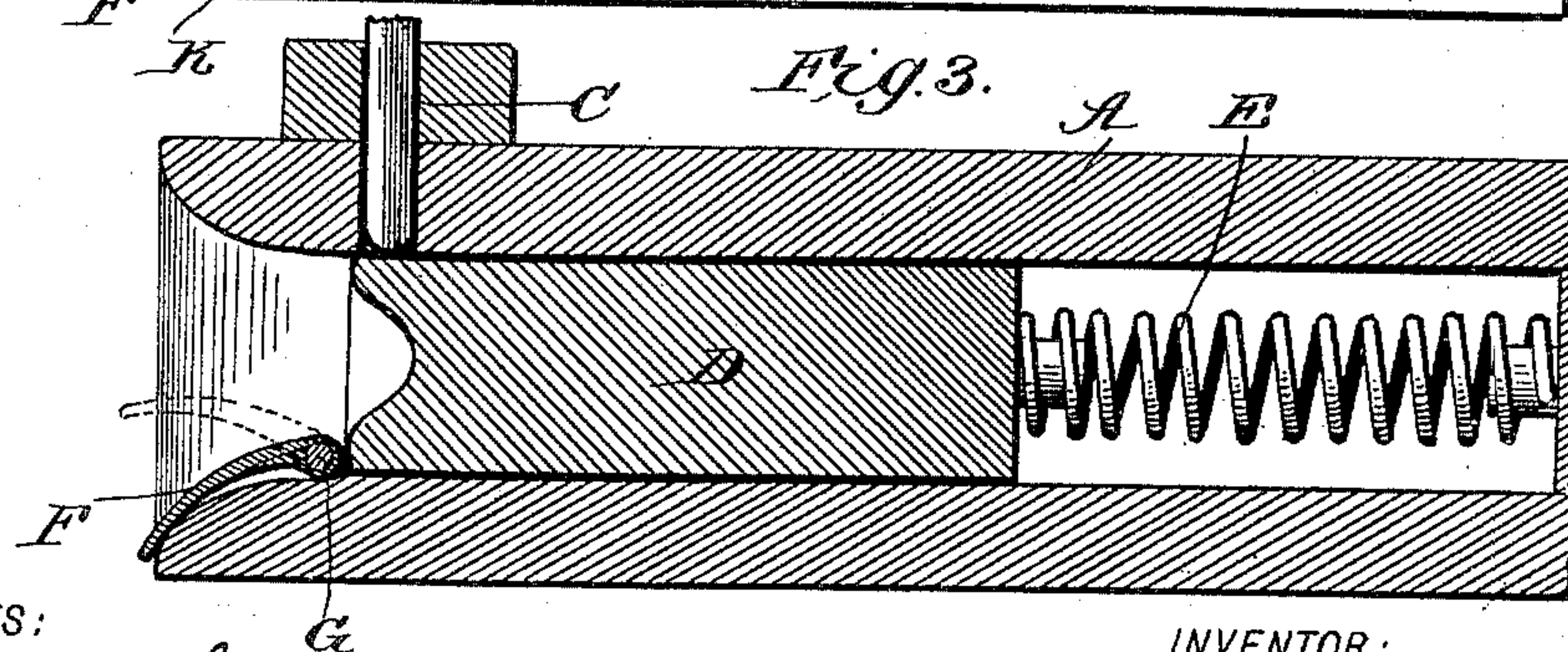
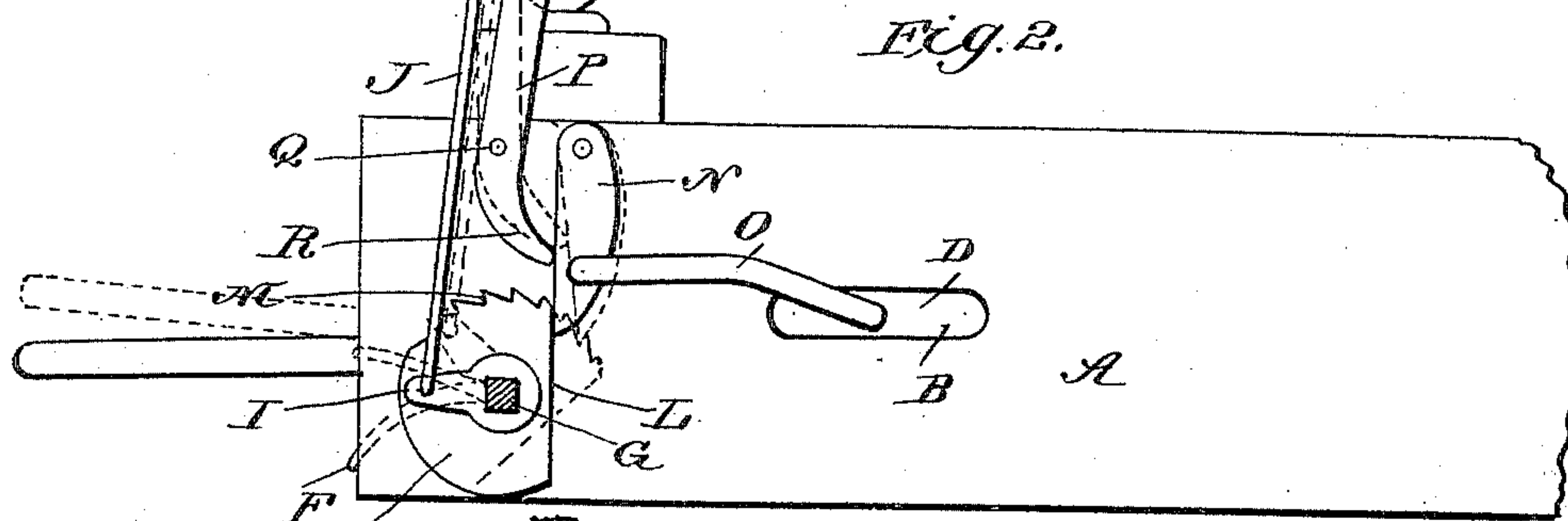
