MOORE & BAKER.

Car Coupling.

No. 69,693. Patented Oct. 8, 1867.

Fig. 1

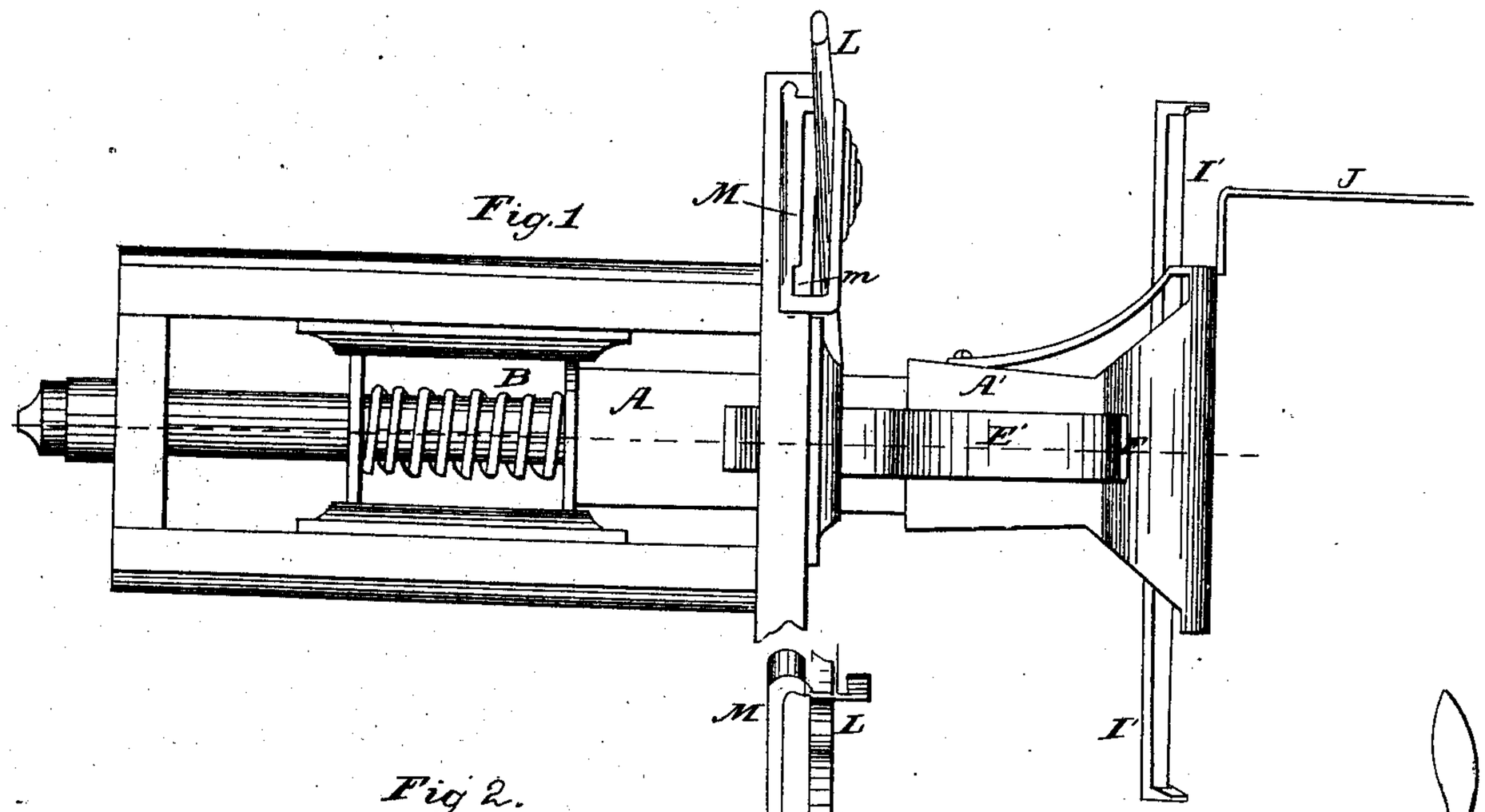


Fig 2.

