

J. M. BAILEY & R. H. GARNER.

CAR-COUPLING.

No. 172,371.

Patented Jan. 18, 1876.

Fig. 1.

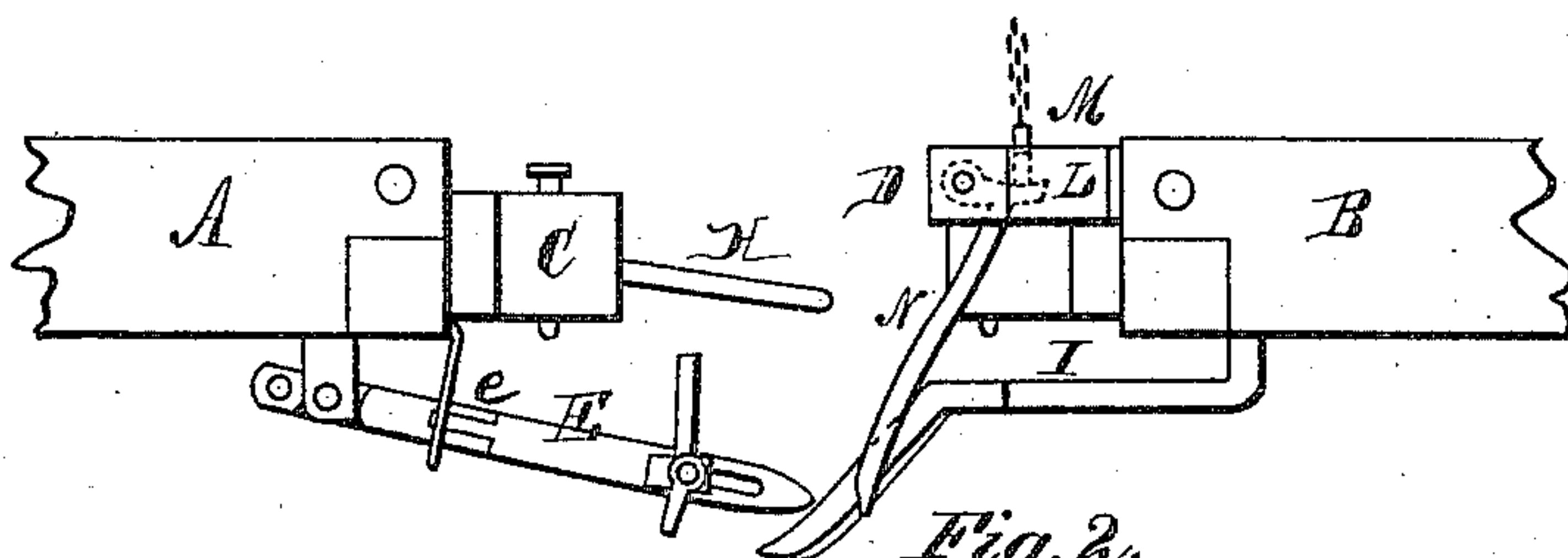


Fig. 2.