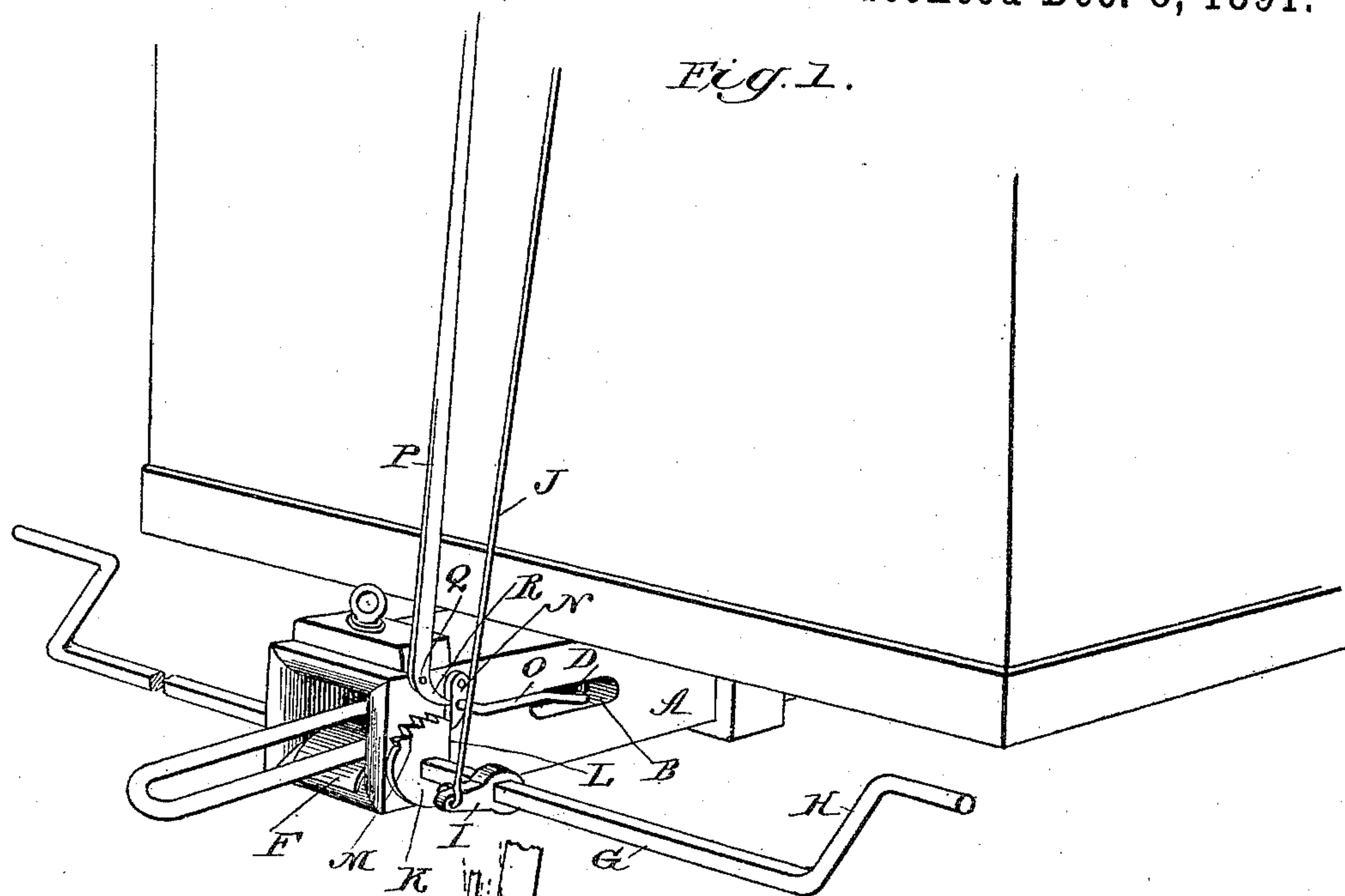


