

W. M. WISEWELL.
Car-Couplings.

No. 148,639.

Patented March 17, 1874.

Fig. 1.

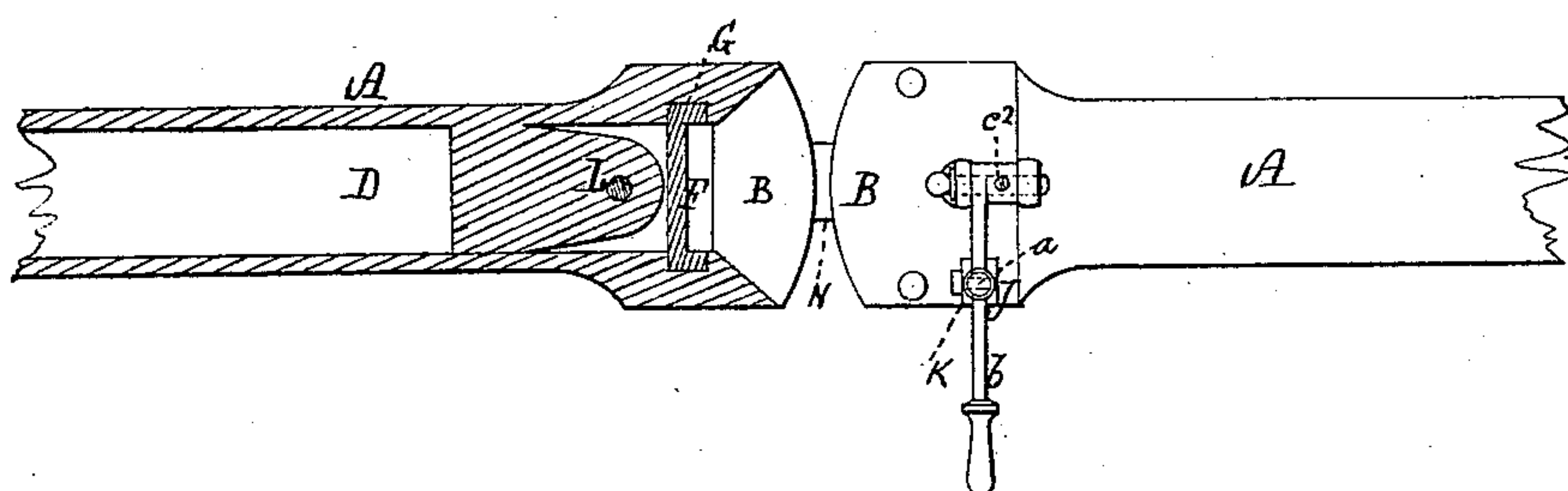


Fig. 2.

