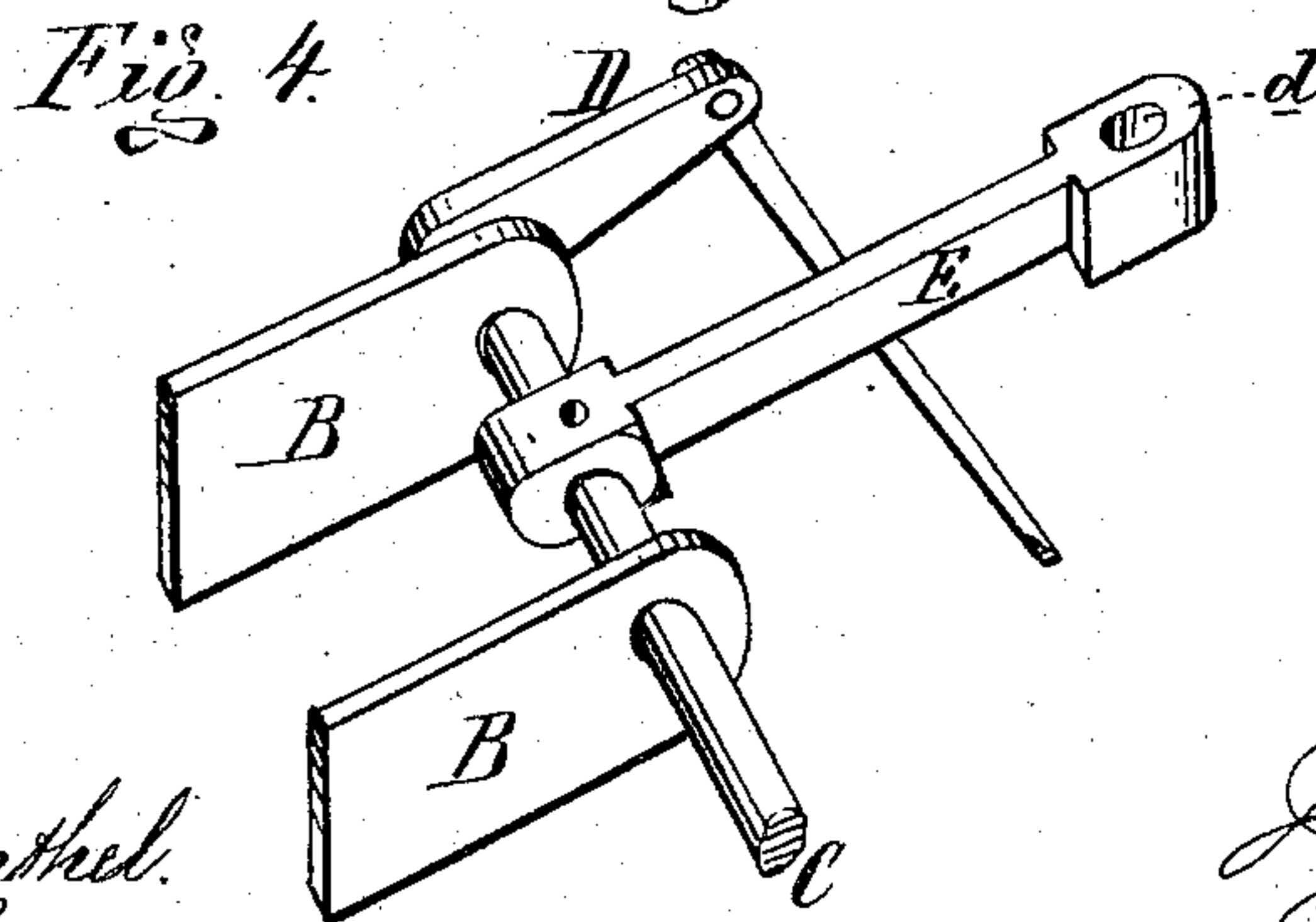