(No Model.)

J. H. SWEENEY.
CAR COUPLING.

No. 464,836.

Patented Dec. 8, 1891.



WITNESSES:

Fred G. Dieterich
P. B. Turpin.

INVENTOR:

James H. Sweeney.

BY

Wm. L.

ATTORNEYS

UNITED STATES PATENT OFFICE.

JAMES HENRY SWEENEY, OF FRANKLIN, TENNESSEE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 464,836, dated December 8, 1891.

Application filed April 6, 1891. Serial No. 387,900. (No model.)

To all whom it may concern:

Be it known that I, JAMES HENRY SWEENEY, of Franklin, in the county of Williamson and State of Tennessee, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention is an improvement in car-couplers; and it consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of one end of a car provided with my improved coupler. Fig. 2 is a side view of the draw-head and improvements, the link-lifter being shown down in full lines and elevated in dotted lines. Fig. 3 is a vertical longitudinal section.

The draw-head A may be of the usual shape, except in the particular hereinafter described. I provide the draw-head with a slot B in one side and with a pin-hole C, the latter being prolonged by thickening the draw-head surrounding such hole to better guide the coupling-pin in its vertical movements.

A block D is arranged and movable longitudinally in the draw-head and projects when in its foremost position below the pin-hole C. In such position the block operates as a pin-support and serves to hold the pin elevated. A spring E, bearing in rear of the block D, forces the same forward and tends to hold it normally in position to support the pin and at the same time permits the block to be pressed back by the entering link to permit the pin to fall through and secure the said link, as will be readily understood. It will also be seen that when the pin is lifted the block will move forward below and in position to support the pin. At the lower side of the mouth of the draw-head I provide the link-lifter plate F, provided at its rear edge with a rock-shaft G, with journals in the draw-head. This shaft extends laterally beyond the draw-head and about the side of the car, and is provided at its outer ends with crank-handles H, by which it may be turned to raise the lifter proper. Said shaft extends through the draw-head and about the side of the car, so as to permit the link-lifter and ratchet to be worked from both sides of the car. I also provide the shaft G with a short crank-arm

