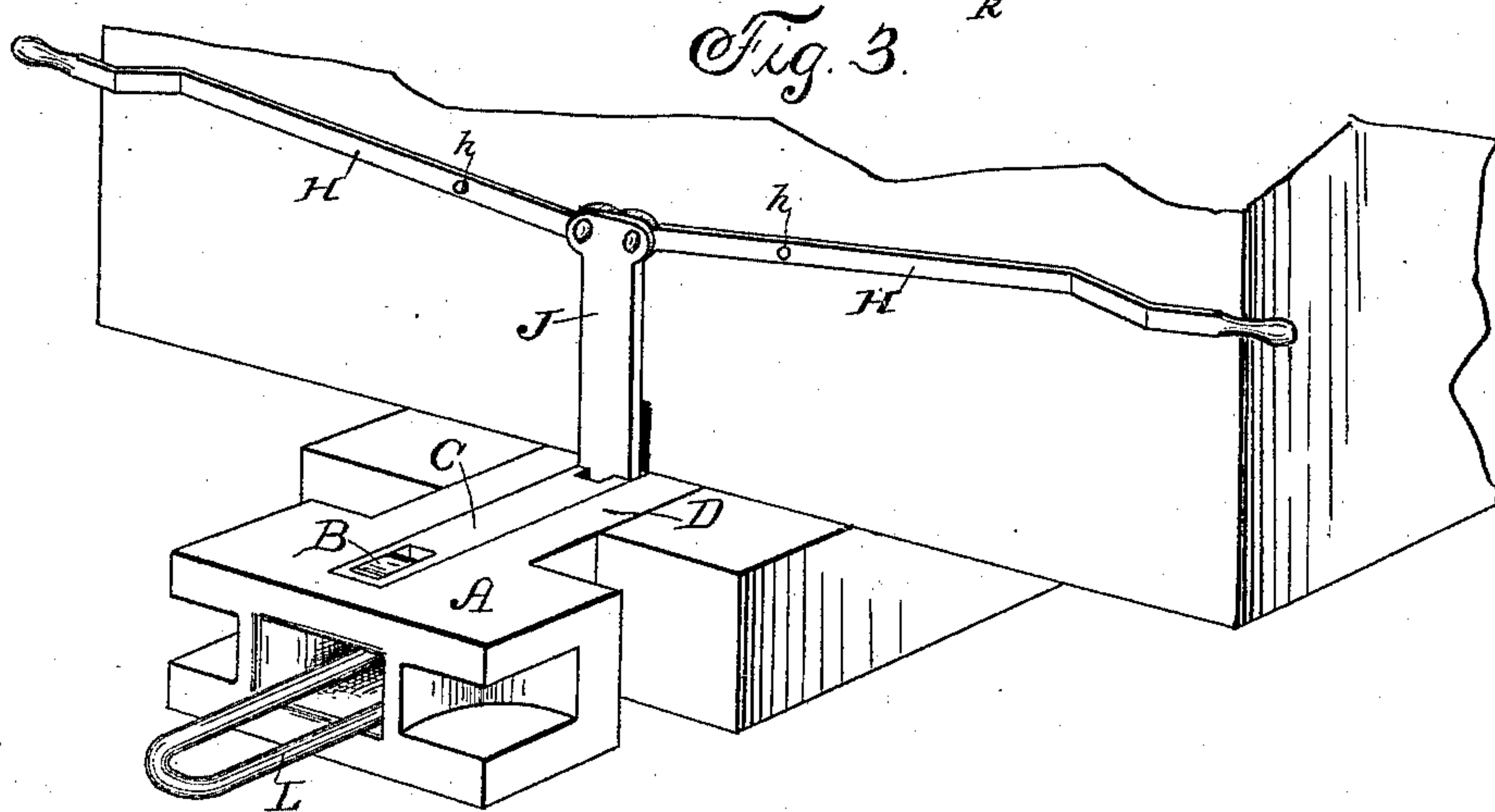
