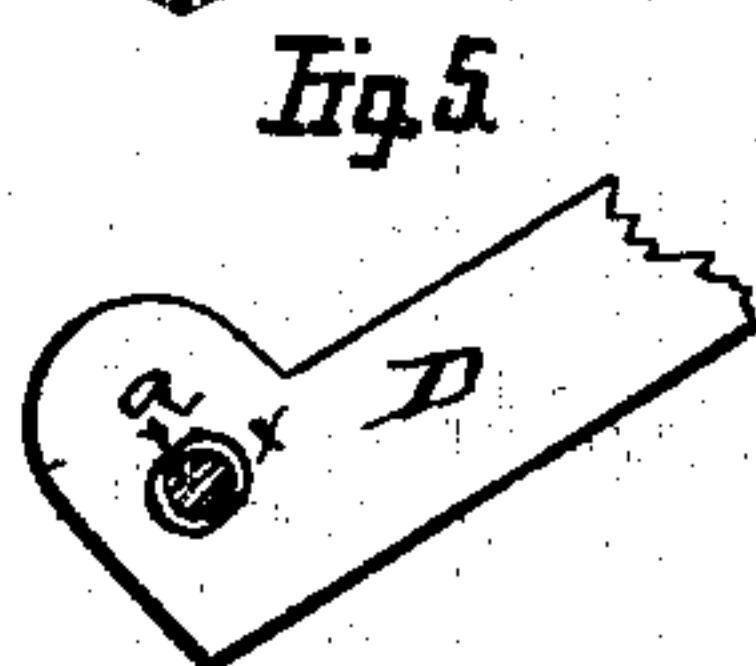