I, connected with a rod J, which leads to the top of the car, so that the link may be raised or lowered from the top of the car. On the shaft G, close to the side of the draw-head, I provide the wheel segment or plate K, which is formed with the straight shoulder or edge L and with the ratchet-teeth M. A pawl N is provided to operate in connection with the said plate K, being arranged to engage the edge L when the link-lifter is lowered and to engage the teeth M as the lifter is turned to elevate the link. By engaging and pressing against the edge L the pawl operates to hold the link-lifter down, while its engagement with the teeth M operates to secure the lifter in any degree of elevation to which it may be adjusted. This pawl is connected by a rod or bar O with the spring-pressed pin-supporting block in such manner that when the said block is in its foremost position the pawl will be held firmly to its place in engagement with the edge L or the teeth M, the spring which actuates the pin-support being thus arranged to also actuate the pawl. It will also be seen that if a link be held in a draw-head and be held elevated by the link-lifter of such draw-head the pawl will engage the teeth M and hold the link-lifter in the desired position. If such draw-head and link be bumped by a meeting draw-head, the link will push the supporting-block back, and this movement will release the pawl from teeth M and the link-lifter will fall by gravity to its normal position against the base wall of the mouth of the draw-head.

In order to release the pawl from the teeth M whenever desired, I provide the lever P, pivoted at Q, extended at one end to the top of the car and provided with a part or portion R, arranged to engage the pawl, so that the lever P may be operated to move the pawl out of engagement with the ratchet-teeth when so desired. Manifestly straight or bent links may be used, if desired. It will be seen that by means of the link-lifter draw-heads of different heights may be conveniently coupled, that by connecting the pawl and pin-supporting block the backward movement of the said block operates to release the pawl from the ratchet-teeth, and by means of the devices, as shown and described, the pawl can be released and the link-lifter can be operated

from the top of the car, as well as by the crank-handles from either side of the car, while on the ground.

Having thus described my invention, what I claim as new is—

1. In a car-coupling, the combination of the draw-head, pin-support link-lifter having its shaft provided with a toothed wheel segment or plate, a pawl arranged to engage the teeth of said segment or plate, and a connection between said pawl and pin-support, whereby the movement of said support may operate to move the pawl, substantially as set forth.

2. In a car-coupling, the combination of the draw-head having a slot B, the pin-support, the link-lifter having its shaft provided with a toothed segment or plate, the pawl engaging said plate, and the rod connected at one end with the pawl and projected at its other end through slot B and connected with the pin-support, substantially as set forth.

3. The combination of the draw-head, the link-lifter having its shaft provided with a segment or plate K, having teeth M and edge or shoulder L, and the pawl arranged to engage said edge and teeth, substantially as set forth.

4. In a car-coupling, the combination of the draw-head, the link-lifter having a toothed

wheel segment or plate, the pawl arranged to engage said plate, and the lever by which to move the pawl out of engagement with said plate, substantially as set forth.

5. In a car-coupling, the combination of the draw-head, the spring-actuated pin-support, the link-lifter provided with the toothed wheel segment or plate, the pawl engaging said segment or plate, a rod connecting the pawl with the pin-support, and the lever having a portion by which to engage said pawl, whereby to free it from engagement with the segment or plate, all substantially as and for the purposes set forth.

6. The improved car-coupling herein described, consisting of the draw-head, the pin-support, the link-lifter having a toothed plate K; provided with an edge L and teeth M, the pawl N, engaging said plate, the rod O, connecting such pawl with the pin-support, the lever P, having a portion R, arranged to engage the pawl, the crank-arm I, connected with the link-lifter shaft, and the rod J, jointed to said arm and extended upward, substantially as set forth.

JAMES HENRY SWEENEY.

Witnesses:

C. R. BERRY,
E. M. HEARN.