

(No Model.)

I. LINTHICUM.

CAR COUPLING.

No.315,801.

Patented Apr. 14, 1885.

Fig. 1.

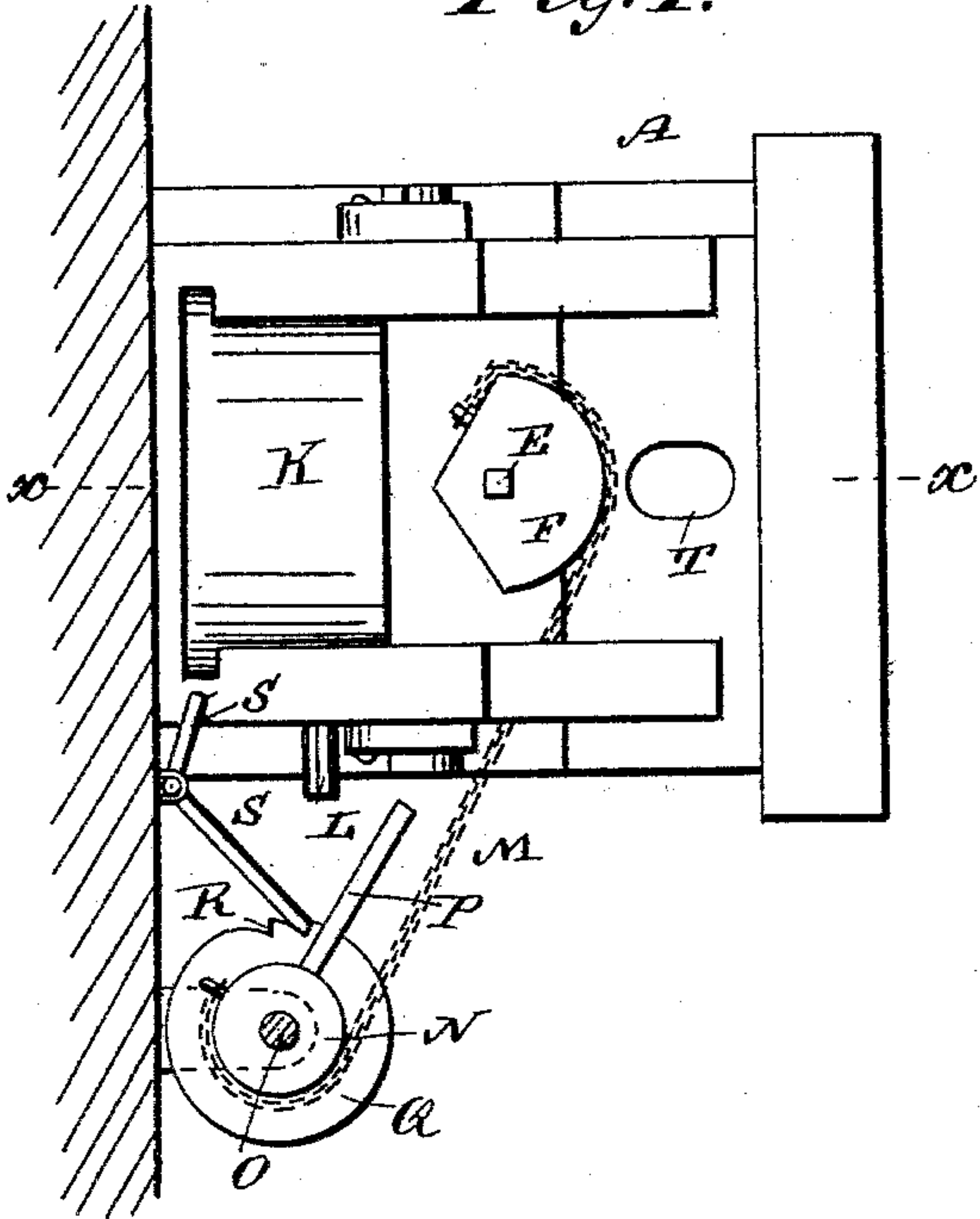


Fig. 3.