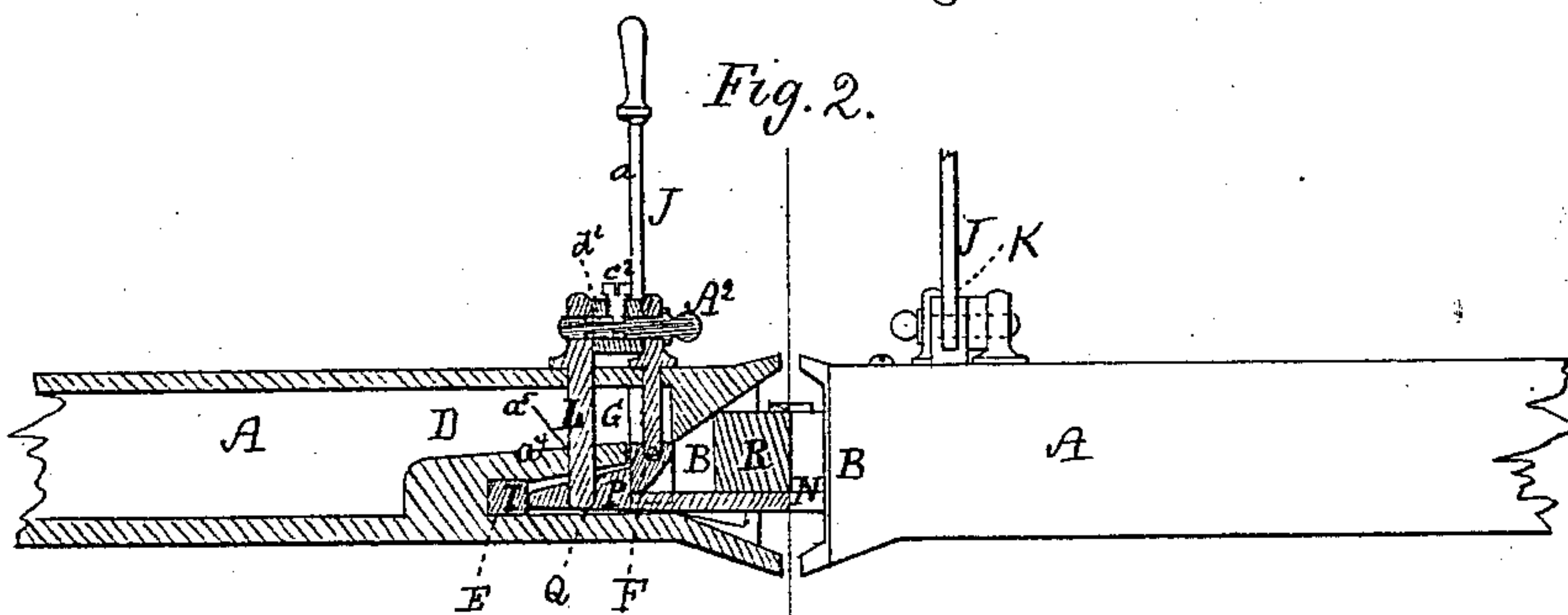


Fig. 3.

