

(No Model.)

R. DE LAN.  
CAR COUPLING.

No. 245,518.

Patented Aug. 9, 1881.

Fig 1

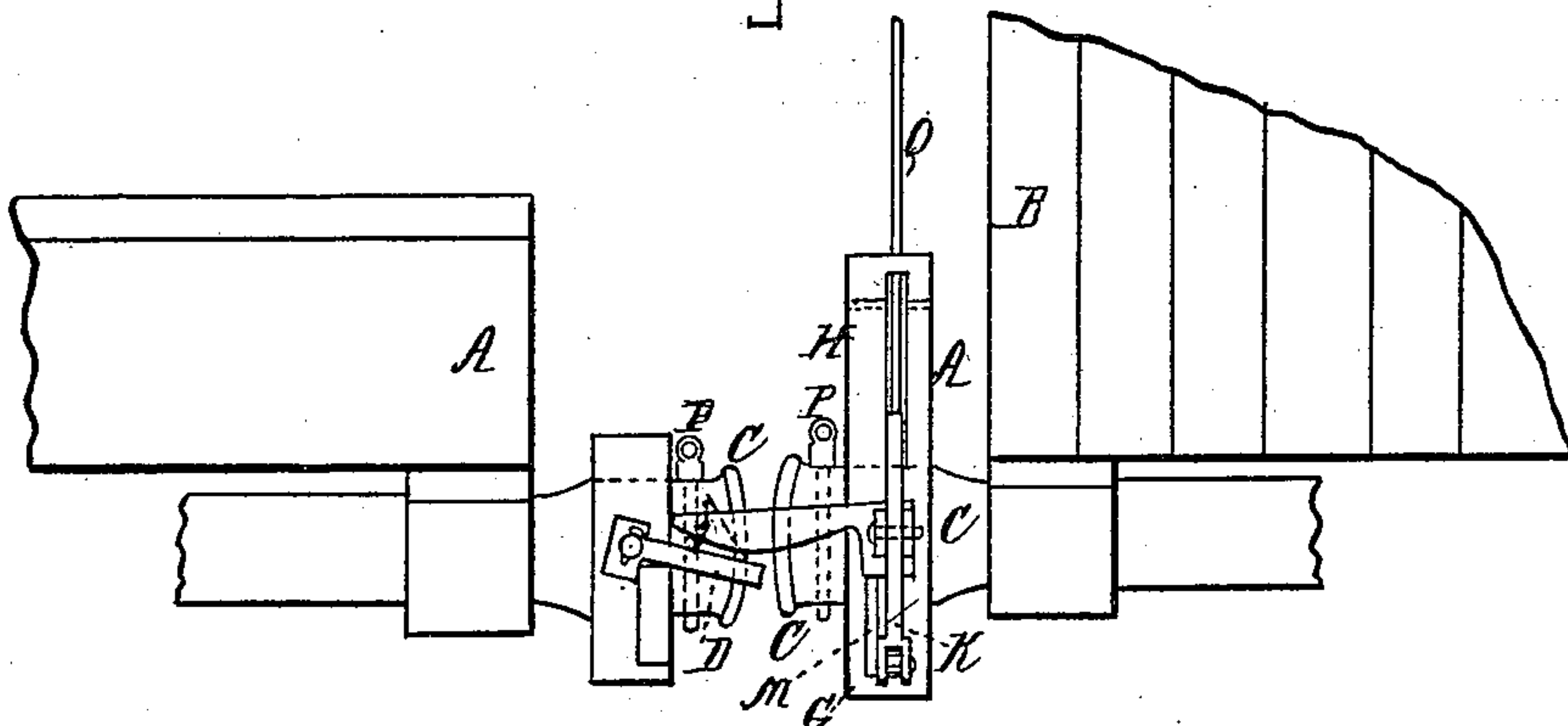


Fig 2