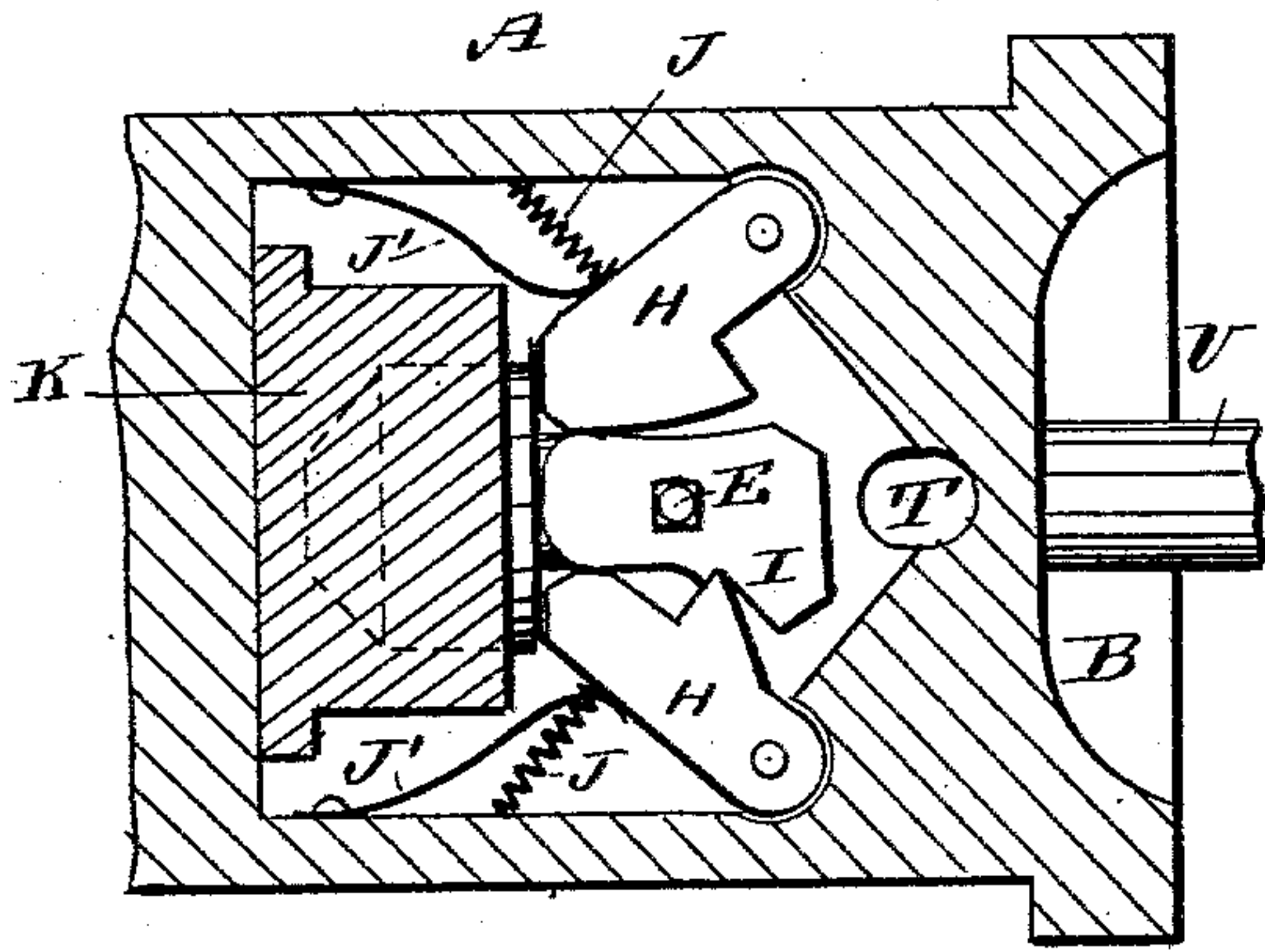


Fig. 4.

