

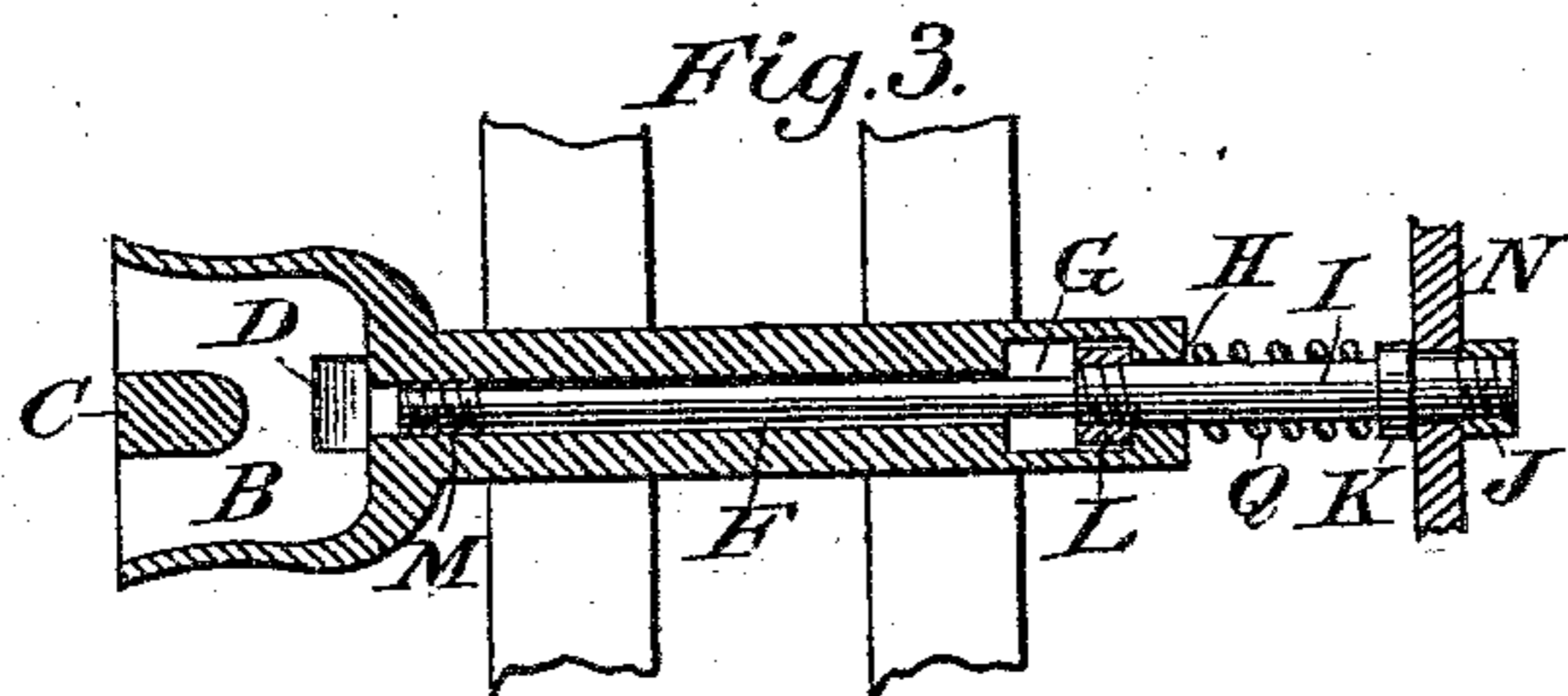
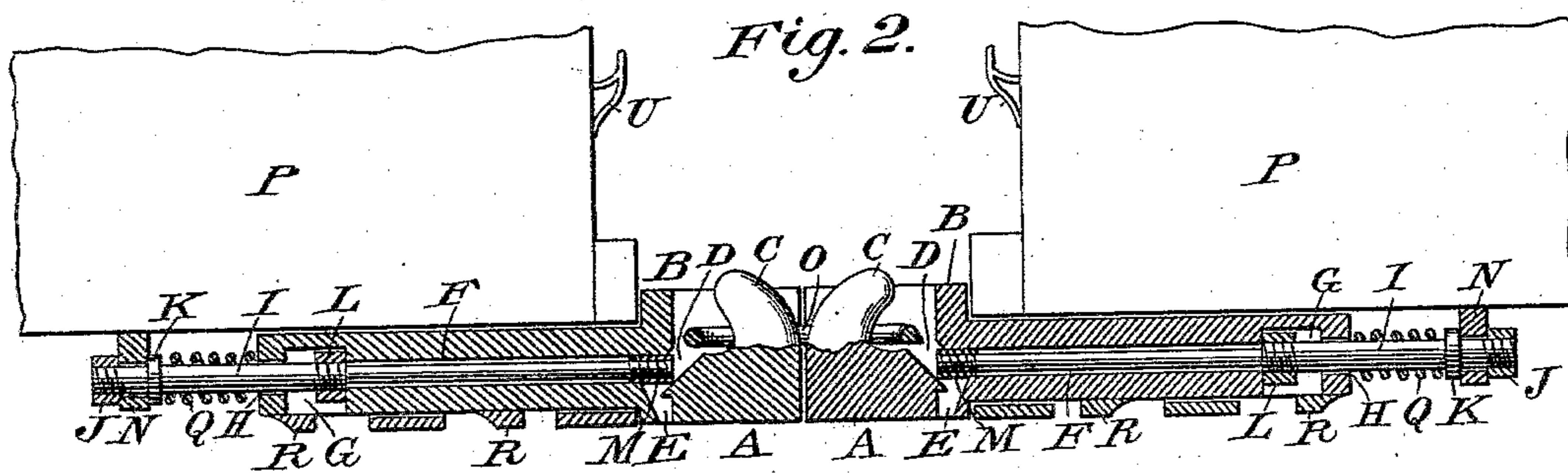