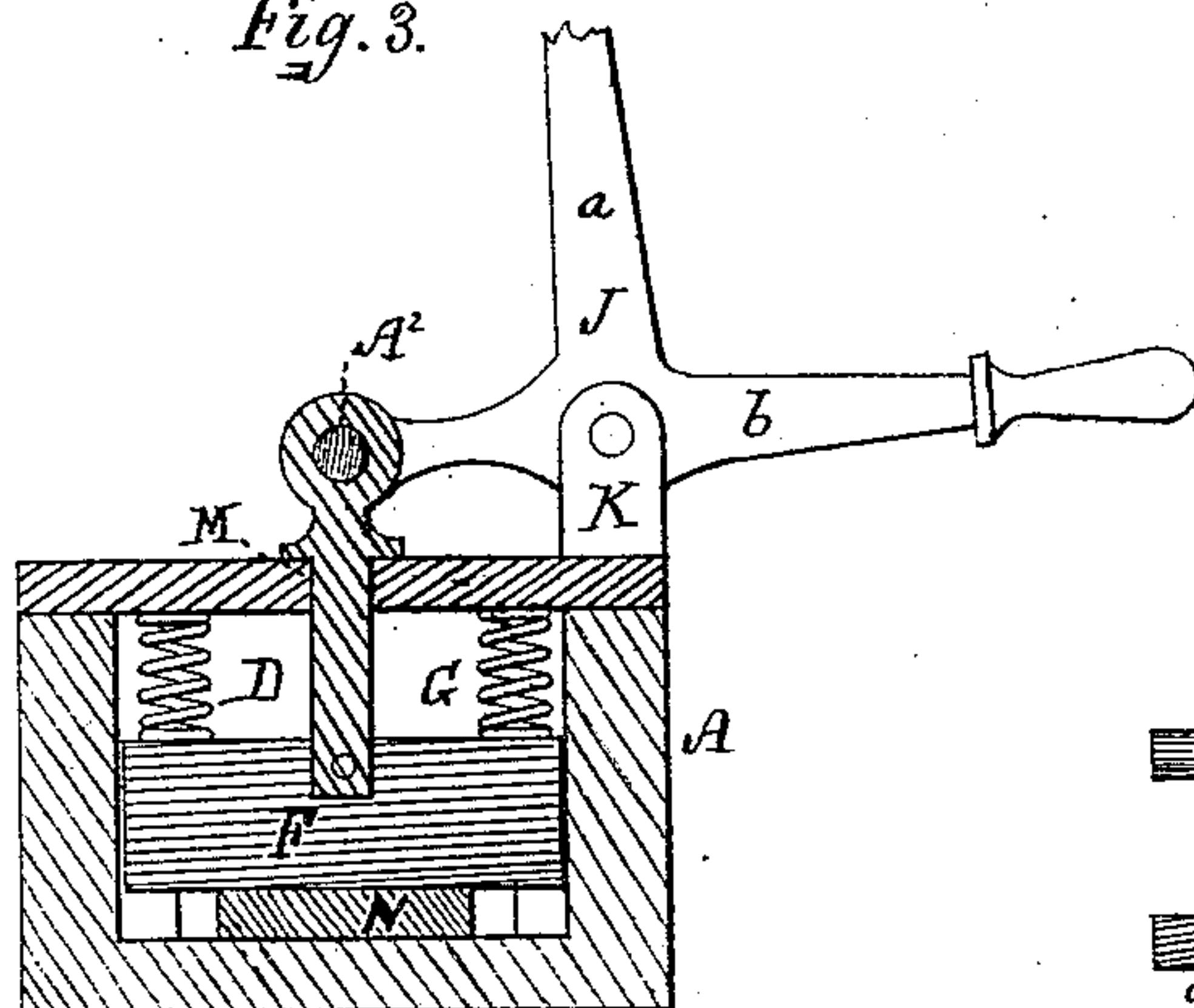


Fig. 6.



Fig. 4.

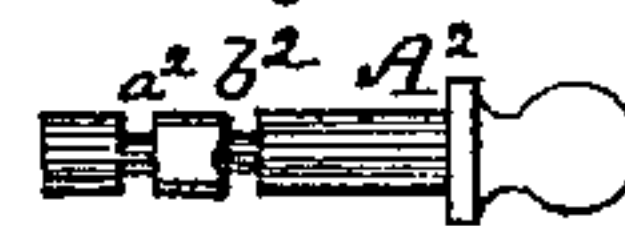


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM M. WISWELL, OF PORTLAND, MAINE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **148,639**, dated March 17, 1874; application filed May 1, 1873.

To all whom it may concern:

Be it known that I, WILLIAM M. WISWELL, of Portland, Cumberland county, Maine, have invented certain Improvements in Car-Couplings, of which the following is a specification:

The drawings accompanying this specification represent, in Figure 1, a sectional plan; in Fig. 2, a sectional elevation; in Fig. 3, a transverse section; and in Figs. 4 and 5, views of my coupling-pin, while Fig. 6 is a view of my double-hooked link.

In these drawings, A denotes the front end or portion of the draw-bar of a railway-car, the same terminating in a flaring mouth, B, while such draw-bar contains at its outer end a chamber or cavity, D, which is a continuation of the mouth B, and with such mouth constitutes the link-chamber of such draw-bar. The bottom or inner termination of the chamber D is recessed or formed with a pocket, as shown at E, and within this pocket I deposit a block, I, of india-rubber or other elastic material, the same being for the purpose of reducing the severity of the shock occasioned by the meeting of the bunters or draw-bars of two approaching cars. F represents an upright gate or latch, which plays within an orifice, G, created in the upper part of the draw-bar and intersecting the chamber D, the upper end of such latch being pivoted to the inner end of an inverted T-shaped lever, J, the base of this lever being fulcrumed to a post, K, erected upon side of the draw-bar, the upright arm *a* of said lever extending upward through or in front of the platform of the car, and into a convenient position to be seized by a brakeman while on such platform, while the horizontal arm *b* of such lever extends outwardly to such a distance that a brakeman standing on the ground may seize it and uncouple a car without entering between two cars, and thus avoid danger to himself, while the upright arm of the lever enables the brakeman to uncouple two cars from the platform of either. In rear of the latch F, and in longitudinal alignment therewith, I dispose an upright pin, L, which plays freely within a hole, M, created in the draw-bar, the upper end of the said pin L being pivoted to the inner arm of the lever J by the same pivot which unites the lever and latch F. In order to provide