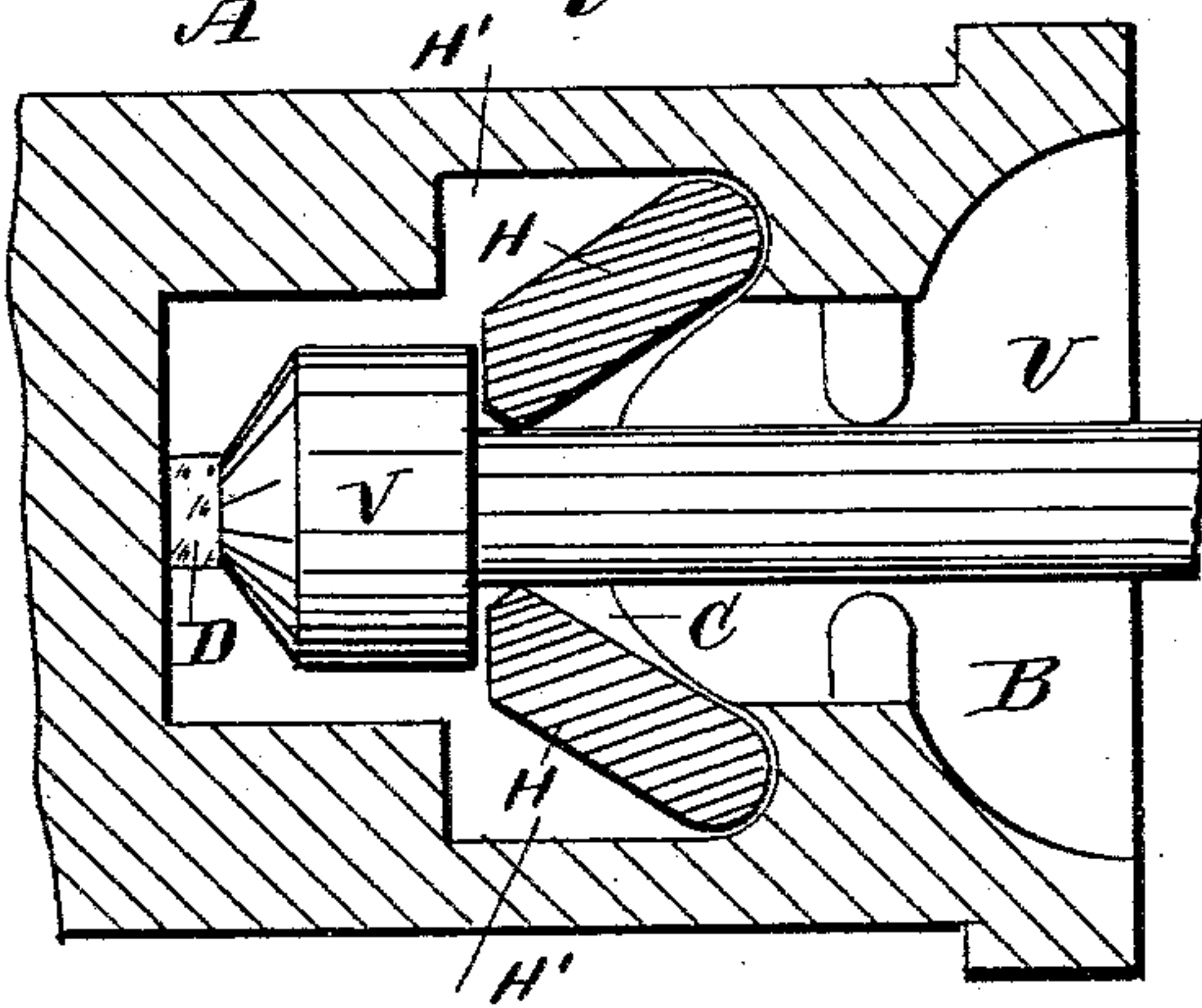
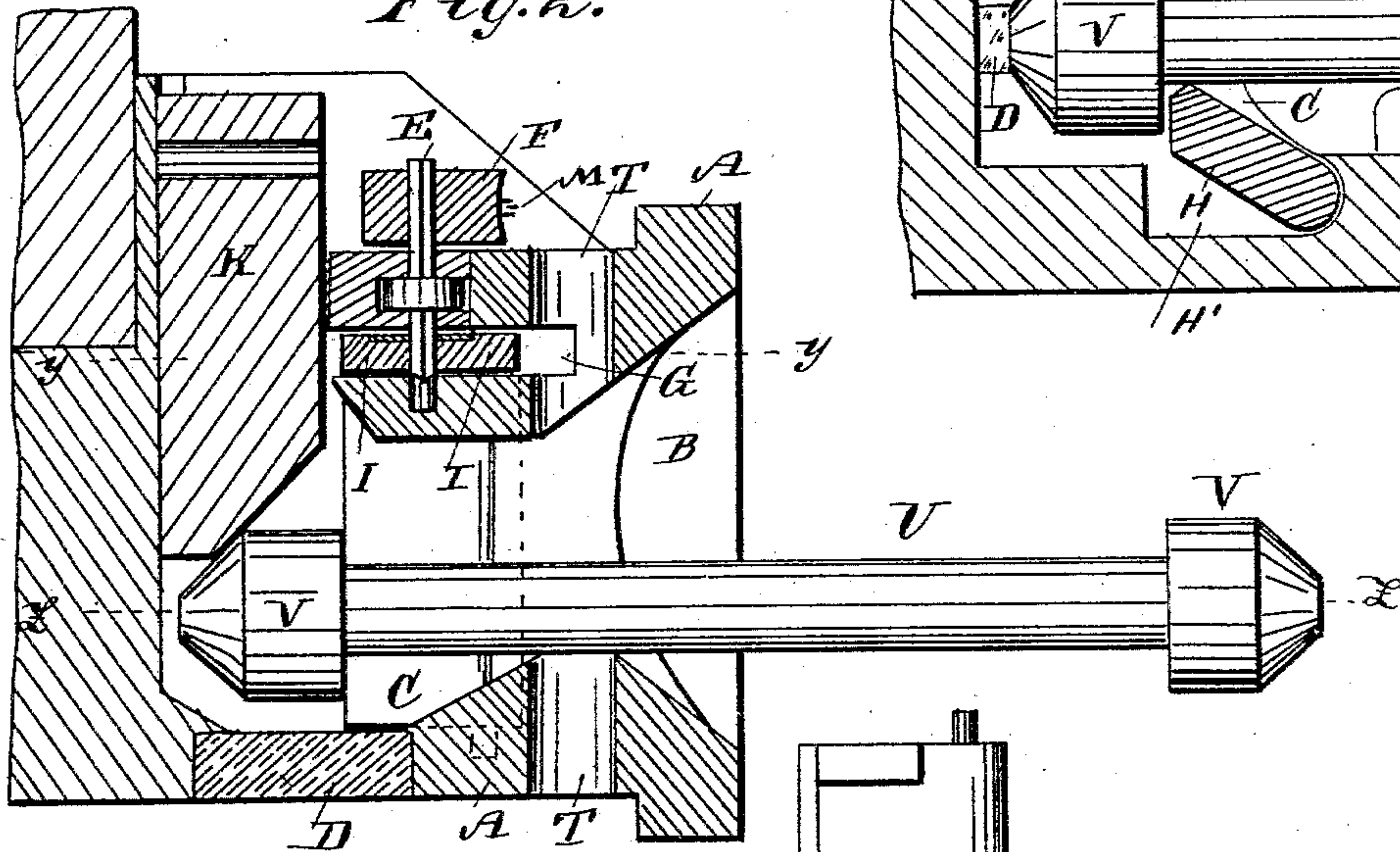


