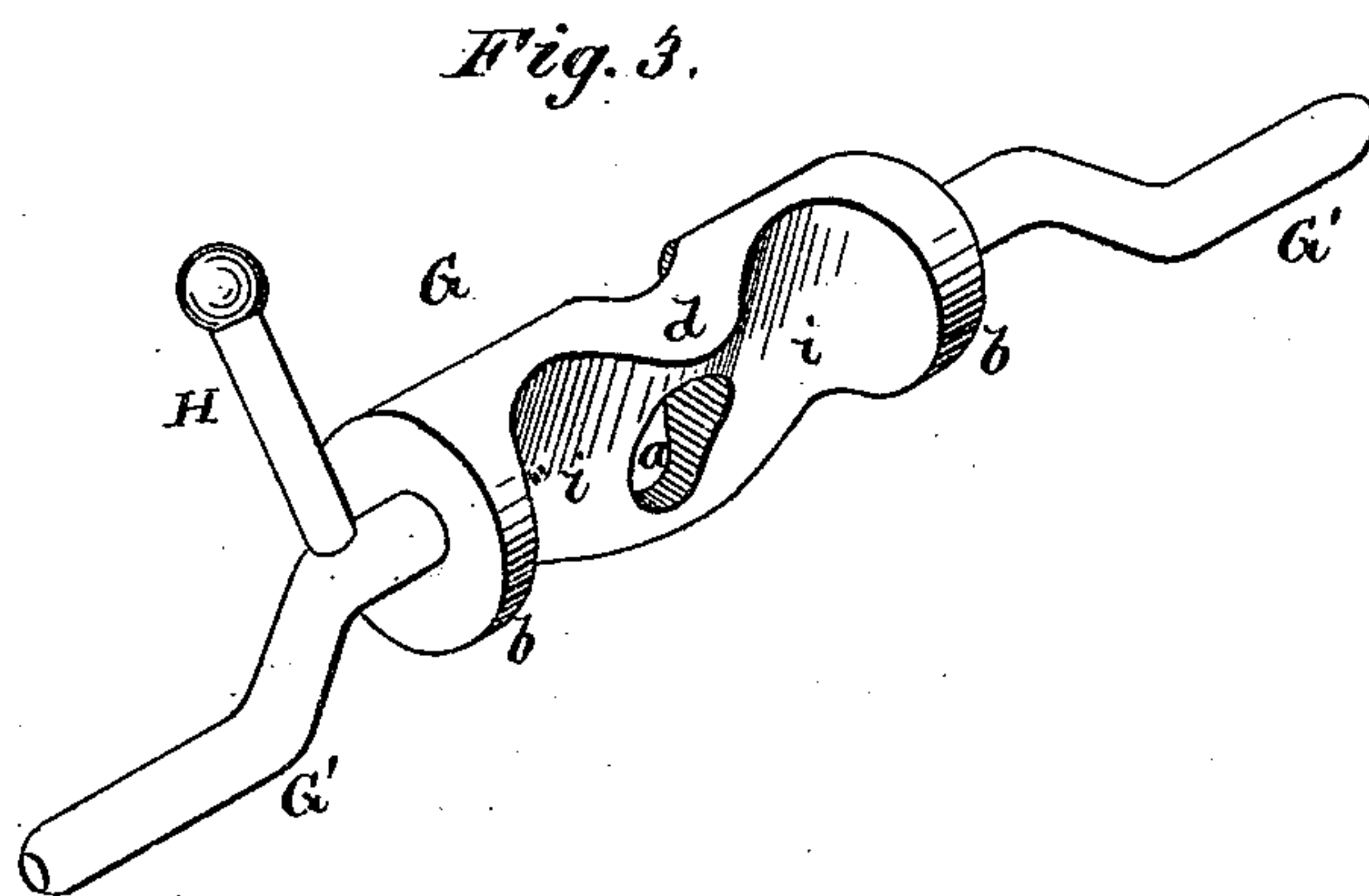
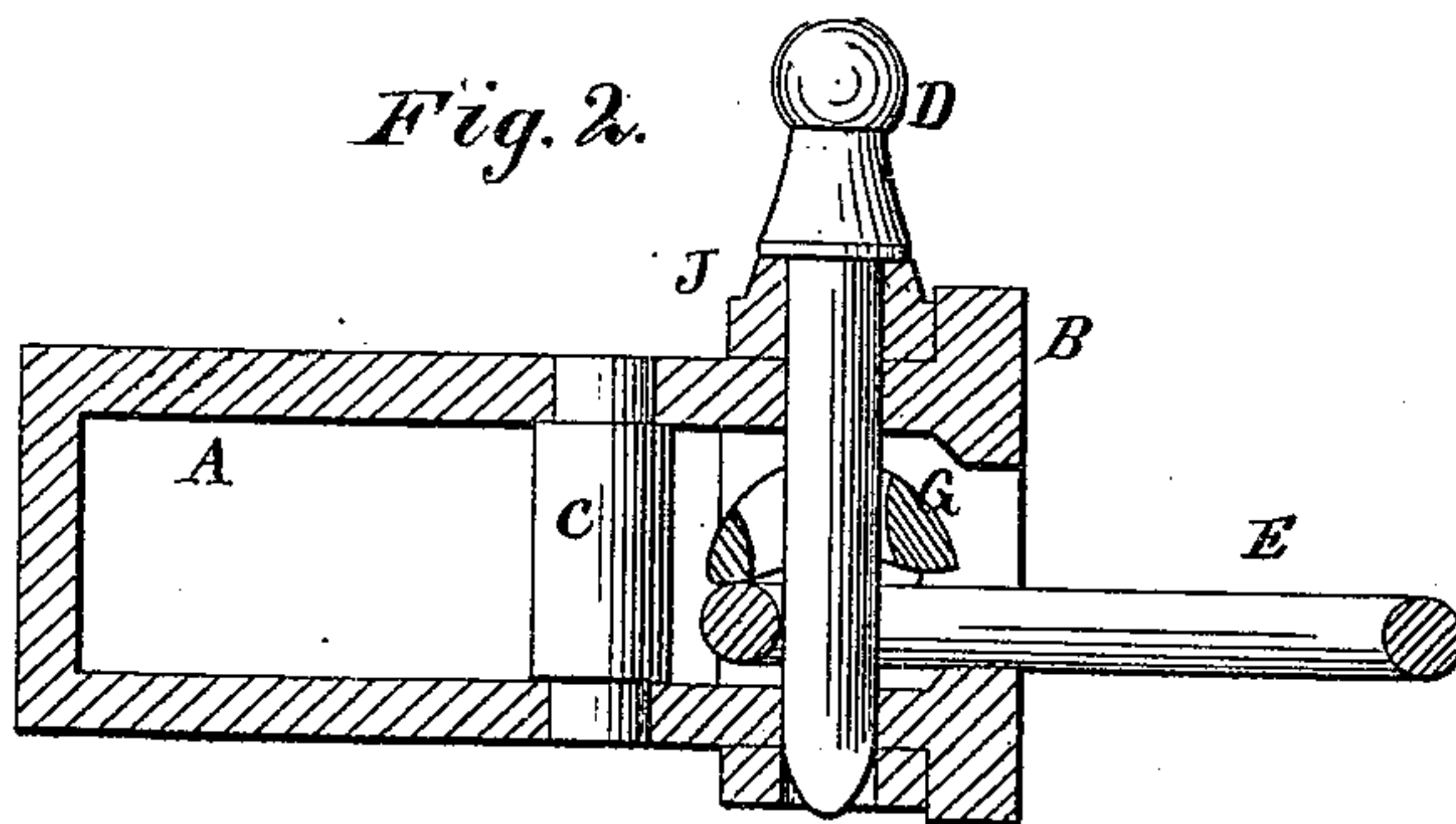