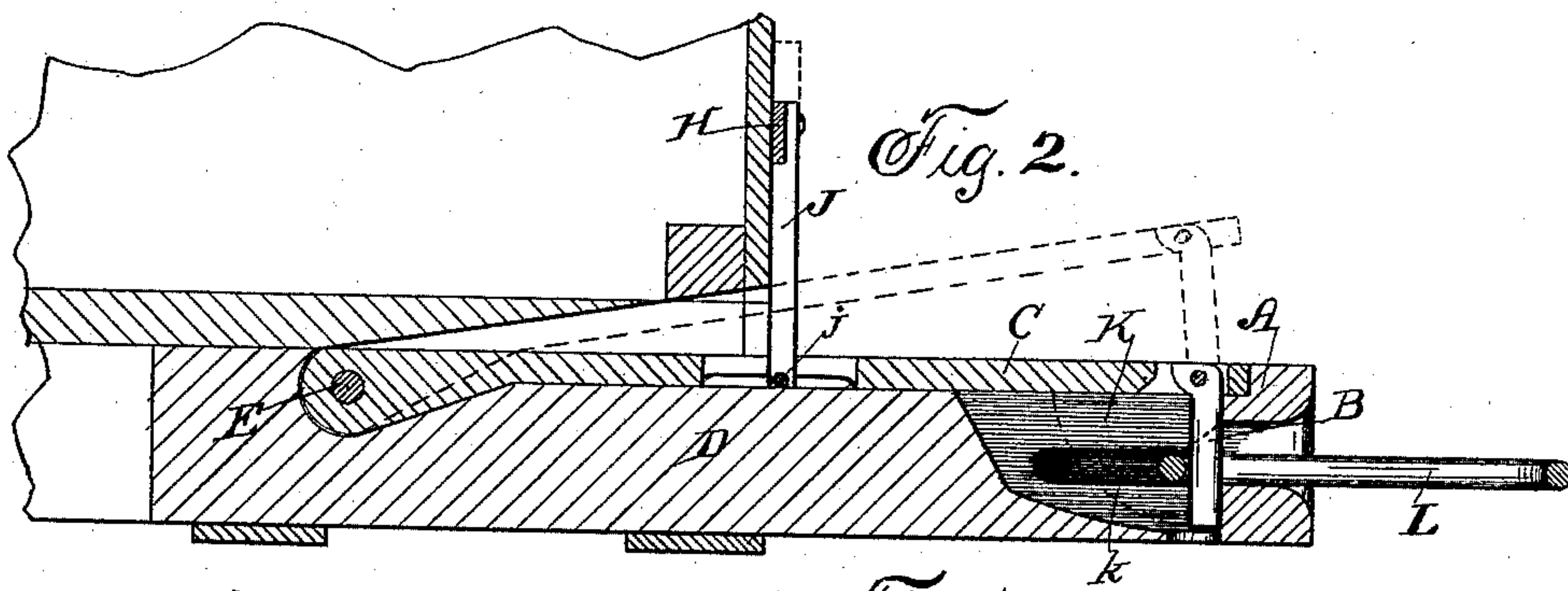
