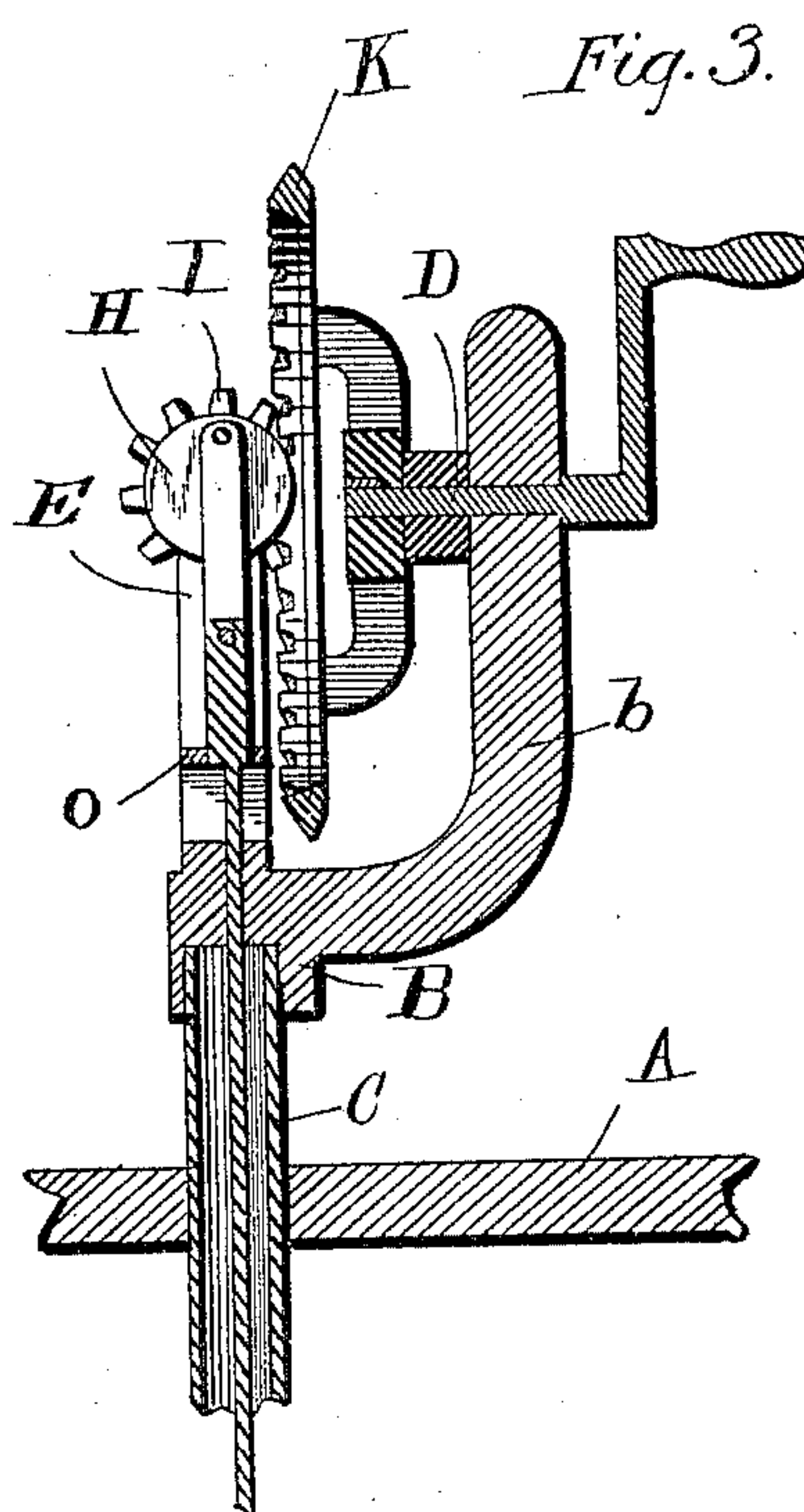
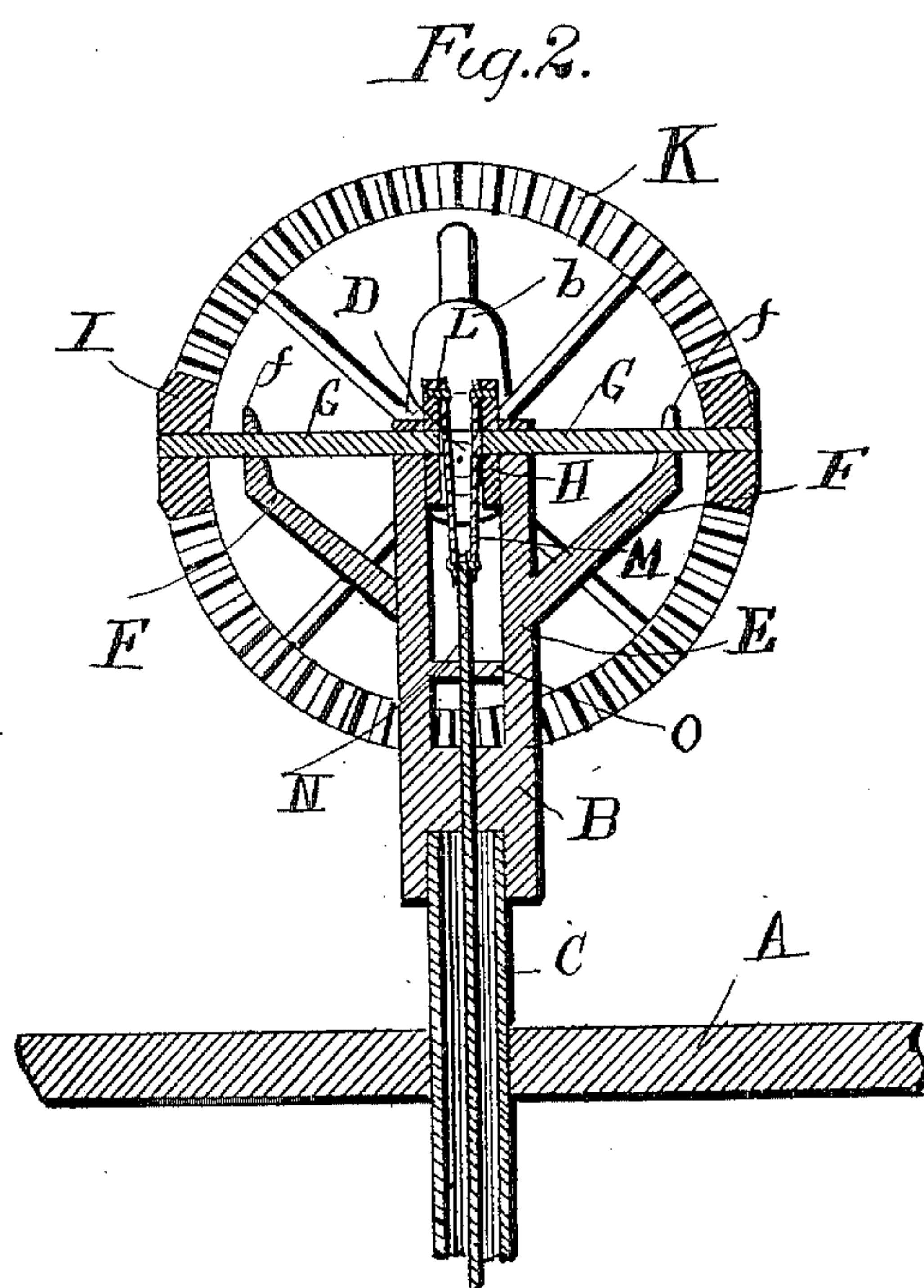