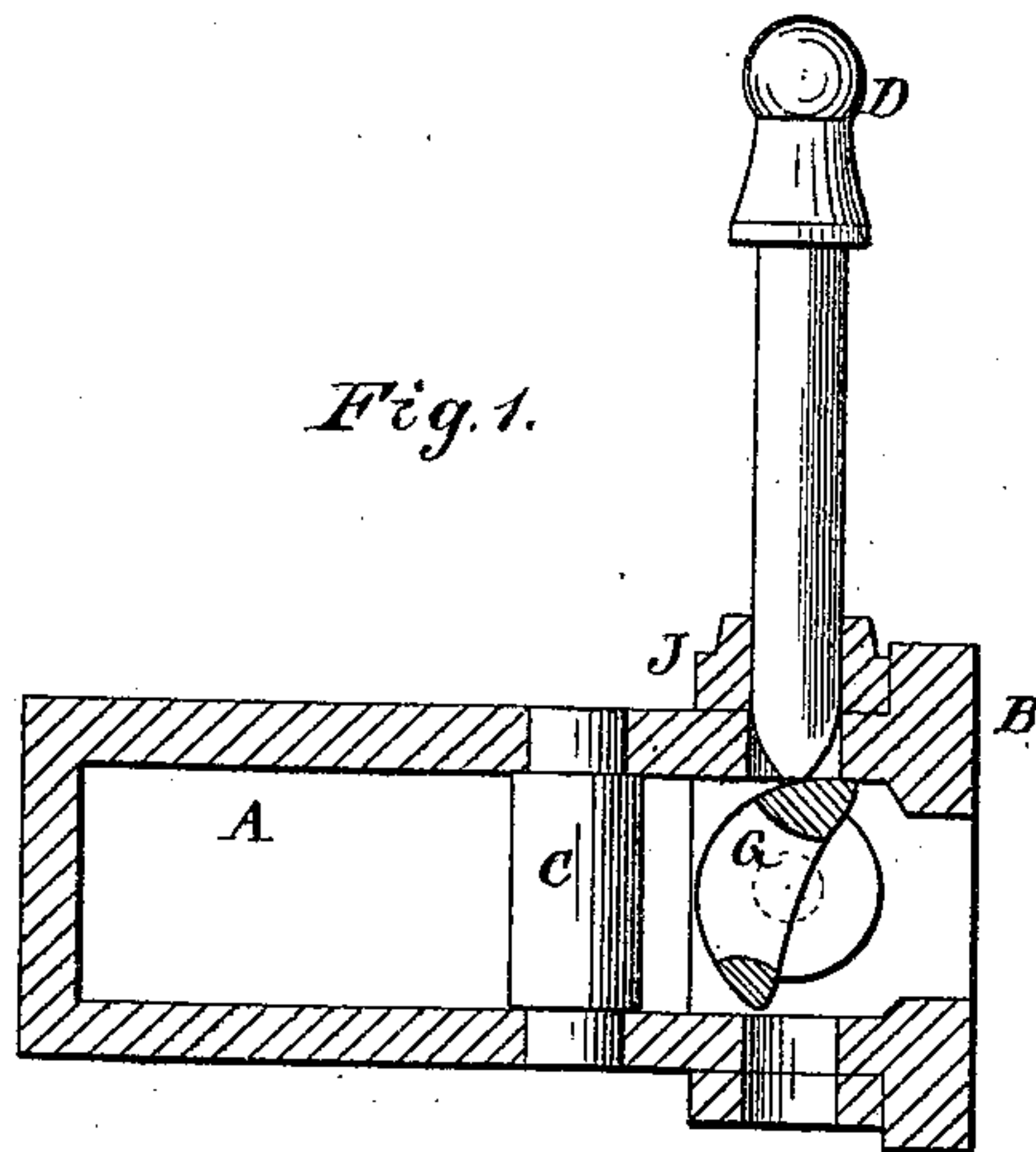