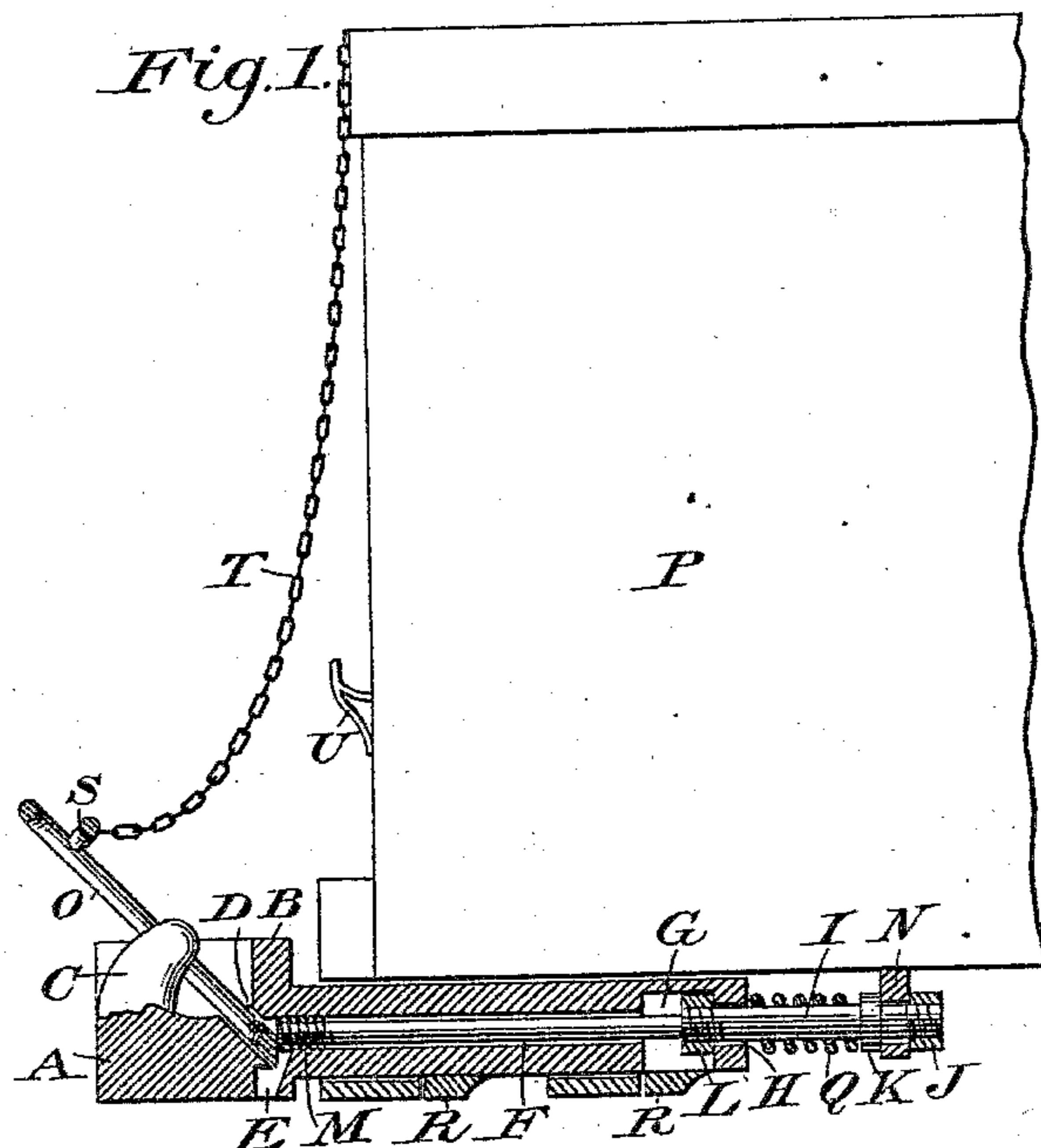
(No Model.)