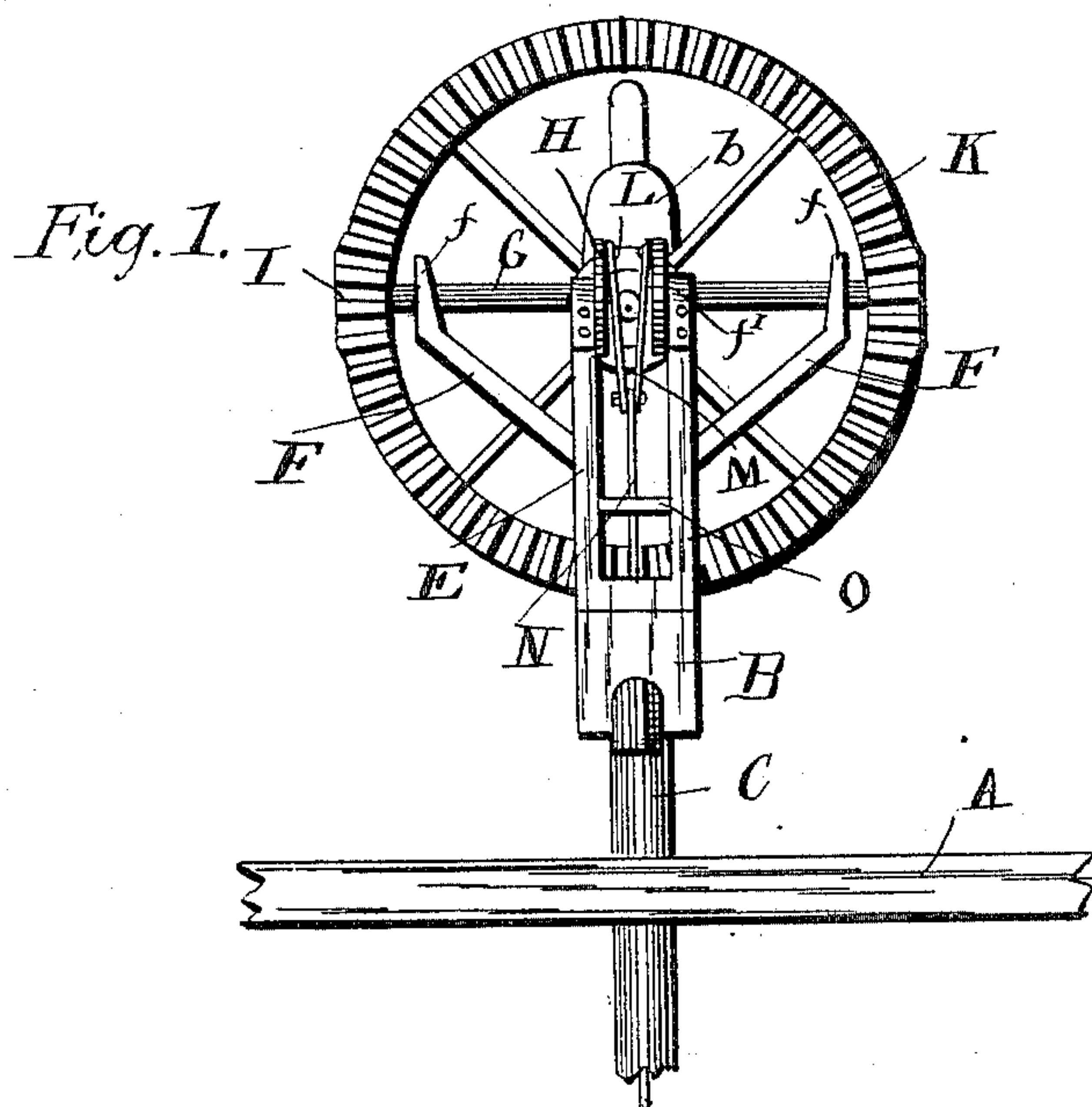