D. ZEIGLER.
CAR-COUPPLINGS.

No. 194,946.

Patented Sept. 4, 1877.



WITNESSES

Henry N. Miller
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UNITED STATES PATENT OFFICE.

DANIEL ZEIGLER, OF LEWISTOWN, PENNSYLVANIA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 194,946, dated September 4, 1877; application filed March 26, 1877.

To all whom it may concern:

Be it known that I, DANL. ZEIGLER, of Lewistown, in the county of Mifflin 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 drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to the ordinary pin-and-link car-coupling; and it consists in the construction and arrangement of an attachment for the same whereby the coupling is rendered automatic in its operation and the link may be adjusted, all as 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 longitudinal vertical section of a draw-head embodying my invention, showing it ready for the insertion of the link. Fig. 2 is a similar view thereof, showing the link inserted. Fig. 3 is a perspective view of the interior drop or gate.

A represents an ordinary draw-head, with bumper B and interior post C. D is the coupling-pin, and E the coupling-link.

The above parts are the same as those now ordinarily in use on various railroads.

Around the front end of the draw-head, immediately back of the bumper B, is shrunk or otherwise permanently secured a metal band, forming a rectangular frame, J. Within the front portion of the draw-head A is a pivoted drop or gate, G, consisting of a bar of malleable iron or other suitable material, and provided at its ends with projecting crank-levers G' G', which have their bearings in the ends of the band or frame J. These crank-levers form the journals for the gate G at their inner ends, and act as weights to cause the rear portion of the gate to fall down and elevate the front portion when neither the coupling pin nor link are in the draw-head.

On the under side of the gate G are formed two side lips, *b b*, and a center lip, *d*, in which latter is a slot, *a*, for the passage of the coupling-pin D.

Between the center lip *d* and the side lips *b* are formed grooves *i i*, in which the coupling-pin E lies under certain circumstances.

When the pin D is drawn up the drop or gate turns on its journals by the weight of the crank-levers G' G', so that its front portion is turned upward, and the pin D can then rest upon the projecting portion of the center lip *d*.

In coupling the cars, when the link E enters the draw-head it strikes the lower part of the drop or gate G and pushes the same backward, throwing the upper part forward, so that the pin D will fall through the slot *a*, through the link, and into the hole in the bottom of the draw-head.

It will be seen that the link E is then held perfectly horizontal by the gate resting upon the inner end of the link, and also against the pin D, as shown in Fig. 2; for if the slot *a* were long enough to allow the gate to sink still further down at the rear it would depress the inner end of the link, and, of course, raise the outer end.

By lifting the pin D to a certain height, the outer end of the link is raised to couple with a higher car; and, by means of either one of the crank-levers G', the gate may be turned forward, when the outer end of the link will drop so as to couple with a lower car. The grooves *i i* in the gate then fit over the two side arms of the link.

The two crank-levers G' G' are intended to be made long enough so that the gate may be manipulated from either side of the car without going in between them. To one of these levers, near the inner end, is attached an upwardly-projecting arm, H, by means of which the gate may be operated from the top of the platform as well as from the sides of the car.

The levers G' G' may be made in one piece with the gate G; or they may be made separate, and screwed or otherwise fastened in the ends thereof.

My invention, as thus constructed, is intended to be applied to the ordinary draw-

head, using the old draw-head and old pin and link; and it can be made and put on at very little expense.

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

The drop or gate G, constructed as described, with side lips *b b* and center lip *d*, with slot *a*, and having the crank-levers G' G'

projecting from its ends, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

DANIEL ZEIGLER.

Witnesses:

FRANK GALT,
HENRY N. MILLER.