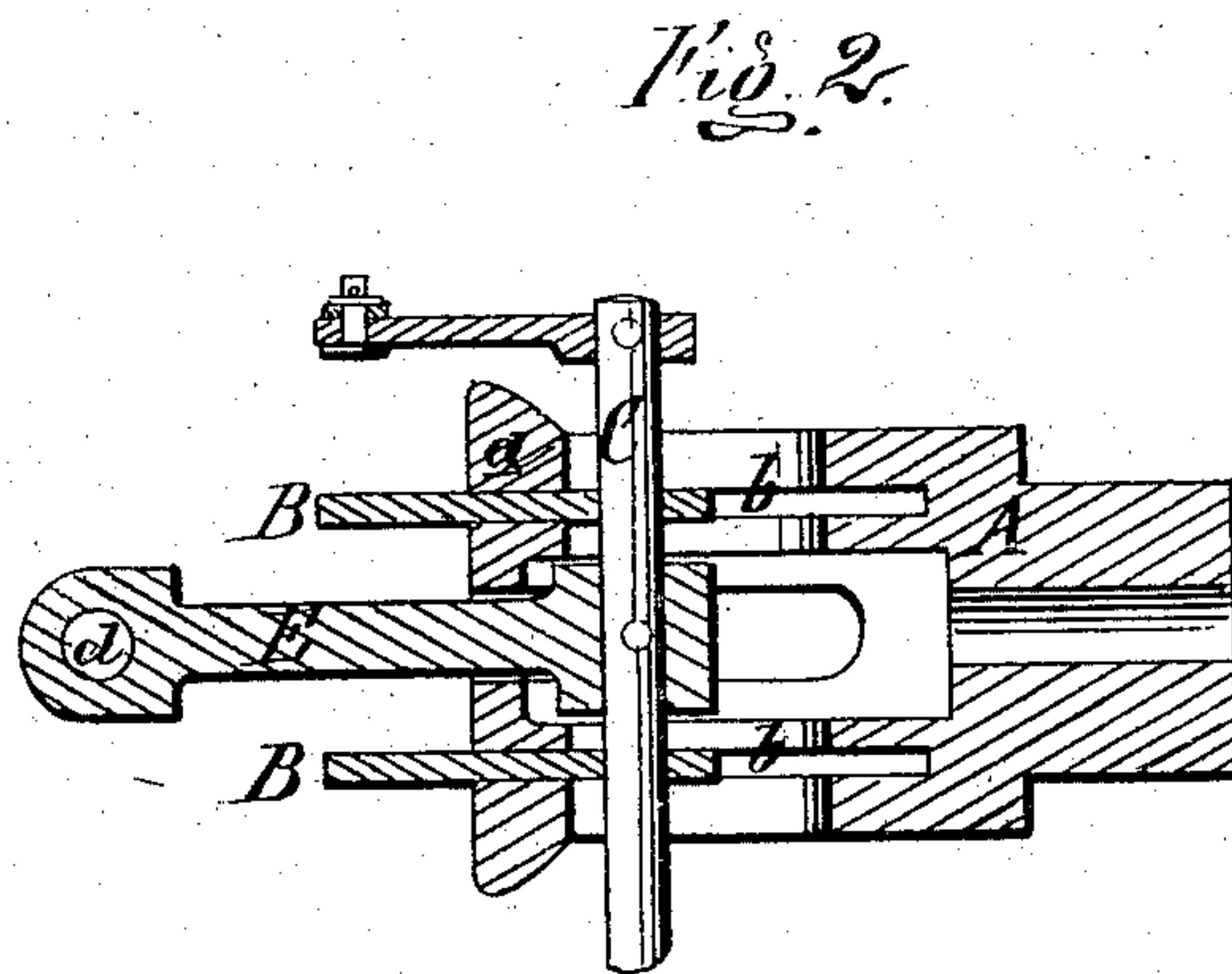
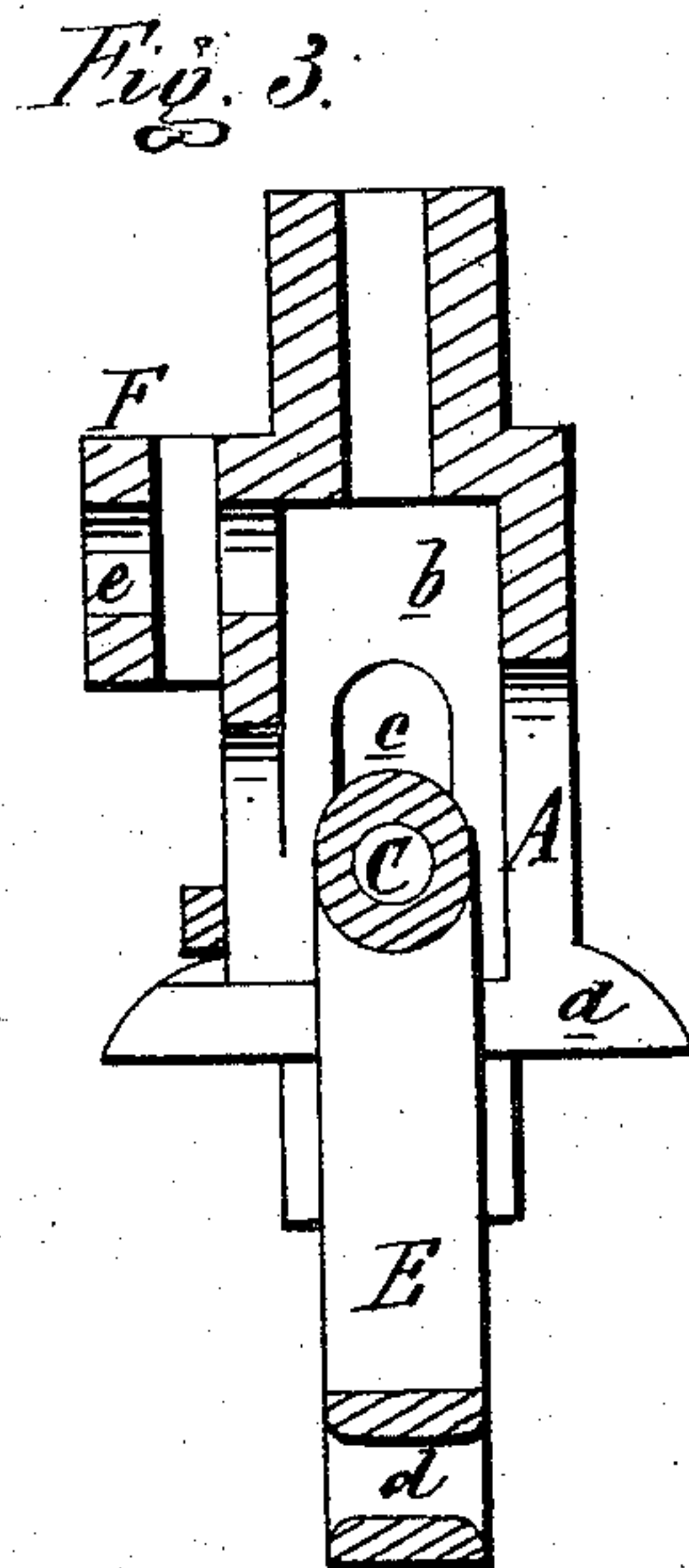