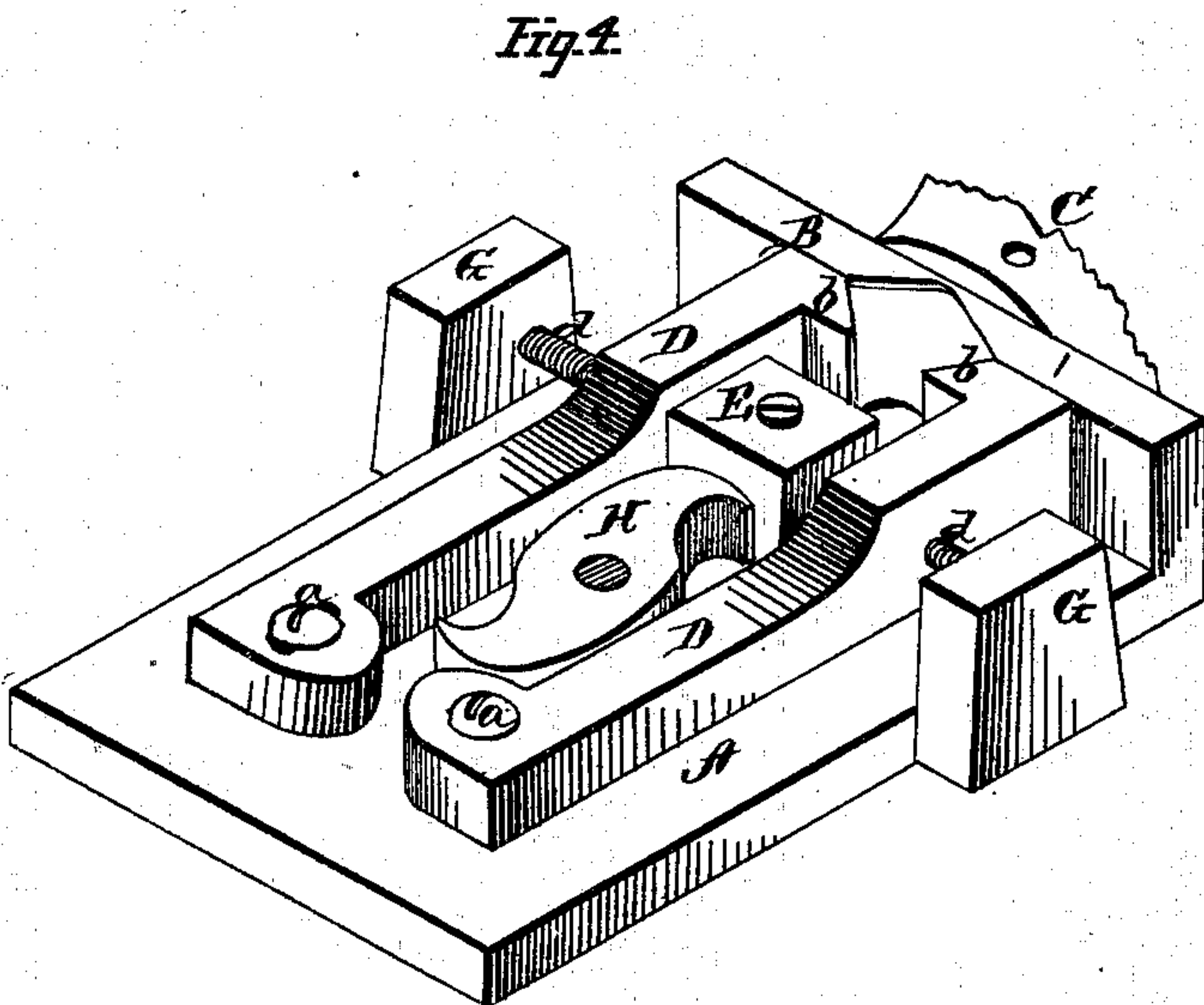
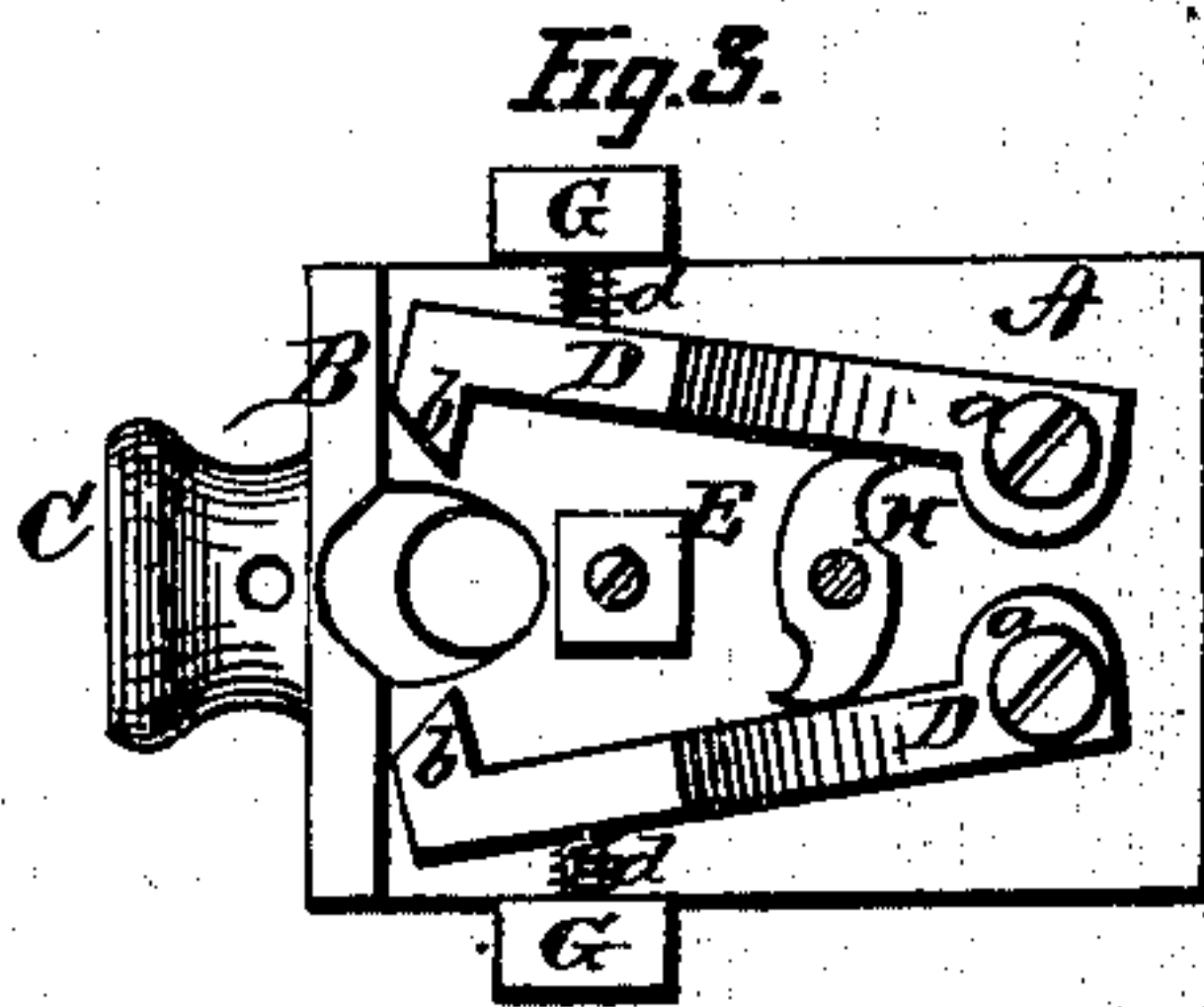