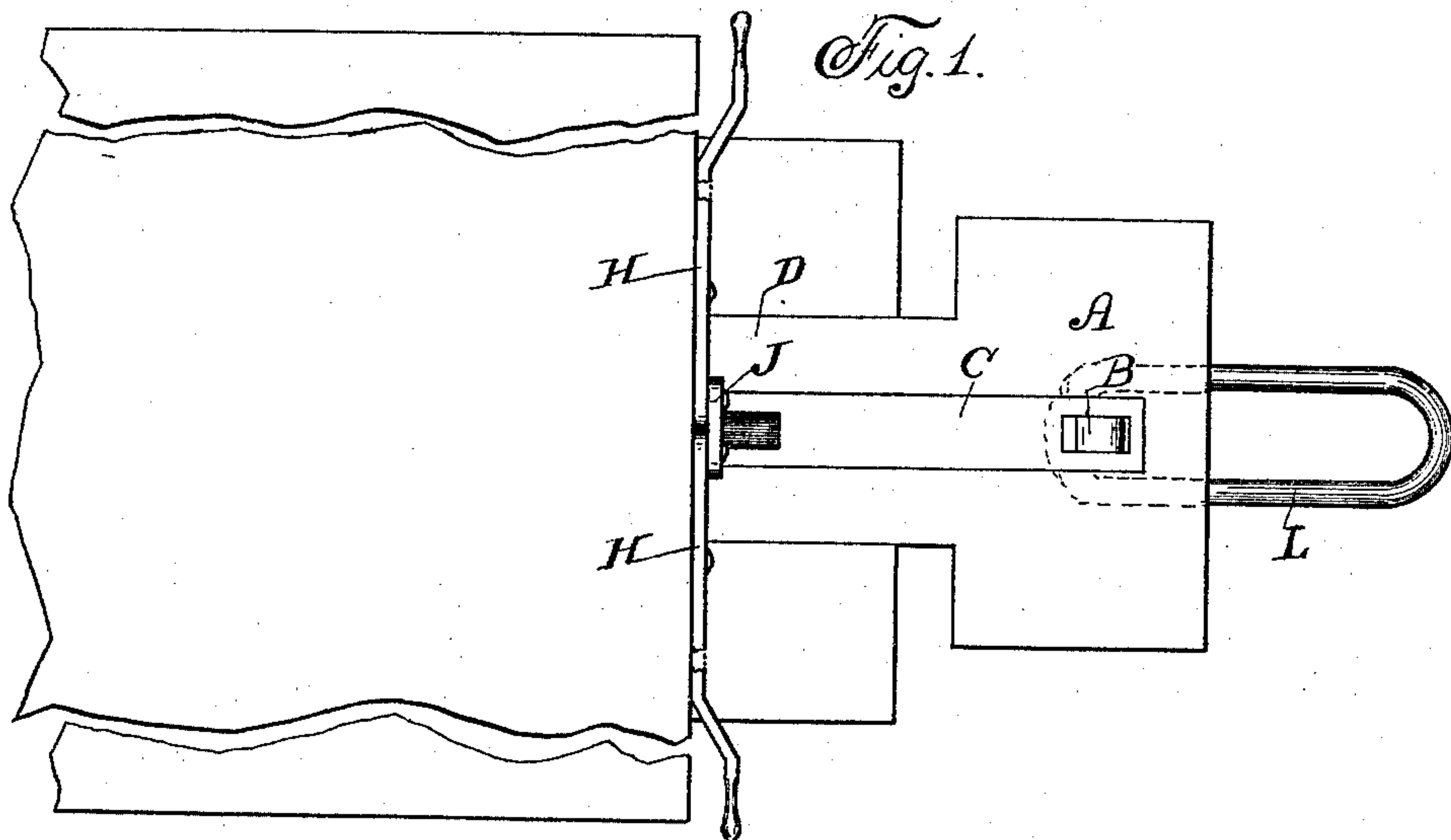