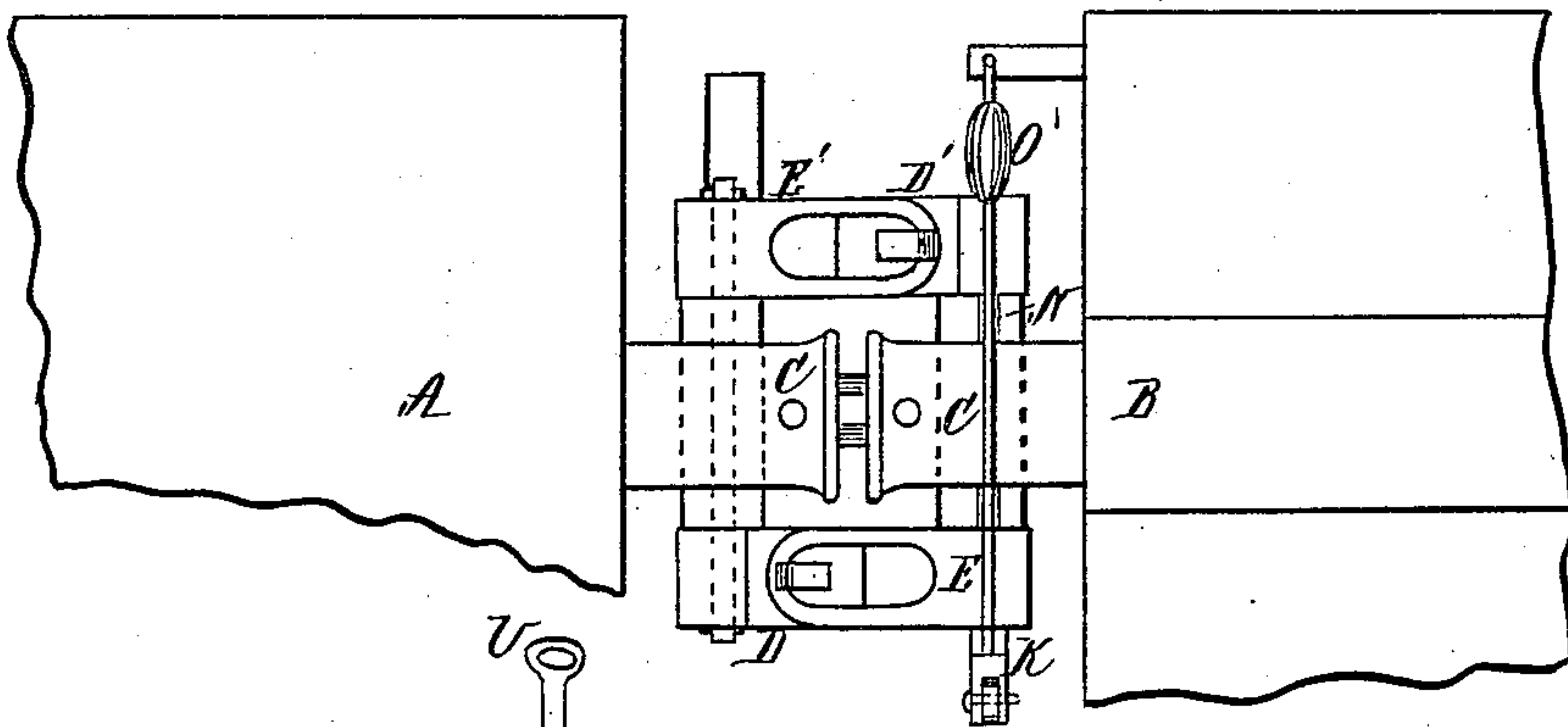
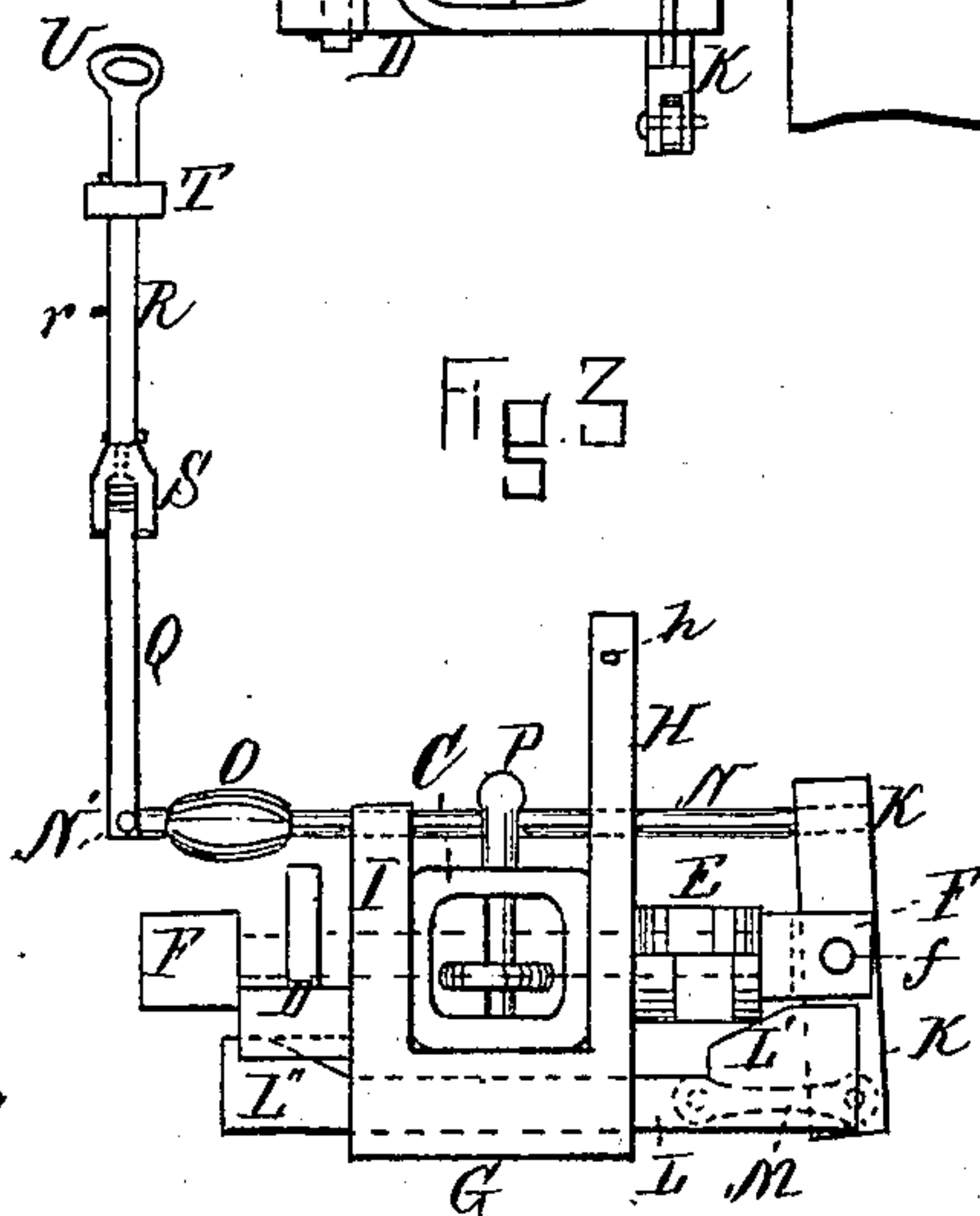


