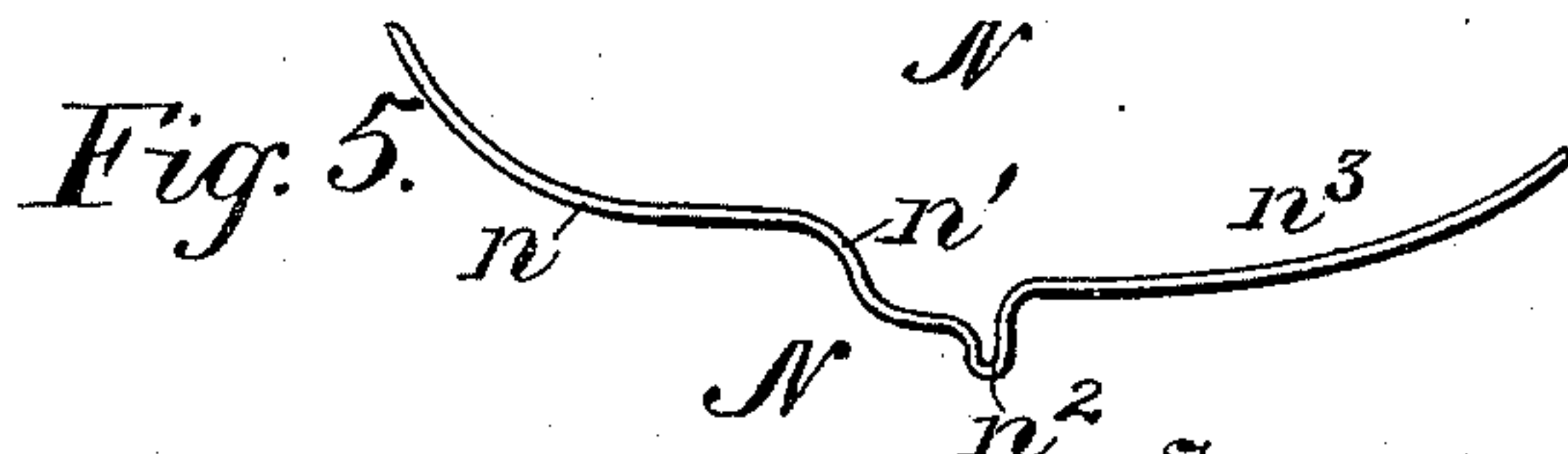
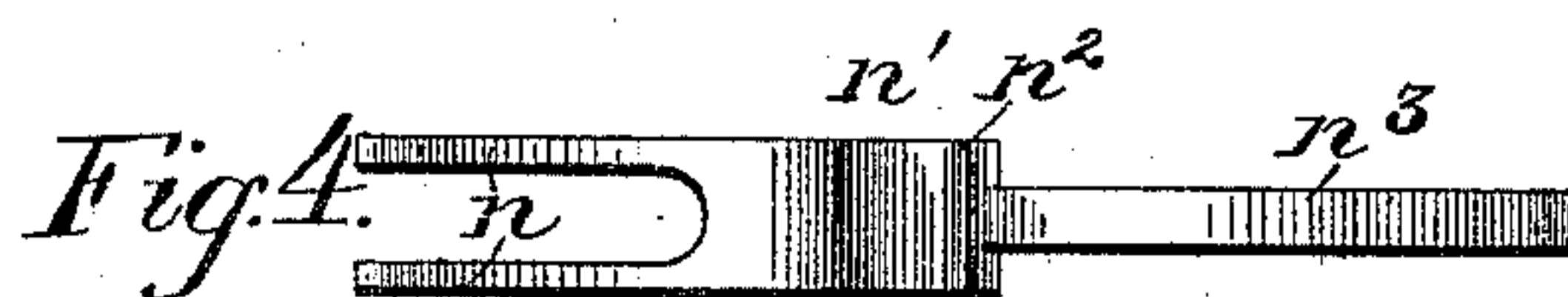