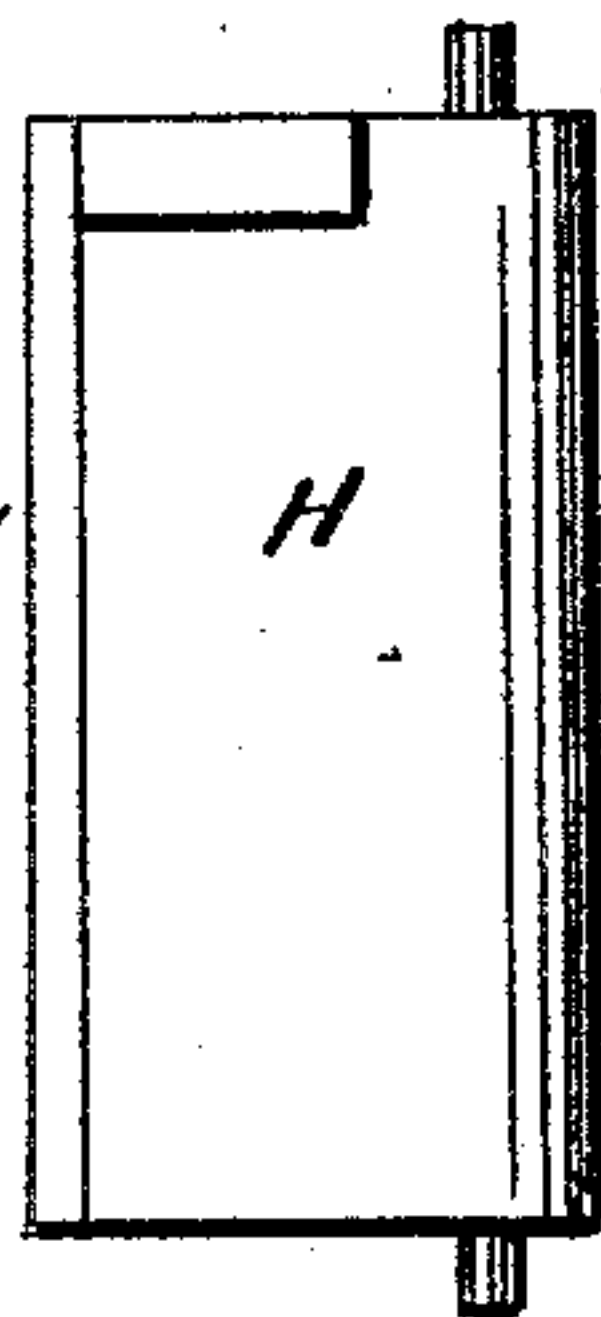
Fig. 2.



