(No Model.)

E. J. ROBERTS.

CAR COUPLING.

No. 294,810. Patented Mar. 11, 1884.

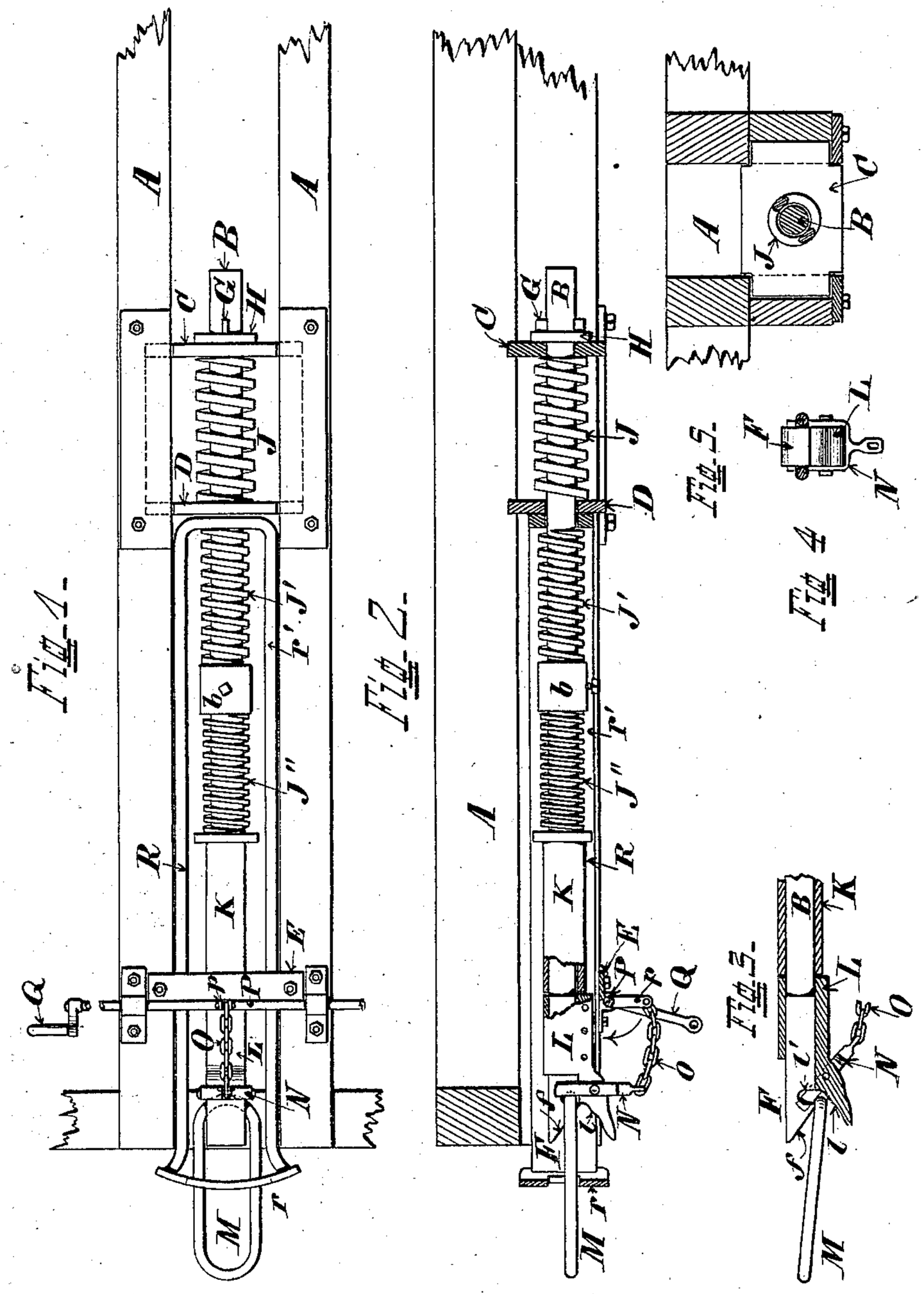

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Attest
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UNITED STATES PATENT OFFICE.

EDWARD J. ROBERTS, OF ASHLAND, KENTUCKY, ASSIGNOR OF ONE-FOURTH TO WILLIAM W. CULBERTSON, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 294,810, dated March 11, 1884.

Application filed September 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. ROBERTS, of Ashland, Boyd county, Kentucky, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention relates to an improvement in those car-couplings which are adapted to couple automatically and to be releasable by a person standing to one side of or on top of the car. It is so devised as to employ the customary link, and so as to be capable of coupling with another car of the ordinary construction.

In the accompanying drawings, Figure 1 is an under side view, and Fig. 2 is a longitudinal section, of a car-coupling embodying my improvements. Fig. 3 represents, by a longitudinal section, the operation of uncoupling. Fig. 4 is a front elevation of the coupling-jaws, the coupled link being shown in section. Fig. 5 is a transverse section on the line *x x*.

A may represent a portion of the bed-timbers of a railway-car. B is the draw-bar, having its rear end supported in abutment-plate C, and the sliding cross-head D, and having its front portion supported upon bearing-bar E. The draw-bar B terminates at its front portion in the hook-formed jaw F, beveled rearward and downward, as at *f*. A pin, G, and collar H, near the rear end of the draw-bar, serve to limit its forward movement to the position shown in Figs. 1 and 2. Rearward movement of the said draw-bar, and also rearward movement of the draw-head R, is resisted by a powerful helical spring, J, interposed between the abutment C and the sliding cross-head D. The draw-head R consists of a stirrup-shaped piece of iron, whose convex and perforated face-plate *r* is secured to a U-formed shank, *r'*, perforated for the traverse of the draw-bar, and open above and below, as shown. The draw-head is maintained at its normal position by the spring J J', and the draw-bar partly by that spring and partly by a helical spring, J', interposed between the inner shank, *r'*, and a collar, *b*, upon the draw-bar. Still another, but much lighter, helical spring, J'', interposed between said collar and a sliding sleeve, K, holds to its normal or latched condition (see Figs. 1, 2, and 4) a sliding jaw, L, having the represented upward and rearward bevel-front *l*. Inward thrust of the inserted link M is received by a vertical shoulder, *l'*, of the draw-bar. A forked lever, N, pivoted to the jaw L, and connected by chain O to crank *p* on the crank-shaft P, and having a handle, Q, accessible to the attendants, enables such attendants, by retracting the jaw, L, to the position shown in Fig. 3, and at the same time advancing and lowering the forks of the lever, to eject the link, as shown in said figure, and thus uncouple the car. In addition to these uses, the crank *p* may be brought (see arrow in Fig. 2) to press against the under side of the draw-bar, and by so doing adjust the inclination of the link, to facilitate coupling with a car of different height to that which carries the link.

I claim as new and of my invention—

In a railway-car coupling, the combination of draw-bar B, having the integral jaw F and the sliding jaw L, the independently-sliding draw-head R, the springs J J' J'', and the releasing-lever N, and operating crank-shaft P, substantially as and for the purpose set forth.

In testimony of which invention I hereunto set my hand.

EDWARD J. ROBERTS.

Attest:

GEO. H. KNIGHT,

S. S. CARPENTER.