S. H. WEEKS & J. J. HASENAUER.

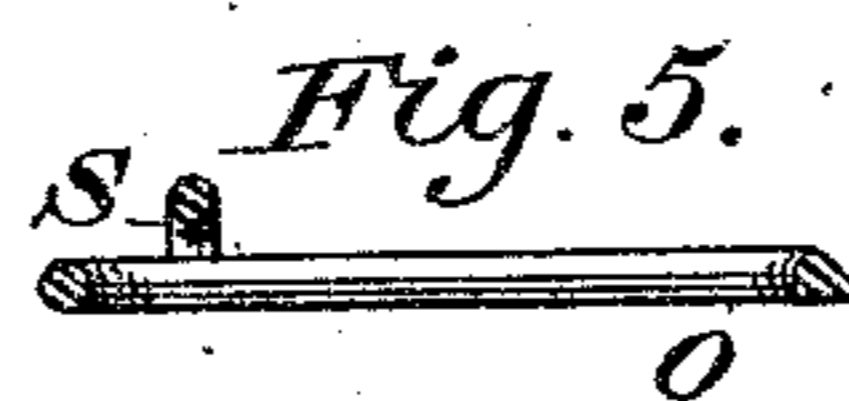
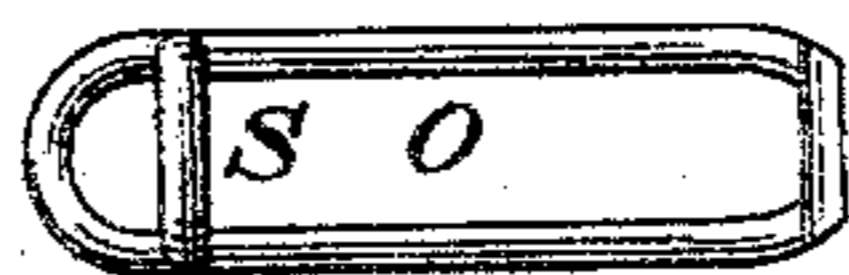
CAR COUPLING.

No. 301,651.

Patented July 8, 1884.



*Fig. 4.*



Witnesses:

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# UNITED STATES PATENT OFFICE.

SILAS H. WEEKS, OF RUSSELL, KENTUCKY, AND JOSEPH J. HASENAUER,  
OF IRONTON, OHIO.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 301,651, dated July 8, 1884.

Application filed January 18, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, SILAS H. WEEKS and JOSEPH J. HASENAUER, citizens of the United States, residing, respectively, at Russell, in the county of Greenup and State of Kentucky, and at Ironton, in the county of Lawrence and State of Ohio, have jointly invented a new and Improved Car-Coupling, of which the following is a specification.

Our invention relates to improvements in car-couplings in which links are employed in connection with draw-heads having sunken beds for the links to rest in and raised hooks for the links to hold by, and in which the draft is transmitted from the draw-head to the car through a tension-rod secured to an anchor-plate, and having a buffing-spring surrounding it; and the object of our invention is to provide a car-coupling which can be put in readiness for coupling when the cars are apart, and which will couple automatically when the draw-heads strike on bringing the cars together. We attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional elevation of the end of a box-car provided with our improved car-coupling, showing the link in position ready for coupling. Fig. 2 is a similar elevation of the ends of two flat cars, showing the link in the position of coupling. Fig. 3 is a horizontal section of a detached car-coupling, taken at mid-height of the draw-head. Fig. 4 is a front view of one of our coupling-links, and Fig. 5 is an edge view of the link in section.

A is the draw-head. B is the link-bed in the draw-head. C is the raised hook for coupling by. D is a sunken seat for holding the link in readiness for coupling. E is an opening in the bottom of link-seat D. F is a hole of square cross-section extending from link-seat D to a mortise-hole, G, of larger cross-section and open at bottom. H is a circular hole in the end of draw-head A for the tension-rod to pass through. I is the tension-rod. J is a nut screwed onto the end of rod I. L is another nut screwed onto the inner end of the stout part of rod I. M is also a nut screwed on the slender end of rod I. K

is a collar welded on rod I. N is an anchor-plate secured to the car, and having a hole through it for rod I to pass through. O is the coupling-link. P is the car. Q is a buffing-spring. R is a cleat on bottom of draw-head A. S is a handle on the back of link O. T is a chain for fastening link O to the top of a box-car. U is a bracket on the car to hold link O when not in use.