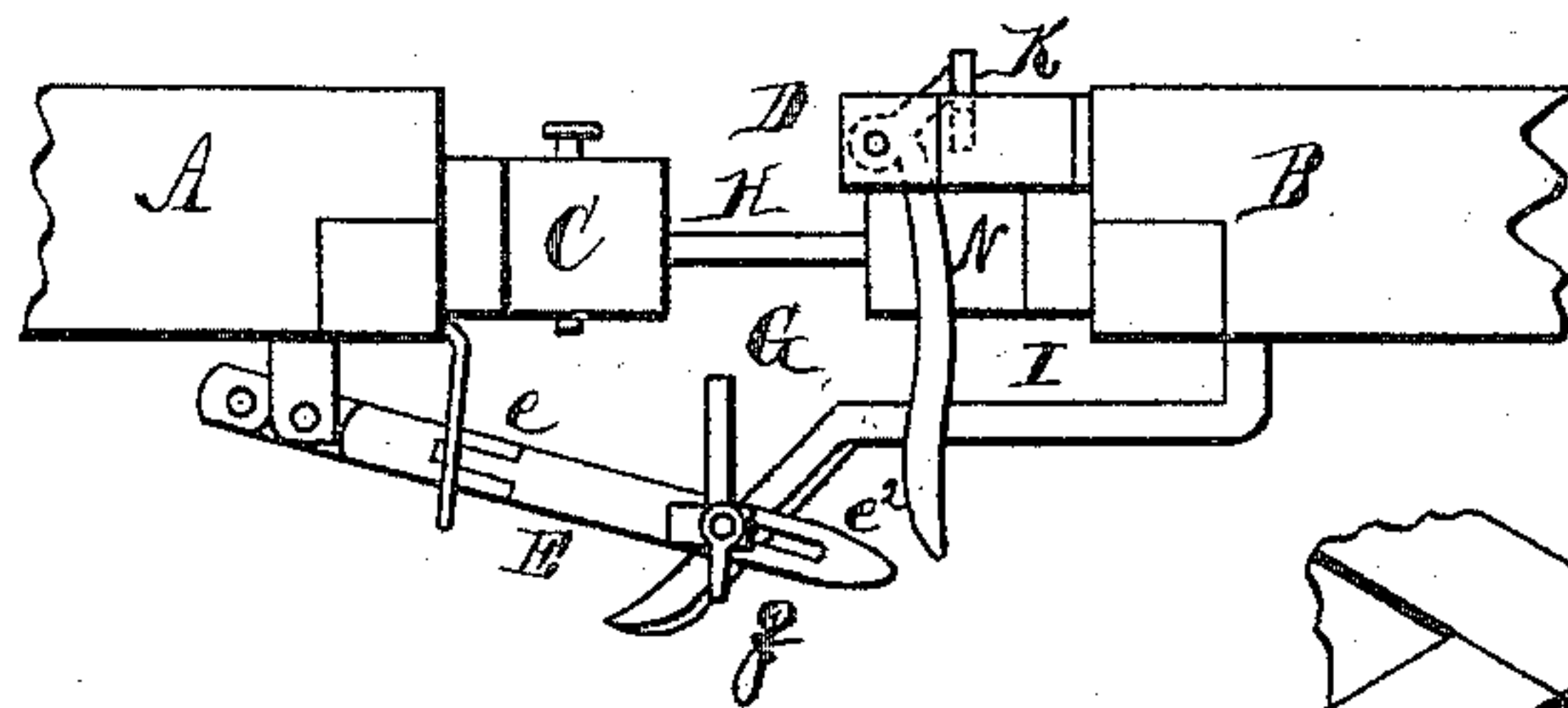


Fig. 3.