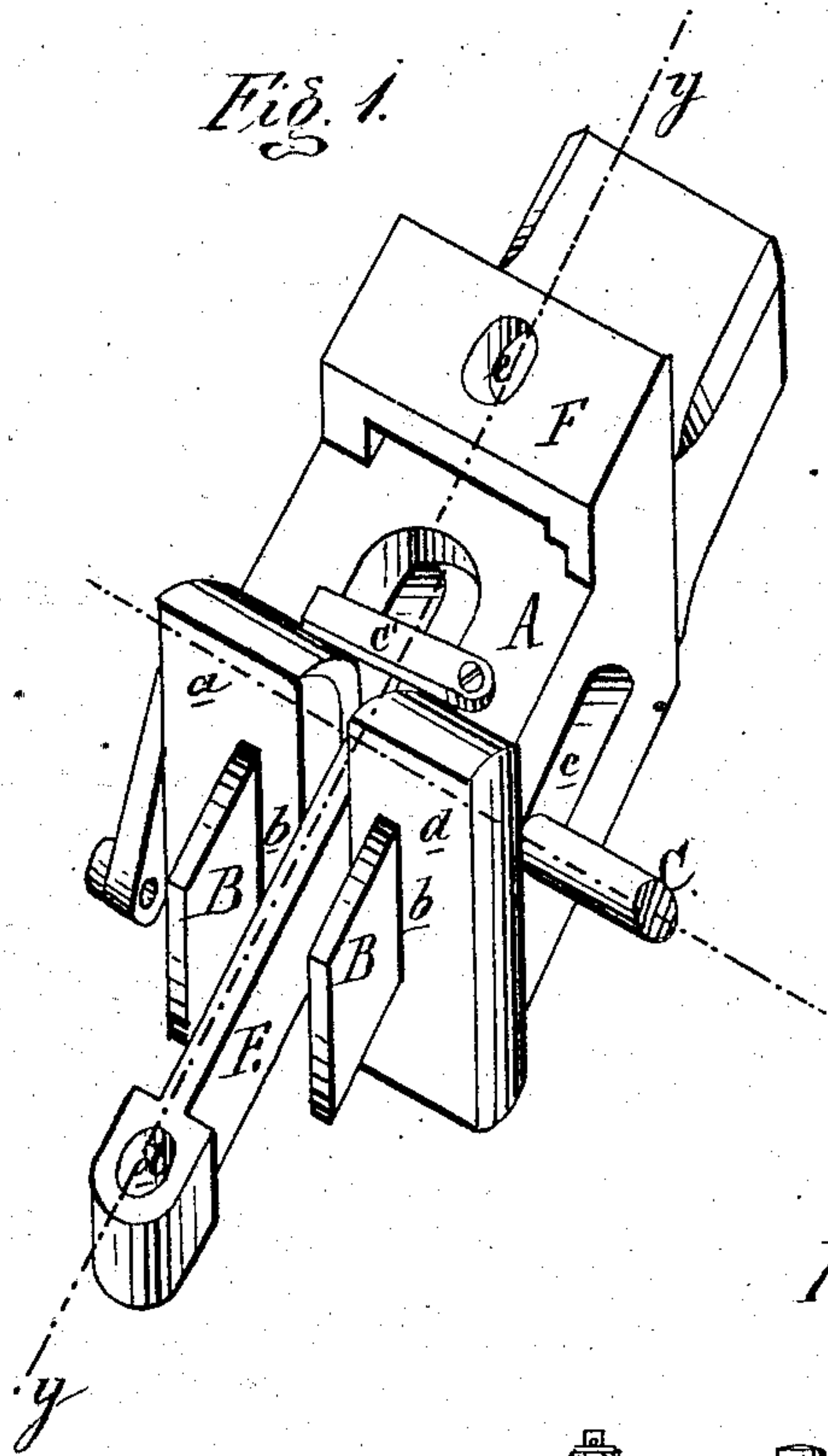