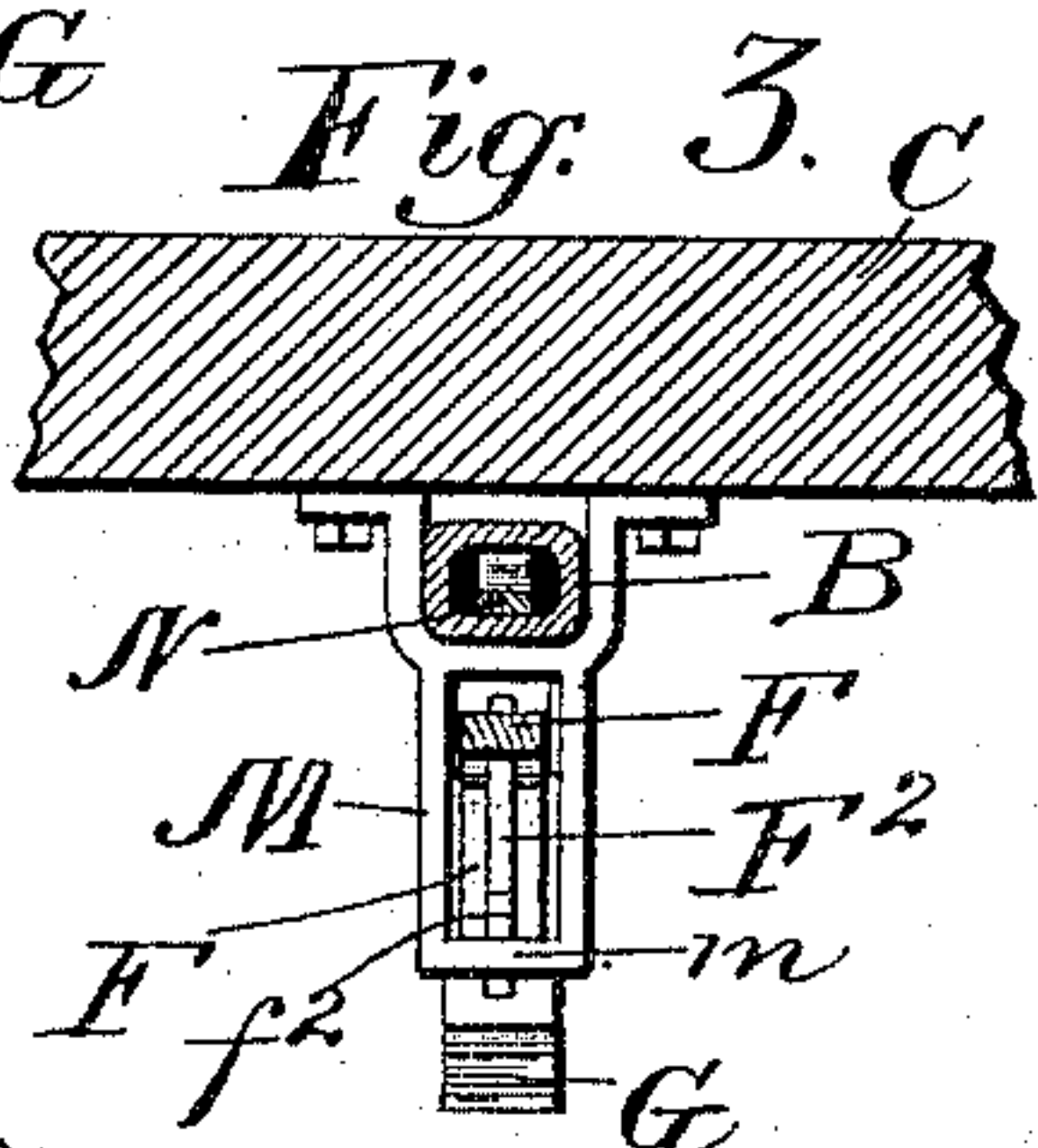