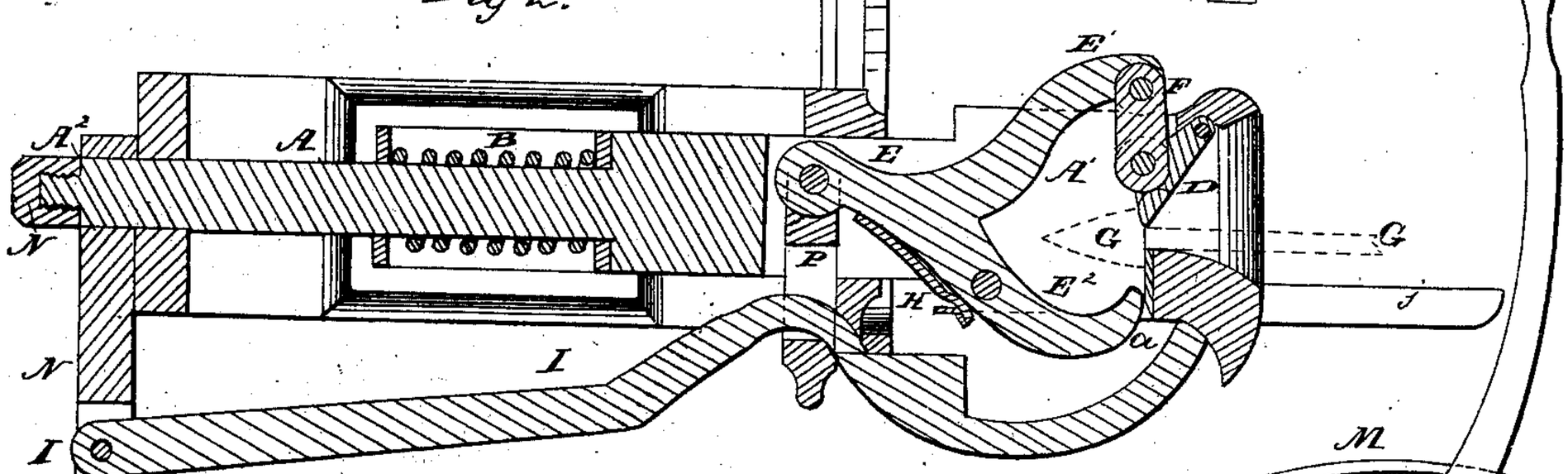
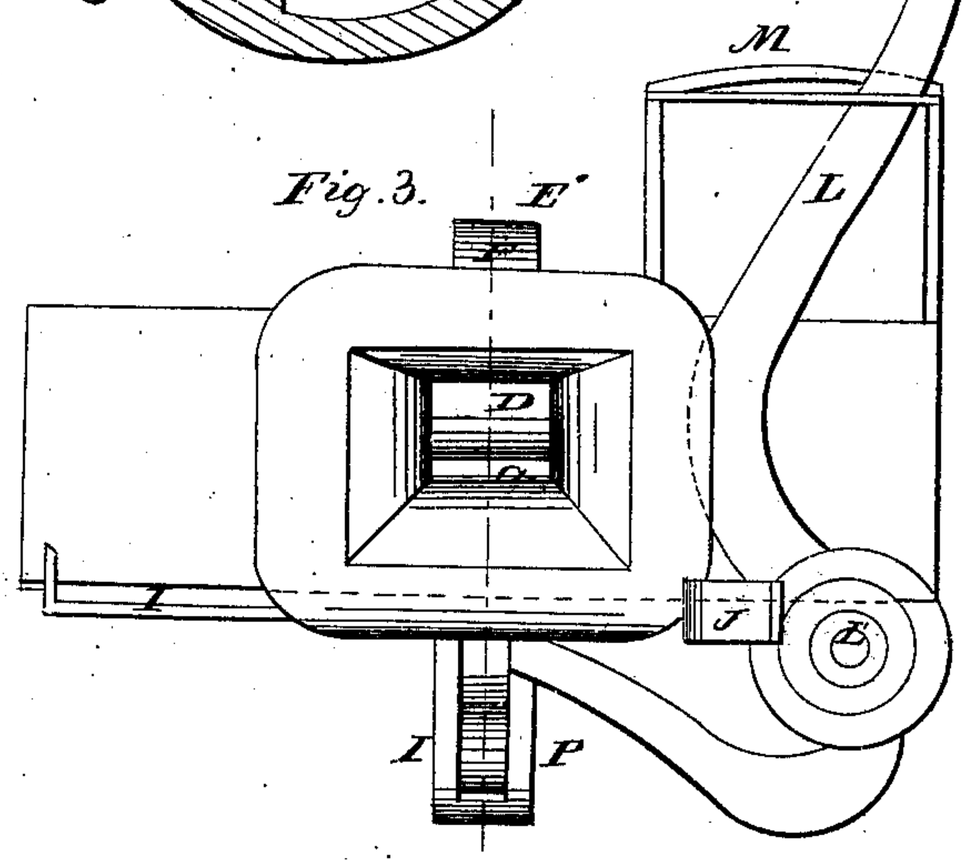


Fig. 3.



Witnesses
Geo A Morrison
A M Parker

Inventors
Edmond Ja Baker
Munn & Co attys

United States Patent Office.

FREEMAN MOORE AND JOHN A. BAKER, OF CARROLLTON, OHIO.

Letters Patent No. 69,693, *dated October* 8, 1867.

IMPROVED CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, FREEMAN MOORE and JOHN A. BAKER, both of Carrollton, in the county of Carroll, and State of Ohio, have invented certain new and useful improvements in Car-Couplings; and we do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, reference being had to the accompanying drawings, which are made a part of this specification, and in which—

Figure 1 is a plan of a car-coupling embodying our invention.

Figure 2 is a central longitudinal section of the same, the plane of section being indicated by the line *x x*, fig. 1.