(No Model.)

T. McK. STUART.
CAR COUPLING.

No. 445,576.

Patented Feb. 3, 1891.



Witnesses:

M. P. Smith.

Charles C. Buckley.

Inventor:

Thomas McK. Stuart,
By Thomas G. Orrig, att'y.

UNITED STATES PATENT OFFICE.

THOMAS MCK. STUART, OF CORNING, IOWA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 445,576, dated February 3, 1891.

Application filed June 5, 1890. Serial No. 354,405. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MCK. STUART, a citizen of the United States of America, residing at Corning, in the county of Adams and State of Iowa, have invented a new and useful Improved Automatic Car-Coupling, of which the following is a specification.

My invention has for its object the provision of means by which the cars of a railway-train may readily be coupled or uncoupled by the train or yard man from a point out of danger, and in means by which the draw-bar is permitted longitudinal play and the link held in a horizontal plane in position for coupling.

My invention consists in a draw-head the top portion of which is slotted, and a rod to the outer end of which is pivoted the coupling-pin, its inner end bearing against the draw-bar, the latter being slotted on its top portion to receive the rod. The interior of the draw-head is so formed with projections, cheeks, or walls providing a vertical recess, said walls having longitudinal grooves in each of its sides and a bell-shaped mouth extending to the point of entrance of the link intersected by the grooves, which consequently extend immediately from the rear of the bell-shaped mouth, so as to hold the link horizontally in position for coupling.

My invention consists, further, in certain details of construction, hereinafter more fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view of my improved coupling. Fig. 2 is a sectional view on the line $x x$, Fig. 1. Fig. 3 is a perspective view showing the relative position of my coupling with respect to a car.

A represents the draw-head, the top of which is slotted to admit the gravity coupling-pin B, which latter is pivoted to the outer end of the bar C, said bar extending rearwardly along the upper face of the draw-bar D, the latter being recessed or countersunk to receive the bar C, the inner remaining end of which is pivoted at E within the enlarged portion of the recess of the draw-bar D.

H H are horizontally-extending actuated rods pivoted at h to the car, and at their inner ends pivotally connected to the upper end

of a vertical connecting-rod, the lower end of the latter in turn passing through a slot in the bar C, being held in place by a pin j in the end of the rod J and underneath the said bar C, the end of the rod J by this means in nowise confining the draw-bar in its play, and yet holding the former in connection, so as to raise said bar on its pivot E when it is desired to effect an uncoupling. The interior of the draw-bar is formed with faces or cheeks K, which provide a longitudinal rearwardly-extending recess k , within which the link L is adapted to be held in a horizontal position, the gravity-pin describing the arc between said cheeks K.

The operation of my improved car-coupling is as follows: When cars are to be coupled, the link is held in a horizontal position within the draw-head of one of the cars in the recess k , formed by the cheeks K, the pin of the approaching car being in its normal vertical position. The link striking the pin causes the lower end of the latter to describe an arc, (shown by the dotted lines in Fig. 2,) which, when the link passes within the recess k , falls by gravity into its normal vertical position within the link, coupling the cars. When it is desired to uncouple, the operator from a position of safety actuates the rod H, raising the coupling-pin in a vertical plane, disengaging the link. The draw-bar is free to move in the direction of its length by means of the slot in the bar C. By the formation of the grooves so that they extend rearwardly immediately from the pin and the bell-shaped mouth ending at the pin the link will be securely held in the grooves in the desired horizontal position, since so soon as the link passes the point of entrance of the pin it will engage in the grooves and be held against all liability to slip out of position.

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

1. In a car-coupling, the combination of a draw-head having cheeks or faces within the interior thereof which form a recess for holding a link, a swinging gravity-pin pivoted to the outer end of a slotted bar pivoted within the draw-bar at the rear end, and a pivoted horizontal hand-actuated rod and connecting-

lever, the latter passing downwardly through the slot of the pivoted bar loosely connected thereto, as and for the purposes stated.

2. In a car-coupling, a bar pivoted to the
5 top of a sliding draw-bar to extend forward over the roof of the link-cavity to carry a coupling-pin pivoted to its front end, and a bar or rod the end of which passes through a slot in the said pivoted link-carrying bar and
10 having a confining-pin fixed to its lower end for the purpose of lifting the bar and pin, as and for the purposes set forth.

3. A draw-head having a bell-shaped opening in its front face, a vertical pin-hole inter-

secting the rear end of said opening and ex- 15
tending down through the draw-head, a vertical slot extending rearward from said pin-hole, and mating slots or grooves in the parallel side faces produced by the said vertical slot, said grooves intersecting the rear end of 20
the bell shaped opening in front of said pin-hole, substantially as shown and described, for the purposes stated.

THOMAS MCK. STUART.

Witnesses:

D. S. SIGLER,
CHAS. T. COLE.