Fig 3



WITNESSES  
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INVENTOR  
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# UNITED STATES PATENT OFFICE.

RICHIE DE LAN, OF BOSTON, MASSACHUSETTS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 245,518, dated August 9, 1881.

Application filed May 16, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, RICHIE DE LAN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention relates to certain improvements in car-couplings with especial reference to the patent granted to me March 15, 1881, No. 238,866.

The object of my present improvement is to facilitate the operation of uncoupling the cars, and to effect the same by the movement of only one lever attached to either of two coupled cars.

Referring to the drawings, Figure 1 is a side elevation of my improved coupling. Fig. 2 is a top or plan view of the same. Fig. 3 is a front view.

A and B represent respectively portions of a platform-car and a box or freight car.

C C are the ordinary draw-heads, connected together by a link and bolts or pins P P.

D D' are hooked bars, and E E' are slotted bars, made substantially like those described in my patent above referred to, and are hinged or pivoted to bars F, which pass through and are fixed to the draw-bars C C.

To the draw-bar C on each car is attached, by means of the bar F, a frame, H I G, as shown more fully in Fig. 3. The upright portion H is slotted, and in the slot the bar N moves. At the upper part of the slotted portion H is a pin, *h*, passing through holes in the same for the purpose of holding up the arm N when the cars are uncoupled. When the cars are coupled and the arm N is down, the latter is supported in a recess on the top of the portion I.

Attached to the arm N is a weight, O, so as to render its action automatic and keep it properly held down in place.

To one end of the fixed arm F is pivoted at *f* a rocker-arm, K, and to the upper end of the said rocker-arm is pivoted the arm N.

In the lower part, G, of the frame H I G is fitted to slide freely a bar, L, having at each end the beveled portions L' L''. One end of the sliding bar L is connected at the rear by means of a link, M, (shown in dotted lines in Fig. 3,) to the lower end of the rocker-arm K,

so that as the arm N is raised or lowered the rocker-arm will cause the bar L to slide backward or forward accordingly.

The hooked bar D is arranged on one side of the draw-head C, and the slotted bar E is arranged on the other side of the same, so that when the cars come together they will be automatically coupled. The pivoted hook-bars and slotted bars rest upon the beveled or inclined portions L' L'' of the bar L, and these parts are so arranged that when the arm N is in its position of rest, as indicated in Fig. 3, the said hook-bars and slotted bars will be in position to couple and be held coupled. When the cars are to be uncoupled or disconnected the arm N is raised, causing the rocker-arm K, moving on its pivot *f*, to move the bar L, so that the incline L' will cause the slotted bar to rise off the opposite hook-bar on the other car, and at the same time the incline L'' will cause the hook-bar to fall and disengage itself from the opposite slotted bar on the other car, the simple movement to one side of the bar L thus causing the simultaneous upward motion of one bar and the downward motion of the other bar on the same common axis. The arm N is operated by means of a rod or bar, Q, pivoted to its end N'. The rod Q is connected by a joint, S, to a swiveled upper arm or rod, R, which passes through a guide, T, to be attached to the upper part of a box-car. A pin, *r*, on the rod R passes through a slot in the guide S, so that the rod R Q and arm N can be held in an elevated position when the cars are uncoupled.

My improved car-coupling, it will readily be seen, may be made and sold as a distinct article of manufacture, as it can be easily attached to cars already built and in use, in which the ordinary draw-bar, with its link and bolt, are used, the only mechanical work necessary being to make a hole through the draw-bar for the reception of the transverse bar F.

While being particularly adapted for use on the ordinary platform and box or freight car, the improved coupling can be applied also to passenger-cars.

What I claim as my invention is—

1. The sliding bar L, provided with the beveled portions L' L'', in combination with the

rocker-arm K and arm N, substantially as and for the purpose specified.

2. The combination of the hinged bars D and E with the beveled projections L' L'' on the sliding bar L, as and for the purpose set forth.

3. The combination of the frame I G H, the draw-bar C, the sliding bar L, provided with the beveled ends L' L'', the fixed bar F, the rocker-bar K, and arm N, substantially as specified.

4. The combination of the sliding bar L, the rocker-arm K, the weighted arm N, and the jointed and swiveled bars Q R S, as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RICHEL DE LAN.

Witnesses:

JOS. H. ADAMS,  
B. O'HARA.