great strength of bearing for the coupling, I dispose within the chamber D, and between the top and bottom thereof, and immediately over the nose of the link, a shelf or abutment, *a*⁴, this shelf being pierced with a hole, *a*⁵, to receive the pin. N in the drawings represents my coupling link or bar, which consists of a thin oblong bar or plate, somewhat tapering at each end, and at each end fashioned into a hooked nose or latch, P, a hole, Q, being made through each nose, as shown, the hook P being to operate in connection with the lower end of the gate F; while the hole Q is to receive the lower end of the pin L. Either the latch F or pin L would be sufficient to couple two cars firmly together; but, by means of the two, I provide additional strength and safety, and the use of the pin enables me to use the ordinary open link, should it become necessary from any cause. The pin L also provides a pivot upon which the link N swings, and is advantageous in other respects. R in the drawings represents a block or mass of india-rubber attached centrally to the upper side of the plate N, and serving to receive and ward off the shock which otherwise would result oftentimes from the meeting of two approaching cars. In order that I may readily detach the pin L, should occasion require, I have recourse to a journal of peculiar construction—that is, the journal or fulcrum A², which pivots the said pin L to the lever, is formed with two peripheral grooves or channels, *a*² *b*², near its smaller end, while, operating in connection with these grooves, is a screw, *c*², which is screwed through the top of the hub of the shorter arm of the lever. The two grooves *a*² *b*² communicate with each other by a longitudinal channel or a reduction of the periphery of the journal, as shown at *d*², this reduction constituting a road or path for the screw, whereby the journal may be changed endwise in its position, as a slight turn in either direction serves to remove the connection between the grooves from contact with the screw, and compels the latter to remain in one or the other of them, and thus lock the coupling-pin and the journal in a corresponding position.

By partially rotating the journal until the path *d*² coincides with the screw *c*², the journal

may be withdrawn to such an extent as to remove its outer end from the eye of the coupling-pin and permit the latter to be removed.

As the link or hooked bar N carried by one draw-bar approaches a draw-bar which contains no link, the free end of the link enters the mouth of the draw-bar which it is approaching, and, abutting against the latch F, pushes the latter until the hook of the link has passed inward beyond such latch, when the latter settles down in front of such hook and securely locks the two draw-bars A A together, the pin L at the same time dropping into the hole of the link.

I thus obtain a strong, durable, and effective coupling, which is automatic in its action, and which may be readily operated from the ground or the platform of the car.

I claim—

1. The draw-bar A, formed with the internal abutment a^4 , pin-receiving hole a^5 , and provided with the elastic seat I under and at the rear end of said abutment a^4 , as shown and described.

2. In self-locking car-couplings, the combination with the draw-bar of a vertically-sliding

latch, F, and coupling-pin L, connected together to be operated simultaneously by a single lever, J, substantially as and for the purposes shown and set forth.

3. In combination with the sliding gate or latch F and coupling-pin L, the T-shaped lever J, connected to said parts so that the lever may be operated from either the side or platform of the car, to effect the simultaneous movement of both the latch and the coupling-pin, as set forth.

4. In combination with the coupling-link N, having the hole Q and hook P, the sliding gate F, and coupling-pin L, connected so that the link, on entering the draw-bar, will raise the latch, lift the coupling-pin simultaneously, and afterward drop with the latch when the latter clears the hook P, the pin entering the hole Q at the same time that the latch drops in front of the hook P, as set forth.

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Witnesses:

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1.250
words.