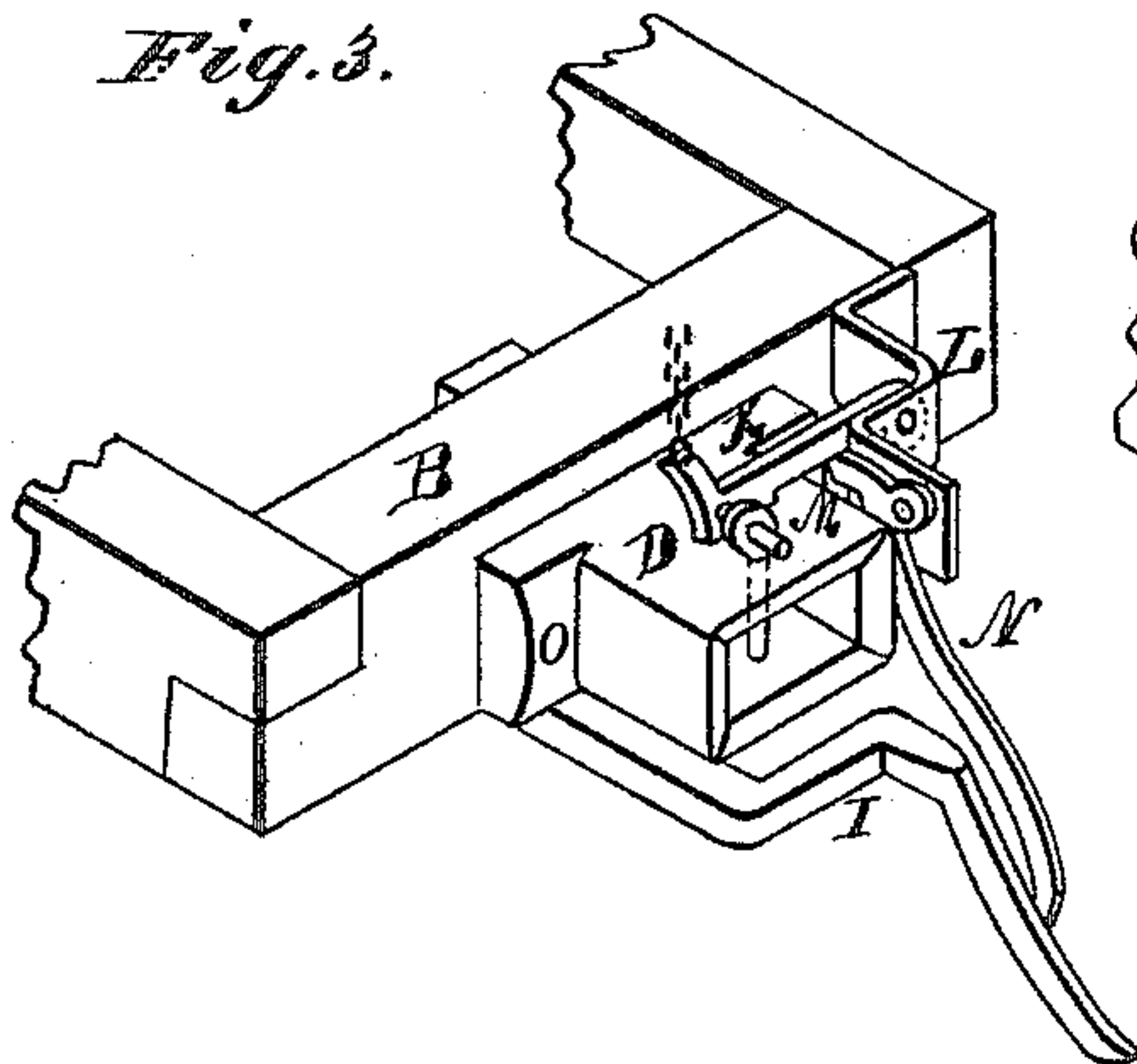
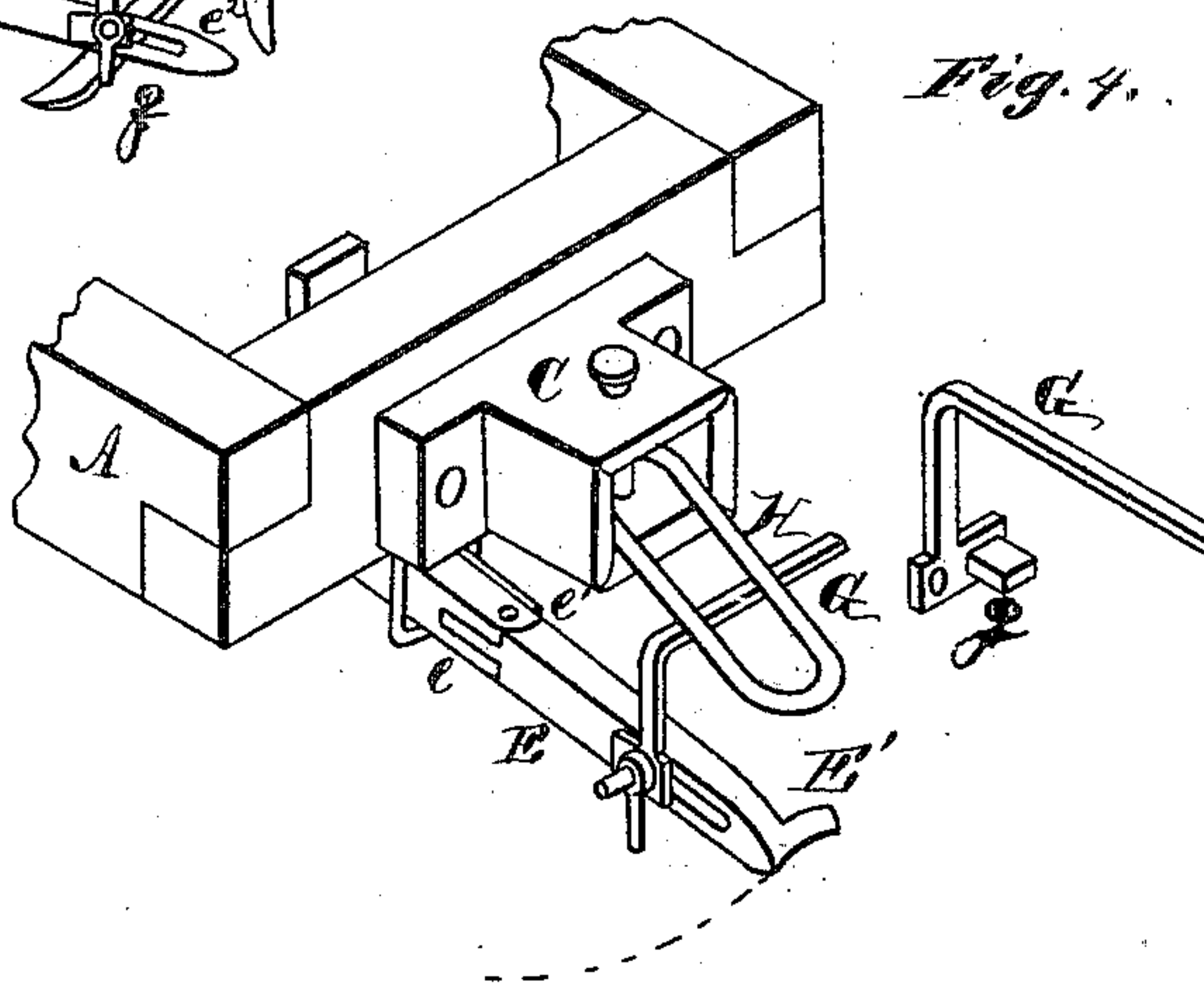


Fig. 4.