The draw-head A is cast all together. The link-bed B is made with its outer ends spread apart and rounded to allow the link some lateral play without straining it, and its bottom is hollowed out in front of hook C and at the outer ends of the bed to allow the link to adjust itself to differences of level between the cars it is coupling. Hook C is rounded and freed from corners to allow link O to pass over it easily, and it is undercut to give the link a good hold. Seat D is made with slanting top and bottom, and of the size and shape of the end of link O, so that it will hold link O, when placed in it, out over hook C at an angle of about forty-five degrees. The opening E is made in the bottom of link-seat D to allow dust and dirt to fall through and not fill up the seat. Hole F is made of square cross-section, so that nut M, which is also of square cross-section and of nearly the same diameter, cannot turn in it. The hole G is made of larger diameter than hole F, so that the large nut L cannot pass into hole F. It is also made of square cross-section, so that nut L, which is also square and of nearly the same diameter, cannot turn in it. It is made as long as nut L and link-seat D, so that when nut L is at its inner end nut M will be at the inner end of link-seat D, and when nut L is at its other end nut M will be at the outer end of link-seat D. It is made open at bottom, so that nut M can be passed through it into hole F, and nut L can be put into it when putting the parts together. Rod I is made of wrought-iron or steel, the tension part from J to L being of about an inch and a half in diameter, and the extension part from L to M being of about an inch in diameter, so that the extension part can be easily introduced into hole F. The collar K is welded on near the end of rod I, leaving enough rod to pass through plate N and nut J. Screw-

threads are cut on rod I, to receive the screw-nuts J L M, the nuts J and L being on the ends of the stout tension part and nut M being on the slender end. Spring Q is of any kind in common use, and is fixed on rod I in the usual way. Plate N is of the usual construction, and both it and the draw-head are fastened on the cars in the usual way. Link O has one end straight and beveled to fit seat D, and has a handle, S, formed on its back.

To put the parts of this coupling together, put rod I through spring Q until the spring rests on collar K. Then put nut M through hole G into hole F, and hold nut L inside hole G opposite hole H. Then put the slender end of rod I through hole H and nut L and enter nut M, so as to catch the screw. Then shove rod I and nut M into hole F until the screw-thread on the inner end of the stout part enters nut L. Then, by turning rod I, screw on nuts L and M until each is flush with the end of the part it is on. Then pass the outer end of rod I through the hole in plate N, and secure plate N and draw-head A to the car. Then screw on nut J, and the coupling is together, ready for use. When the coupling is all together and ready for use, spring Q, resting against collar K and plate N, presses draw-head A out until its end is caught and held by nut L. Then nut M is in hole F, as shown in Fig. 1; and to prepare for coupling, link O is placed in seat D, as shown also in Fig. 1, where it held out over hook C at an angle of about forty-five degrees.

To couple two cars together, they are brought together so that their draw-heads strike, when the buffing-spring Q is compressed, the draw-head A is forced in upon rod I, so that nut M is forced into seat D, and link O is projected out of the seat, so that it falls over hooks C C, Fig. 2, and so couples the cars. To uncouple two cars from a flat car, link O is grasped by

handle S and is lifted off the hooks C and C by hand; but to uncouple box-cars, the link O is drawn off the hooks C C by means of a chain, T, fastened to the top of the car. In neither case is it necessary to go between the cars either to couple or to uncouple them. The link belonging to the coupling is hung upon a bracket, U, on the end of the car when not in use.

Draw-heads with sunken link-beds and raised coupling-hooks have long been in use in combination with tension-rods, anchor-plates, and buffing-springs. We therefore do not claim them or their combinations, broadly, as our invention; but

We do claim as our invention and desire to secure by Letters Patent—

1. The improved draw-head A, having its link-bed B, its coupling-hook C, link-seat D, opening E, and holes F and G, formed, constructed, and arranged in the manner and for the purposes herein substantially specified.

2. The improved tension-rod I, having the extension part from L to M, and provided with the collar K and nuts J, L, and M, when it and its parts are formed, constructed, and arranged in the manner and for the purpose herein substantially specified.

3. The improved draw-head A, in combination with the improved tension-rod I, having collar K and nuts J, L, and M, and the anchor-plate N, buffing-spring Q, and link O, when all are constructed and combined in the manner and for the purpose herein substantially specified.

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