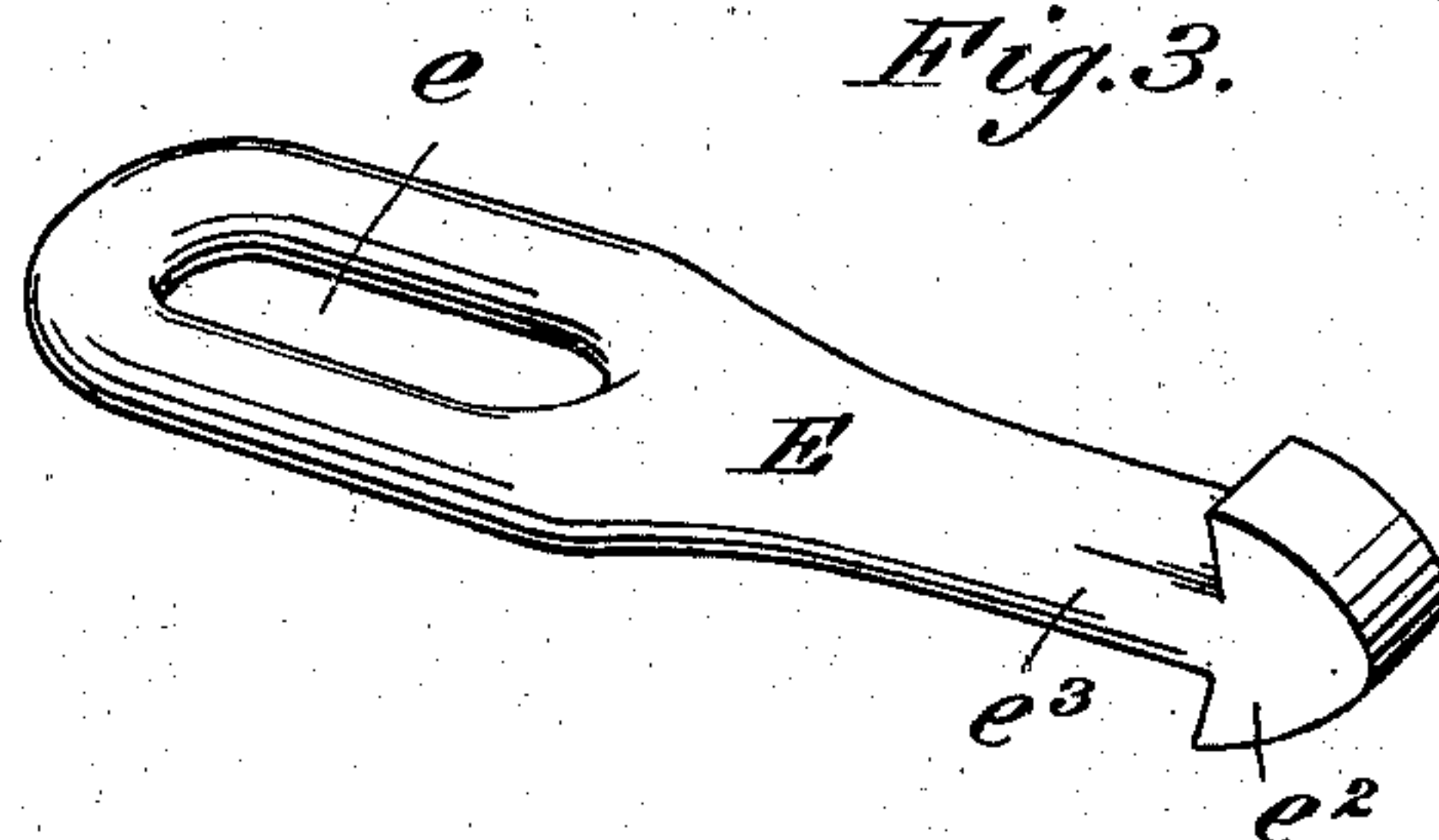


Fig. 3.