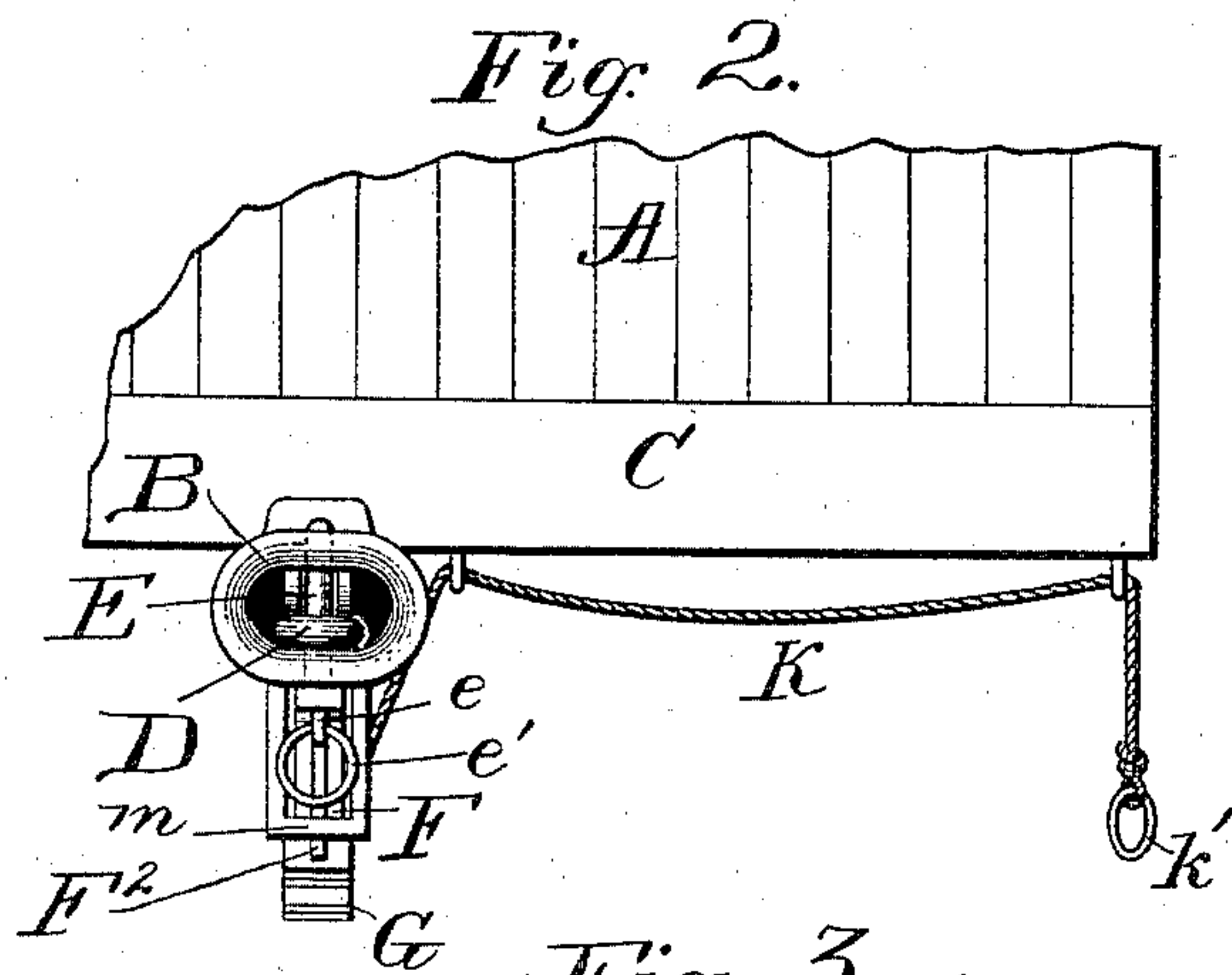
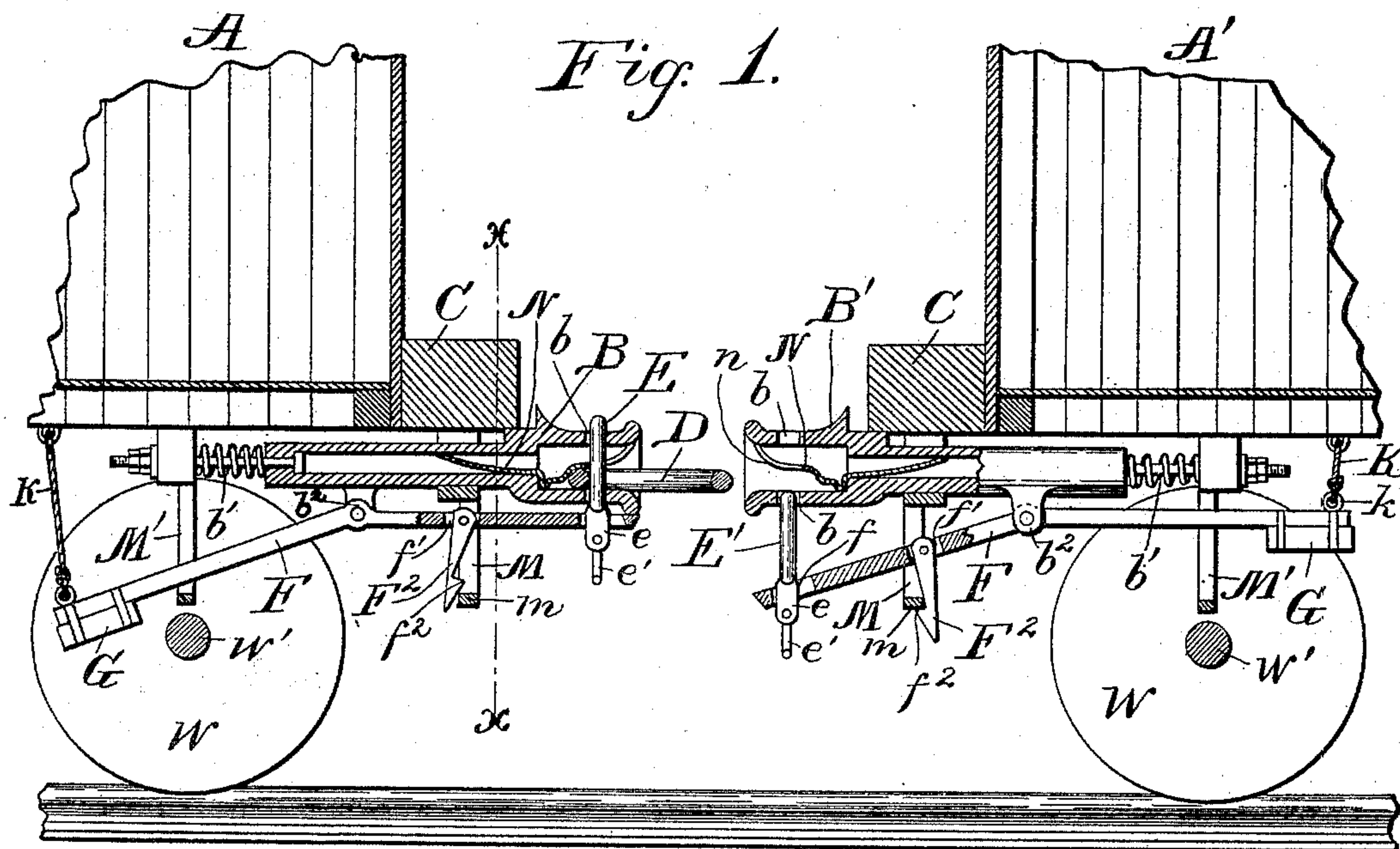