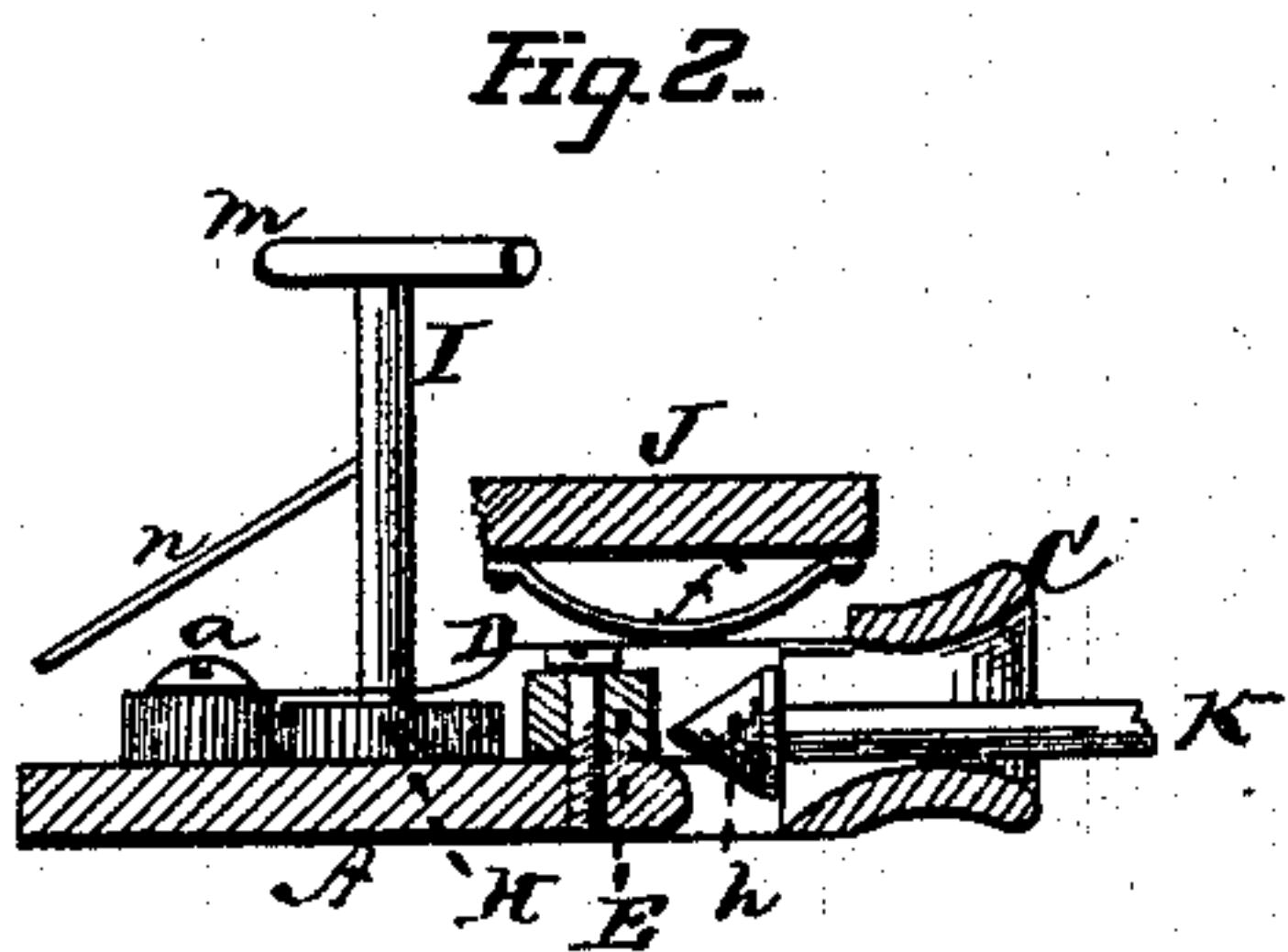