Figure 3 is a front elevation.

Similar letters of reference indicate corresponding parts in the several figures.

This coupling consists of a hinged latch, which is arranged within the throat of the draw-head, and connected to a forked lever, which is acted upon by a spring, and pivoted in such a manner as to adapt the link or shackle to be automatically coupled when the cars come together, or to be instantaneously uncoupled in the event of one of the trucks running off the track. Provision is also made for operating the latch by means of a lever, so that the link can be uncoupled by a person standing upon the platform, the desired end being thus accomplished without exposing the body or limbs to danger.

In order that others skilled in the art to which our invention appertains may be enabled to fully understand and use the same, we will proceed to describe it in detail.

In the accompanying drawings, A may represent a draw-bar, to which a spiral or rubber spring is applied at B, to enable the draw-head A^1 to yield in customary manner when the cars come together. The interior of the draw-head A^1 diverges toward the mouth thereof, and in the throat of the draw-head is pivoted an angular latch, D, which is connected to the upper arm E^1 of the forked lever E through the medium of a link, F, which is jointed to its two connections, as represented. When the shackle G is coupled, its shouldered head engages on the under side with the shoulder *a* in the draw-head, and this engagement is maintained by the latch D, which not only serves to hold down the shackle G, but is adapted, by engaging with the upper shoulder on the shackle-head, to sustain the draught and prevent the shackle from becoming uncoupled when thrown upward by the jolting and vibrating motion of the cars. It will be observed that the coupling devices only sustain the draught temporarily, as it is applied directly and entirely to the draw-bar when the parts are in their normal condition. A flat spring, H, or any other suitable contrivance may be made to act upon the forked lever E, so as to hold down the forward end of the same, in order to retain the latch D in connection with the shackle G. The shoulder *a* in the draw-head is faced with a separate plate of steel, which is fastened in position by means of a set-screw or otherwise, so as to be replaced by a new plate when worn. I represents a lever occupying a central position below the draw-bar, as represented, and pivoted at *i* to a pendant, N, which is secured by a socket and nut, N′, to the rear end of the guiding-shank or stem A^2 of the draw-bar. The lever I is connected to the lever E through the medium of a slotted pendant, P, which is jointed to the rear end of said lever E. The lever I also carries at its free end a bar, I′, which rests beneath and projects laterally from the draw-head at either side thereof. J is a rigid arm attached to the side of the draw-head, and extending forward of the same. An arm on the adjacent car, and corresponding with J, will bear downward upon the bar I′ in the event of either of the cars running off the track, and the consequent depression of the lever I will actuate the lever E, causing the lower arm E^2 of said lever to raise the lower shoulder of the shackle out of engagement with the shoulder *a*, while the simultaneous upward movement of the upper arm of the lever raises the latch D. Thus the shackle is instantly released, so as to uncouple and detach the adjoining cars in case one of them should run off the track. L represents a lever secured to the frame of the car by a fulcrum-pin, L′, and designed to be vibrated by a person standing upon the top or platform. The hooked end of the horizontal arm of this lever when forced downward bears upon the lever I, and by depressing the rear end of E has the same effect as the depression of the bar I′, as above described, namely, to release the shouldered head of the shackle G and permit the same to uncouple. The lever L is intended to form the means of uncoupling under ordinary circumstances. The lever L, when in position to disengage the coupling devices may be held immovably by resting in

a notch, *m*, of the stationary segment M. If the lever occupy this latter position when the cars are coupled, the frictional action of lever I upon J will be sufficient to throw the vertical arm of L out of the notch *m*, thereby permitting the coupling devices to instantaneously engage with the entering shackle. Of course it is unnecessary to hold up the latch D by means of the lever L, for the tapering head of the shackle G will, on entering the draw-head, lift and pass behind the latch D, which is then immediately depressed by the conjoint action of the shackle-head upon the arm E^2, and of the spring H upon the lever E.

We have thus described devices which will unfailingly couple the cars without manipulation, and which will instantly disconnect the cars in case of accident, together with a simple and effective means whereby the coupling is placed under the control of a person upon the car or platform.

Having thus described our invention, what we claim as new herein, and desire to secure by Letters Patent, is—

1. The latch D, in combination with the forked lever E E^1 E^2, the same being arranged so as to automatically couple the link or shackle G, substantially in the manner set forth.

2. The combination with the above of the lever I, bar I′, and arm J, the same being arranged as described, and employed to uncouple and disconnect the cars in the event of running off the track, substantially as set forth.

3. The combination of the latch D, link F, forked lever E E^1 E^2, and spring H, all arranged and operating in the manner and for the purpose specified.

4. The combination with the coupling and uncoupling devices herein described of the lever L, arranged and employed in the manner and for the purpose set forth.

To the above specification of our improvement we have signed our hands this 18th day of April, 1867.

FREEMAN MOORE,
JOHN A. BAKER.

Witnesses:

CHAS. A. PETTIT,
NATHAN K. ELLSWORTH.