(No Model.)

R. R. WILSON.  
CAR COUPLING.

No. 495,539.

Patented Apr. 18. 1893.



Witnesses

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Inventor

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# UNITED STATES PATENT OFFICE.

ROBERT R. WILSON, OF NEW ORLEANS, LOUISIANA, ASSIGNOR OF ONE-HALF  
TO W. H. BUFINGER AND ARTHUR BURBANK, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 495,539, dated April 18, 1893.

Application filed July 1, 1892. Serial No. 438,687. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT R. WILSON, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to car couplings, and especially to those of the link-and-pin type. It is especially intended as an improvement upon the form of coupler shown in my application Serial No. 424,860, filed March 14, 1892, the object of the said invention being to provide a car coupler having the pin enter from beneath the drawbar, and holding the pin at all times securely in the draw-head, either when in position for coupling, or when coupled. These objects are obtained by the mechanism illustrated in the accompanying drawings, wherein the same parts are referred to by the same letters throughout the several views.

Figure 1 represents a central longitudinal section through two cars about to couple together, and illustrates the operation of my coupler. Fig. 2 represents a front view of one of the couplers. Fig. 3 represents a section along the line  $xx$  of Fig. 1, looking to the left. Fig. 4 represents a top view of the spring for steadying the link in position, and for centering the same, and Fig. 5 represents a side view of the same.

A and A' represent two cars about to come together.