WITNESSES

Henry W. Miller  
C. L. Ewert.

By

INVENTOR

J. M. Bailey.  
R. H. Garner.

Alexander Mason  
Attorneys.

# UNITED STATES PATENT OFFICE.

JOHN M. BAILEY AND RICHARD H. GARNER, OF ZEBULON, GEORGIA.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 172,371, dated January 18, 1876; application filed November 24, 1875.

*To all whom it may concern:*

Be it known that we, JOHN M. BAILEY and RICHARD H. GARNER, of Zebulon, in the county of Pike and in the State of Georgia, have invented certain new and useful Improvements in Car-Coupling; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in automatic car-couplers; and it consists, first, in an improved device, attached to one end of a car, for automatically raising and guiding the coupling-link into the buffer of the opposite car, said device consisting of a hinged lever pivoted to one end of the car, and provided with a bent arm extending upward, which lifts and guides the coupling-ring when said lever is raised by the action of a bent arm attached to the opposite car, when the two cars are brought together; second, in an improved device for operating the coupling-pin attached to the opposite car, consisting of two levers working together, one of which carries the coupling-pin, the other serving to raise and drop the first, and with it the coupling-pin, being operated by the hinged lever attached to the first-mentioned car, all of which will be fully hereinafter described.

In the drawings, Figure 1 represents a side view of the two portions of my improved coupler uncoupled. Fig. 2 represents a similar view of the two parts coupled. Fig. 3 represents a perspective view, showing the devices for operating the coupling-pin; and Fig. 4 a similar view, showing the devices for operating the link.

The letters A B represent the car-trucks, and C D the buffers attached thereto. To the bottom of the car A, to one side of the buffer C, is attached a hinged lever, E, projecting forward beyond the buffer, and supported by a link attached to the front of the car. Said lever is jointed or hinged at *e*, and provided with a spring, *e*<sup>1</sup>, for the purpose to be presently explained. G represents a bent arm secured to the lever E in the slot *e*<sup>2</sup> by means of a clamp and screw, *g*. Said arm extends upward, and is adjusted so as to come di-

rectly under the link H, and lift it when the lever E is raised. The letter I represents a bent arm rigidly attached to the bottom of the second car, and projecting beyond the end of the same, forming an inclined guide for the end of the lever E on the first car, and serving to raise the same when the two are brought together. K represents a lever, pivoted at one end to a frame, L, attached to the end of the second car, and carrying at the other end the coupling-pin M, which is pivoted or otherwise attached thereto. N represents a bent lever, pivoted at its angle to the frame L in such position that its short arm will fall under the lever K when the same is raised in the position shown in Fig. 1, the long arm falling to the side of the inclined portion of the arm I. P represents a chain attached to the end of the lever K for the purpose of uncoupling the cars, and setting the coupling devices.

The operation of the device is as follows: The coupling-link is permanently secured to the buffer C on the car A, the lever K being raised so as to allow the short arm of the lever N to fall under the same, and the long arm into position shown in Fig. 1. The two cars are then in condition to be coupled by simply running them together. Upon approaching, the end of the lever E will be lifted by means of the inclined portion of the bent arm I, raising the link by means of the bent arm G to proper height to enter the buffer D. The lever E will at the same time engage the long arm of lever N, and push it forward, raising the lever K and coupling-pin M until the link is inserted in the buffer. The short arm will then release the lever K, allowing the coupling to drop, and securing the link. The parts will then be in the position shown in Fig. 2. To uncouple the cars, it is only necessary to raise the end of lever K, and separate them. The lever N will drop to position shown in Fig. 1 by its own weight, and the lever E will be turned to one side on the pivot or hinge E, allowing the bent end E' of said lever to clear the arm I, the spring *e*<sup>1</sup> throwing the lever E to its proper position after it has passed said arm.

Having fully described our invention, what we claim and desire to secure by Letters Patent, is—



1. The combination of the car A and its buffer C, with the hinged lever E, provided with bent end E' adapted to work with the bent arm I, and raise the link H by means of the bent arm G, as and for the purpose specified.

2. In combination with the car B and its buffer D, the levers K to carry the coupling-pin, lever N to operate lever K, and the hinged lever E on the opposite car for operating the said lever N for the purpose of automatically

raising and dropping the coupling-pin, substantially as herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 2d day of March, 1875.

JOHN M. BAILEY.  
R. H. GARNER.

Witnesses:

Z. T. WILLIS,  
H. L. EPPINGER.