WITNESSES:

*Theo. G. Porter*  
*C. Sedgwick*

Fig. 5.



INVENTOR:

*I. Linthicum*

BY

*Munn*

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

ISAAC LINTHICUM, OF LIBERTY, NEBRASKA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 315,801, dated April 14, 1885.

Application filed November 28, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC LINTHICUM, of Liberty, in the county of Gage and State of Nebraska, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

This invention pertains to improvements in car-couplings; and it consists of the combinations of parts and their construction, substantially as hereinafter fully set forth and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved draw-head. Fig. 2 is a longitudinal sectional view of the same on the line *xx*, Fig. 1. Fig. 3 is a sectional plan view on the line *yy*, Fig. 2. Fig. 4 is a sectional plan view on the line *zz*, Fig. 2; and Fig. 5 is a face view of one of the wings.

The draw-head A is provided with a funnel-shaped mouth, B, behind the bottom of which a recess or cavity, C, is formed in the upper surface of the bottom of the draw-head, the front side of the cavity being beveled. The bottom of the cavity is formed of a magnetic plate, D. In the top of the draw-head a short vertical shaft, E, is journaled, on the upper end of which a disk or block, F, having a grooved semicircular edge, is rigidly mounted. In a recess, G, in the top of the draw-head a cam-piece, I, is rigidly mounted on the shaft E, and is adapted to act on the upper ends of wings H, arranged vertically in the draw-head and having their outer edges pivoted at the sides of the draw-head, thus adapting the wings to swing toward each other and toward the front of the draw-head, or from each other and toward the sides of the draw-head, in which sides recesses H' are formed for receiving them. Springs J J', secured to the inner surface of the sides of the draw-head, press the wings H toward each other and toward the outer end of the draw-head. A block, K, arranged to slide vertically in the rear part of the draw-head, has its lower end beveled. A stop-pin, L, projects from the said block through a vertical slot in the side of the draw-head to prevent withdrawing the said block entirely. A chain, M, has one end secured to the block F, and the chain is passed over

the grooved segmental edge of the block, and its other end is secured on the edge of a drum or pulley, N, mounted on the lower end of a vertical shaft, O, on the platform or car end, and provided at its upper end with a hand-wheel or other device for turning it; or the drum or pulley N on the shaft may be provided with an arm, P, for turning it.

On the shaft O a disk, Q, is mounted, which is provided with a notch, R, into which one end of a lever, S, can be passed for the purpose of locking the drum or pulley N and the shaft in place. The draw-head has the usual pin-apertures, T.

The coupling-link consists of a rod, U, having a head, V, at each end, the outer ends of the heads being beveled and the inner ends straight.

The operation is as follows: The entering head V of the rod U presses the wings H from each other, and when the head has passed the springs J J' force the wings against the rod and against the inner end of the head V, whereby the cars are coupled automatically.

To uncouple, the shaft O is turned so as to wind the chain M upon the pulley or drum N, whereby the disk F and the shaft E are turned and the cam I caused to act on the wings H and to separate them, thus permitting of withdrawing the link.

To adjust the draw-head so that it cannot couple, the shaft O is turned to separate the wings H, and is locked in place by passing the end of the lever S into the notch R, to prevent the springs J J' pressing the wings toward each other. The block K, resting upon the inner end of the link, keeps the outer end of the same raised. The magnet D attracts the inner end of the link, and thus assists in keeping the outer end raised. By raising the block K the outer end of the link is permitted to swing down.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the draw-head A and the coupling-pin U, of the vertically-sliding block K in the rear part of the same, substantially as herein shown and described.

2. The combination, with the draw-head A, of the pivoted wings H, the springs J J', the shaft E, the cam-piece I, the block or disk F,

the chain M, the shaft O, and the drum or pulley N, substantially as herein shown and described.

3. The combination, with the draw-head A, 5 of the pivoted wings H, the shaft E, the cam-piece I, the disk or block F, the chain M, the shaft O, the drum or pulley N, the disk Q, having a notch, R, and the locking-lever S, substantially as herein shown and described.

4. In a car-coupling, the combination, with 10 the draw-head and the coupling-pin, of the sliding beveled bar and the magnet disposed below the said sliding bar, substantially as and for the purpose set forth.

ISAAC LINTHICUM.

Witnesses:

E. G. SPENCE,

F. I. PALMER.