J. GRAHAM.  
Car-Coupling.

No. 159,407.

Patented Feb. 2, 1875.



Attest:  
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# UNITED STATES PATENT OFFICE.

JAMES GRAHAM, OF DETROIT, MICHIGAN.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **159,407**, dated February 2, 1875; application filed August 24, 1874.

*To all whom it may concern:*

Be it known that I, JAMES GRAHAM, of Detroit, in the county of Wayne and State of Michigan, have invented an Improved Car-Coupling, of which the following is a specification:

The nature of my invention relates to an improvement in car-couplings of that class wherein the coupling together of the cars is effected by the dropping of a barbed link into a slot in the head of an opposing draw-bar; and it consists in the peculiar construction of the draw-head, and the combination therewith of a rock-shaft carrying a barbed link, and two bumper-plates, having a longitudinal movement in the draw-head, a keeper for the engaged link, and a coupling-socket for the pilot draw-bar of a locomotive, as more fully hereinafter set forth.

Figure 1 is a perspective view, showing the link in the coupled position. Fig. 2 is a horizontal section. Fig. 3 is a longitudinal vertical section at *y y*. Fig. 4 is a detached perspective view of the rock-shaft, link, and the two bumper-plates.

In the drawing, A represents a cast-iron draw-head, having a vertically-slotted head, partially closed by two end plates, *a*. In the sides are cored two longitudinal vertical recesses, *b*, intersected by slots *c* in the sides. B is a bumper-plate, playing freely in each recess *b*, and through an eye in the inner end of each is inserted a rock-shaft, C, extending through the slots *c* to the sides of the car,

where it may be provided with a hand-wheel or a crank, D, or any other device for operating it. E is a harpoon-link, keyed at one end on the rock-shaft, between the sides of the slotted draw-head. At its outer end is an eye, *d*. F is a box on top of the draw-head, with holes *e e* in both for the purpose of coupling, by means of an ordinary pin, the end of a pilot-bar of a locomotive. G is a keeper, pivoted to the top of the draw-head on either side of the slot.

To couple this draw-head with a similar one, throw down the link of the approaching one, and throw up the link of the one on the stationary car, resting it against the back end of the slot, which will cause the bumper-plates to protrude. As the cars come together these plates are forced in, throwing forward the link, which drops into the slot of the approaching draw-head, its barbed end passing behind the end plates *a* thereof to engage with the said draw-head, when the keeper is swung over it, to prevent it from raising out. The eye in the link serves to couple it with a car having an ordinary link-and-pin coupling.

What I claim as my invention is—

The slotted draw-head A, having the recesses *b b*, slots *c c*, bumper-plates B B, rock-shaft C, and link E, all combined substantially as and for the purpose set forth.

JAMES GRAHAM.

Witnesses:

H. F. EBERTS,  
C. E. HUESTIS.