WITNESSES:

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LESLIE LONG, OF SUBLETTE, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 258,086, dated May 16, 1882.

Application filed February 14, 1882. (No model.)

To all whom it may concern:

Be it known that I, LESLIE LONG, of Sublette, in the county of Lee and State of Illinois, have invented a new and useful Improvement in Car-Couplings, of which the following is a full, clear, and exact description.

This invention consists in a novel construction, arrangement, and combination of a draw-head, spring-levers provided with studs or catches, and means for operating the said levers, as hereinafter more particularly described.

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

Figure 1 is a longitudinal vertical section of a coupling embodying my improvements. Fig. 2 is a top view of the same, and Fig. 3 is a perspective view of the form of coupling-bar used in coupling a car provided with the old style of draw-head to one provided with my invention.

A is a draw-head, having its rear end provided with a draw-bar, a , working in a frame, B. To the inner end of this draw-bar a is attached a piston, a^2 , which slides in the frame B and guides the end of the draw-bar a . A partition, b , divides the frame B into two compartments, and is provided with a hole in the middle, through which the draw-bar a slides. This partition b serves as abutments for the inner ends of spiral springs b^2 and b^3 , which are intended to prevent injury to the draw-bar by sudden jars. The rear end of the spring b^2 bears against the piston a^2 , and the front end of the spring b^3 bears against a shoulder, b^4 , on the draw-bar a .

The draw-head A is provided with two rock-shafts, C, having bearings in the upper and lower sides of the mouth of the draw-head, which shafts form the fulcrums for levers D, attached to them. To the outer ends of these levers are pivoted pins d , which slide in holes in the draw-head A. The inner ends of these pins are tapered and bent slightly backward to form hooks d^2 . Spiral springs d^3 surround the pins d , between the levers D and the top and bottom of the draw-head A, to keep the hooks d^2 projected toward each other and into the mouth of the draw-head A.

The inner ends of the levers D are provided

with ropes or chains c , which are attached to a shaft or windlass, F. This shaft has bearings in the draw-head A, and is braced at its outer end to the body of the car I by a V-shaped brace, H. The said shaft is provided with a hand-wheel, G, at its outer end, and also with a ratchet-wheel, f , on the shaft, and a pawl, f^2 , carried by the brace H.

The coupling-bar E is made preferably in the form shown in Fig. 1, having a double hook or barb, e^2 , formed at each end, and on each side, behind the barb, protuberances e^3 . The link may, however, be made as shown in Fig. 3, having a barb on one end and a link on the other for coupling to cars provided with the old-fashioned link-and-pin couplings. The link may also be made with both a barb and a slot at each end.

The operation of my invention is as follows: When the cars are being coupled the coupling-bar E, being already held in the draw-head of one car, is forced into the draw-head of the other car between the hooks d^2 , which, after the barbed part of the coupling-bar passes them, are immediately forced into their former places by the springs d^3 , and prevent the coupling-bar from being withdrawn. When it is desired to uncouple a car the shaft F is turned by means of the wheel G or a crank, which winds up the chains c and draws the inner ends of the levers D nearer together, thus withdrawing the hooks d^2 from engagement with the coupling-bar, and allowing it to be withdrawn from the draw-head. When for any reason it is desired to retain the hooks d^2 in this position the pawl f^2 is engaged with the ratchet-wheel f , and prevents the shaft F from revolving.

The advantages of my invention are greater steadiness of the coupling-bar in the draw-head, both when coupled and uncoupled, greater strength and durability of the coupling-bar, and greater facility in coupling than heretofore.

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

1. In a car-coupling, the combination of a coupling-bar, E, formed, as above described, with a draw-head, A, provided with levers D, having pivoted hooks or studs d^2 and springs

d^3 , substantially as and for the purpose herein set forth.

2. In a car-coupling, the pivoted and spring-pressed levers D, provided with the pivoted
5 hooks or studs d^2 on their outer ends, in combination with the draw-head A, and means, substantially as herein shown and described,

for operating the said levers, as and for the purpose set forth.

LESLIE LONG.

Witnesses:

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