B and B' represent two drawbars constructed in the usual way for link-and-pin coupling, with pin holes  $b$ , and buffer spring  $b'$ ; the drawbar B having the link D, and the pin E in place, while the drawbar B' has the pin E' down, ready to be thrown into place when the cars buff together, as will be hereinafter described. The pin is flattened at its lower end as at  $e$ , and passes through a slot  $f$  in the bar F pivoted at  $b^2$  to the drawbar, and carrying at its opposite end a weight G. The pin is locked in the said bent bar by a ring  $e'$ , a cotter pin might be substituted for the ring. Pivoted at  $f'$  in the said bent lever F is a latch F<sup>2</sup> having a catch  $f^2$  adapted to engage

under the cross piece  $m$  between the guides M, (as shown to the right in Fig. 1,) when the pin is drawn down in position for coupling. This catch normally hangs out of the perpendicular as shown to the left in Fig. 1, and when the weight G is raised up, and consequently the pin E is lowered, the said catch  $f^2$  will swing under the said cross piece  $m$ .

M' is a guide for the rear end of the bent lever, and K is a rope or chain secured to the end of the lever at  $k$ , and terminating in a ring  $k'$ . This rope or chain passes through suitable guides, and may lead either to the side of the car or into the car, or to both, as may be desired.

N is a spring curved at  $n'$  and at  $n^2$ , as shown, and having two curved legs  $n$ , and a curved tail-piece  $n^3$ , the legs  $n$  being sufficiently far apart to allow the coupling pin to pass freely between them, and the tail piece  $n^3$  is small enough to enter the hollow portion of the drawbar, as shown. The function of this spring is to bear down on the end of the link, when it is in position, as shown to the left in Fig. 1, and so keep the link horizontal in proper position for entering the opposite drawbar when the cars come together.

C represents the dead-wood, to which the guides M are secured.

W represents a wheel, and W' one of the axles of the car, the journals and connecting parts, being omitted for the sake of clearness in the drawings.

The operation of the device is as follows:— When the cars are coupled, the weight is allowed to hang down, without any strain on the rope K, and the forward end of the bent lever is thus kept up, holding the pin in place in the drawhead, as shown to the left in Fig. 1. Should it be desired to uncouple, pull up on the rope K which will pull the pin out of engagement with the link, and allow the cars to separate. At the same time that the pin is moved clear of the link, the catch  $f^2$  will swing by gravity under the cross piece  $m$ , and if the rope K be slackened, this will hold the weight G up, and the pin E' down, ready for coupling again. Now should two cars buff together, as they are represented as about to do in Fig. 1, both drawbars will be pushed back against the springs  $b'$ , and the drawbar



B' will carry back with it its bent lever which is pivoted thereto, dragging the catch  $f^2$  from under the cross piece  $m$  which is connected to the guides M secured to the deadwood C,—as soon as this catch is disengaged, the weight G will fall, throwing the pin E' up into the drawhead, and engaging the link, thus coupling on the car.

It will be seen that with my improved form of coupler, there is no necessity for passing between the cars, for the coupling may be entirely operated either from the side of the car, or from the interior of the platform thereof, without in any way endangering human life.

It will be evident that a spring interposed between the lever and the car at any desired position on either side of the fulcrum may be substituted for the weight; and that various modifications would readily suggest themselves to any one skilled in the art, which could be used without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a link and pin car coupling, the combination with a drawbar having a pin hole

therein and a buffer spring in rear thereof, of a bent lever pivoted to the drawbar, a coupling pin attached to one end of said lever and adapted to engage in said pin hole, a weight attached to the other end of said lever, and a swinging latch pivoted to said bent lever and adapted to engage in rear of a fixed piece on the car, and to be disengaged when the cars buff together, as and for the purposes described.

2. In a link and pin car coupling, a link centering device consisting of a bent spring N placed in the drawhead, the said spring being curved at  $n'$  and  $n^2$  as shown and having legs  $n$  with an aperture between said legs to admit the coupling pin, and a tail piece  $n^3$  of reduced diameter adapted to engage in the hollow portion of the drawhead, substantially as and for the purposes described.

In testimony whereof I affix my signature in presence of witnesses.

ROBERT R. WILSON.

Witnesses:

FRED. ADOLPH,  
ERNEST J. WENDT,  
WM. KENAUDIN.