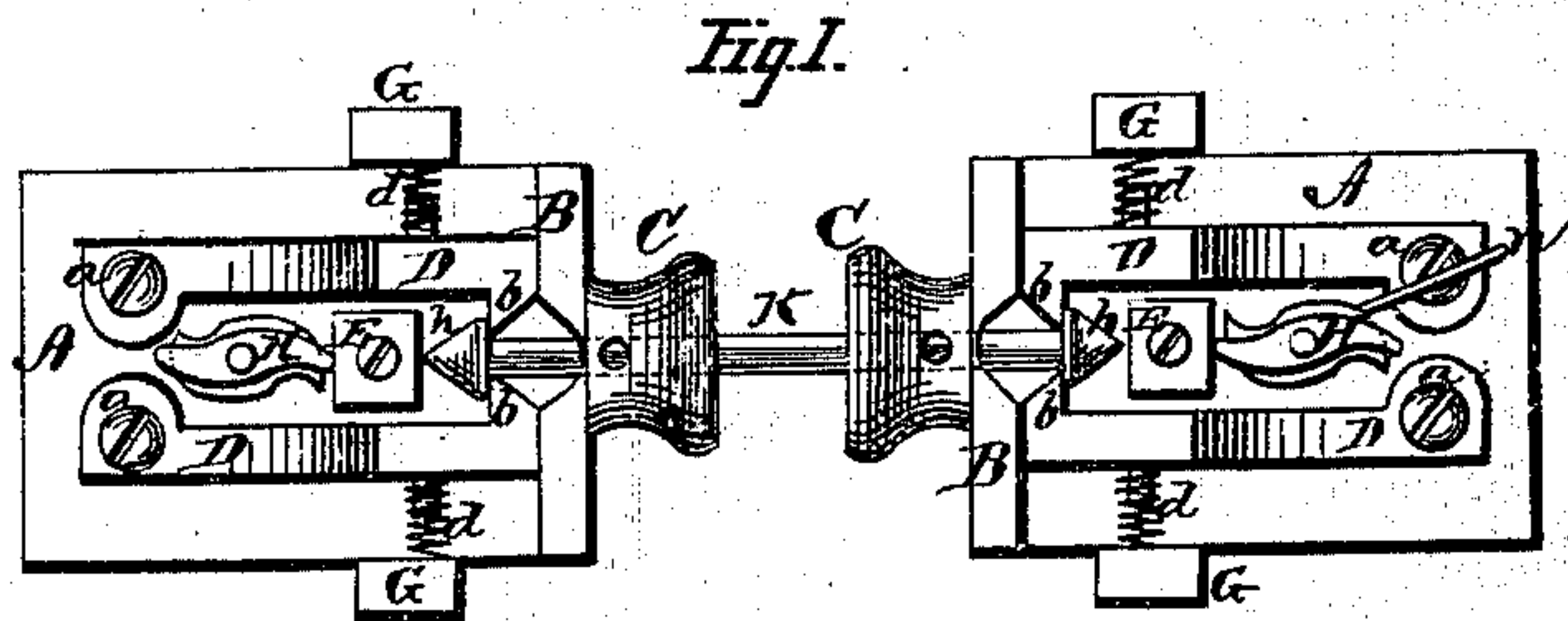