(No Model.)

R. H. DROUGHT.  
PUMP OPERATING MECHANISM.

No. 581,813.

Patented May 4, 1897.



Witnesses  
Henry F. Hills  
H. A. Nave.

Inventor  
Ralph H. Drought  
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his Attorney



# UNITED STATES PATENT OFFICE.

RALPH H. DROUGHT, OF KELLOGG, IDAHO.

## PUMP-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 581,813, dated May 4, 1897.

Application filed April 14, 1896. Serial No. 587,442. (No model.)

*To all whom it may concern:*

Be it known that I, RALPH H. DROUGHT, a citizen of the United States, residing at Kellogg, in the county of Shoshone and State of Idaho, have invented certain new and useful Improvements in Pump-Operating Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in pumps, and more particularly to the mechanism for operating the same; and it has for its object, among others, to provide a simple and cheap construction of pump in which the operating power occupies but little room, and while it is designed, primarily, for railway sleeping-cars it is of course evident that it is applicable for use in other places. I also provide a construction whereby great power is obtained by the employment of few parts, and those readily assembled and not liable to get out of order.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an elevation of my improved pump. Fig. 2 is a vertical section through the same in line with the shafts of the disks. Fig. 3 is a vertical section at right angles to Fig. 2.

Like letters of reference indicate like parts in the several views.

Referring now to the details of the drawings by letter, A designates the base or platform, and B a bracket or casting supported thereby or by the pump-barrel C, this casting having the upwardly-extending arm *b*, in which is mounted for rotation the shaft D, while said casting is also formed with the vertical bifurcated upright E, from which extend the inclined arms F, which terminate in the upwardly-extending portions *f*.

G are shafts mounted in suitable bearings in these portions *f* and in bearings or boxes *f'* on the upper end of the bifurcated portions

of the casting, and on the inner ends of these shafts are the disks H, while on their outer ends are the beveled pinions I, which are adapted to mesh with the crown-gear K, carried by the shaft D, as shown.

Connected with the wrist-pins L of the disks H are the arms M, the lower ends of which are pivotally connected with opposite sides of the pump-rod N, which is mounted to reciprocate through the guide O, connecting the bifurcated portions of the upright E, and through a suitable guide beneath the same.

The operation will be apparent. As the shaft D, which is provided with a crank-handle for its actuation, is rotated the beveled gears meshing with the crown-gear cause the shafts to rotate simultaneously in opposite directions, and by reason of the disks thereof and their connection with the pump-rod the latter is caused to be reciprocated vertically with great rapidity.

Modifications in details may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

Having thus described the invention, what is claimed as new is—

1. The combination with the casting and the shafts mounted in bearings therein and having beveled gears, of the operating-handle and its shaft, the crown-gear thereon, the disks on the first-mentioned shaft, and the rods connecting the wrist-pins of said disks with the pump-rod, substantially as described.

2. The combination with the casting and the shafts mounted in bearings therein and having beveled gears, of the operating-handle and its shaft, the crown-gear thereon, the disks on the first-mentioned shaft, and the rods connecting the crank-pins of said disks with the pump-rod, said crank-pins being oppositely disposed and the disks mounted for rotation simultaneously in opposite directions, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

RALPH H. DROUGHT.

Witnesses:

H. DROUGHT,  
J. W. CARLSON.