E. WILEY.
Car-Couplings.

No. 139,221

Patented May 20, 1873.



Witness:
Jas. C. Hutchinson
C. L. Ewert.

Inventor.
Eugene Wiley.
per *Handi. Mason*
Attorneys.

UNITED STATES PATENT OFFICE.

EUGENE WILEY, OF PHILADELPHIA, PA., ASSIGNOR OF TWO-THIRDS HIS RIGHT TO C. D. ALEXANDER AND E. R. WINSHIP, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 139,221, dated May 20, 1873; application filed January 24, 1873.

To all whom it may concern:

Be it known that I, EUGENE WILEY, of Philadelphia, in the county of Philadelphia and in the State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a car-coupling, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view of my car-coupling. Fig. 2 is a longitudinal vertical section of one of the draw-heads. Fig. 3 is a plan view of the same, showing the jaws open. Fig. 4 is an enlarged perspective view of the same, showing the jaws closed. Fig. 5 represents a plan view of the inner end of one of the levers.

A represents the front end of the draw-bar, having at its extreme front end an upward-projecting bar or flange, B, and on the outer side thereof is formed or attached the circular or cup-shaped mouth C. D D represent two levers, pivoted at their rear ends by screws *a a* to the draw-bar A, and their front ends forming inward-projecting hooks *b b*, the outer sides of which are beveled, as shown. The hooks or jaws *b b* are pressed inward toward each other by a spring, *d*, acting on the back or outer side of each lever D, and the outer end of each spring fitting in a recess on an ear, G, extending upward from the side of the draw-bar A. Between the levers D D, a suitable distance from the front end, is secured a rubber block, E, against which the head of the coupling-bar may strike when coupling the cars. In rear of this block is a double cam, H, attached to an upright shaft, I, which cam, when the shaft is turned, spreads the jaws apart to uncouple the cars. The shaft I is on its upper end provided with the usual hand wheel or lever *m*, and also with an arm, *n*, extending outward to one side, so that the cars may be uncoupled from the side. J repre-

sents a part of the car-platform, on the under side of which is secured a spring, *f*, to bear on the upper surface of each lever D to prevent the same from springing upward. K represents the coupling-bar, which consists simply of a round bar with a conical head, *h*, at each end, the base of said head being of larger diameter than that of the bar, so as to form a shoulder around the bar at each end to catch on the hooks *b b*.

As the coupling-bar enters the draw-head, the head pressing against the beveled sides of the hooks or jaws *b b*, forcing them apart, and as soon as the head has passed the same, the springs *d d* throw the jaws inward again, which couples the cars, the rubber blocks E forming bumpers to lessen the shock.

It will be seen that the ends of the levers D D, when the jaws are closed, bear against the inside of the bar or flange B, thereby relieving the strain on the pivot-screws, and making the coupling more strong and secure.

It will be understood that my car-coupling requires no top, and that the operative parts are secured to a flat metal plate, A, the levers which grasp the link being arranged to move laterally on the bed-plate. By this construction I obviate the necessity of forming a heavy metal box to completely inclose the parts, as the bottom of the platform can form a top for the coupler.

Much metal and cost of manufacture are thus saved, and, in case of breakage or disorder, the repairs can be more easily and cheaply made than if inclosed in a box. Further, by causing the jaws to move laterally each way from the link-head, they will both perform their function of grasping the link in a more uniform manner than if placed to operate at right angles to the position in which they now move. To allow the fronts of the jaws to bear against the flange B, it will be understood that their pivot-holes should be slightly larger than the pivots *a a* by which they are secured.

The draw-head has a hole through it, so that, if desired, the ordinary pin and link may be used.

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

1. The hooked levers D D with elongated

pivot-holes *x x*, and secured to the plate A by the pivots *a a*, so that their front ends *b b* will bear against the flange B to relieve the strain on the pivots, substantially as herein set forth.

2. The combination, with the bed-plate A, ears G G, flange B, and bumper C, of the laterally-operating hooked bars D D, pivoted as set forth, with their front ends fitting snugly against the flange B, the block E,

springs *d d*, and cam H, all constructed substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of January, 1873.

EUGENE WILEY.

Witnesses:

A. N. MARR,

C. L. EVERT.