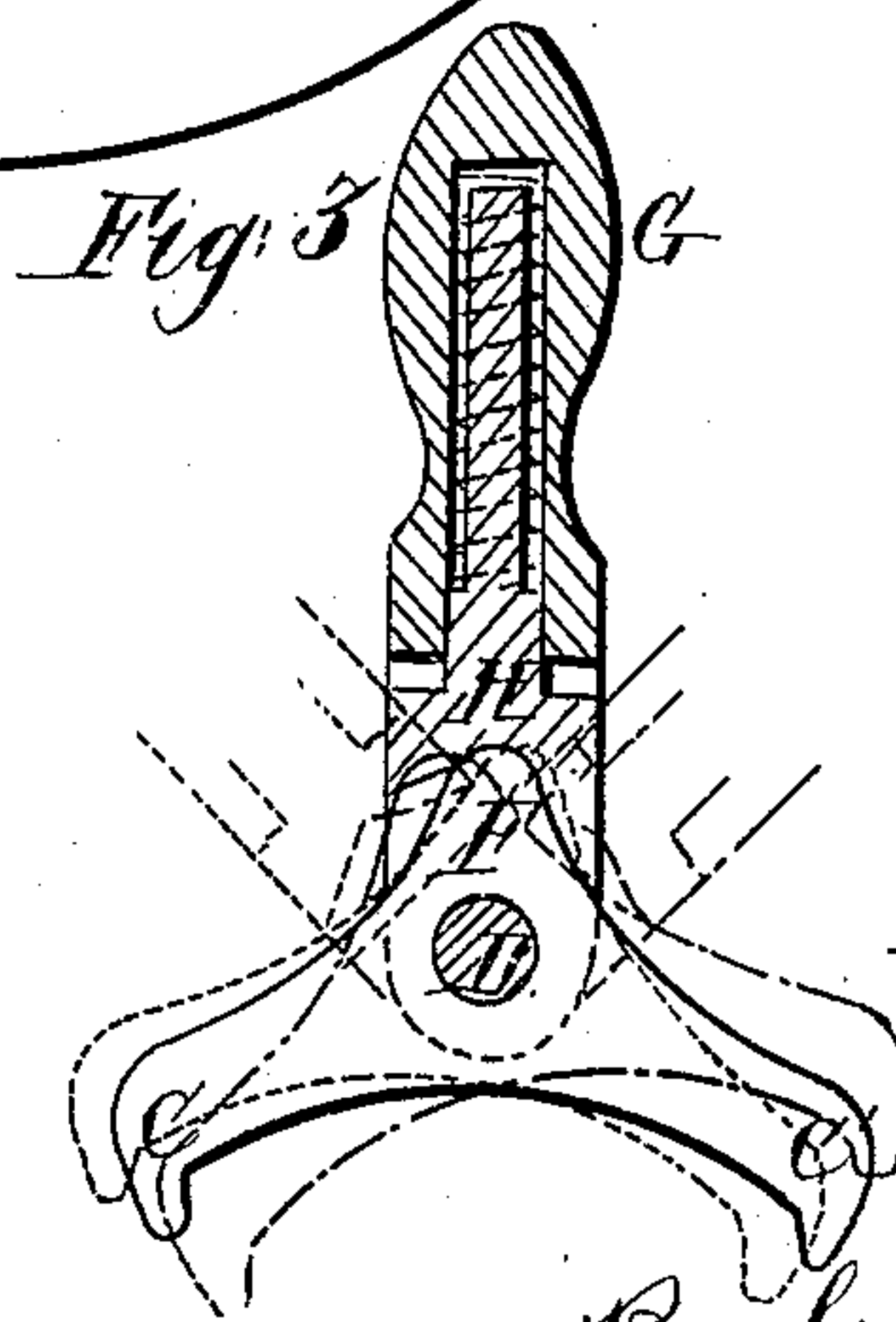
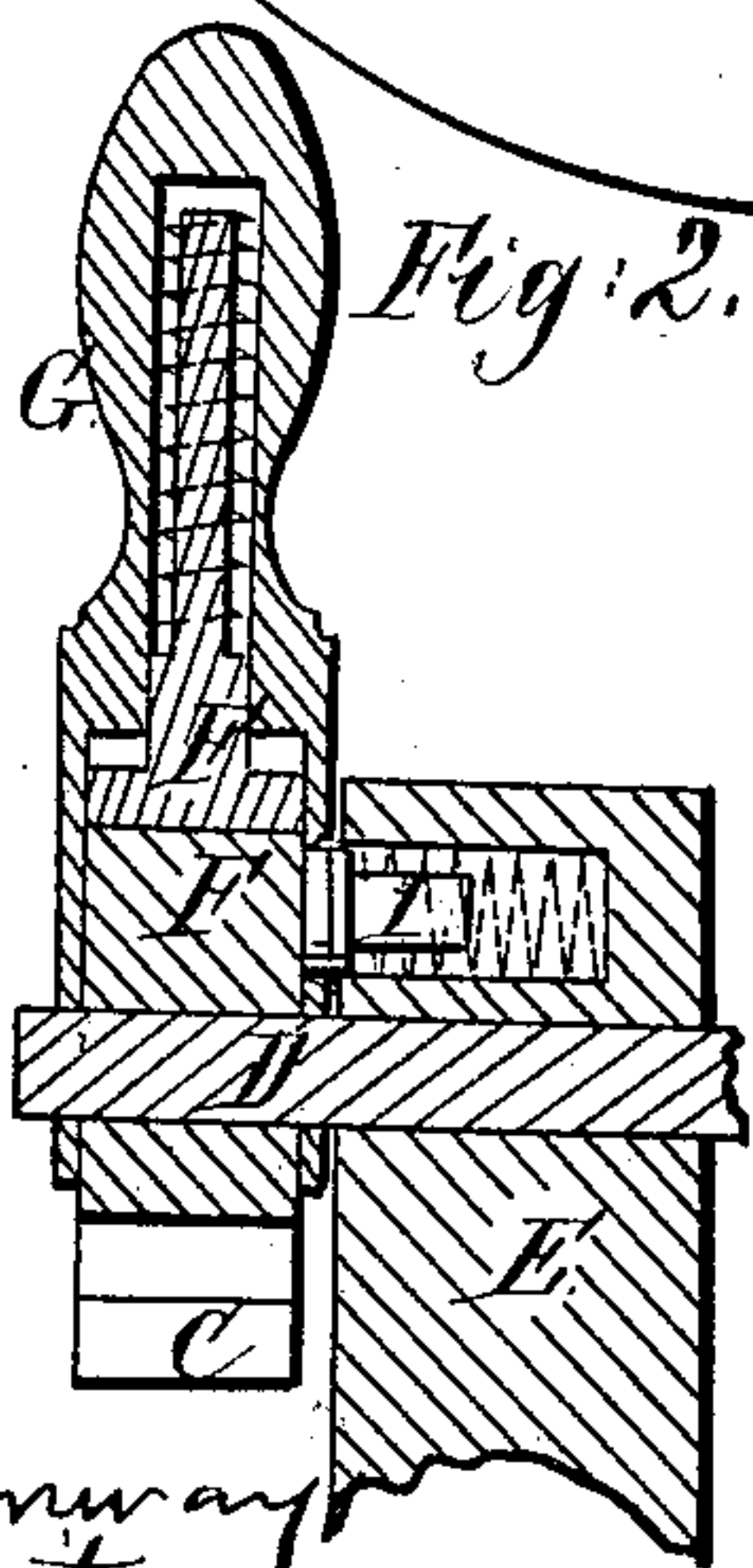
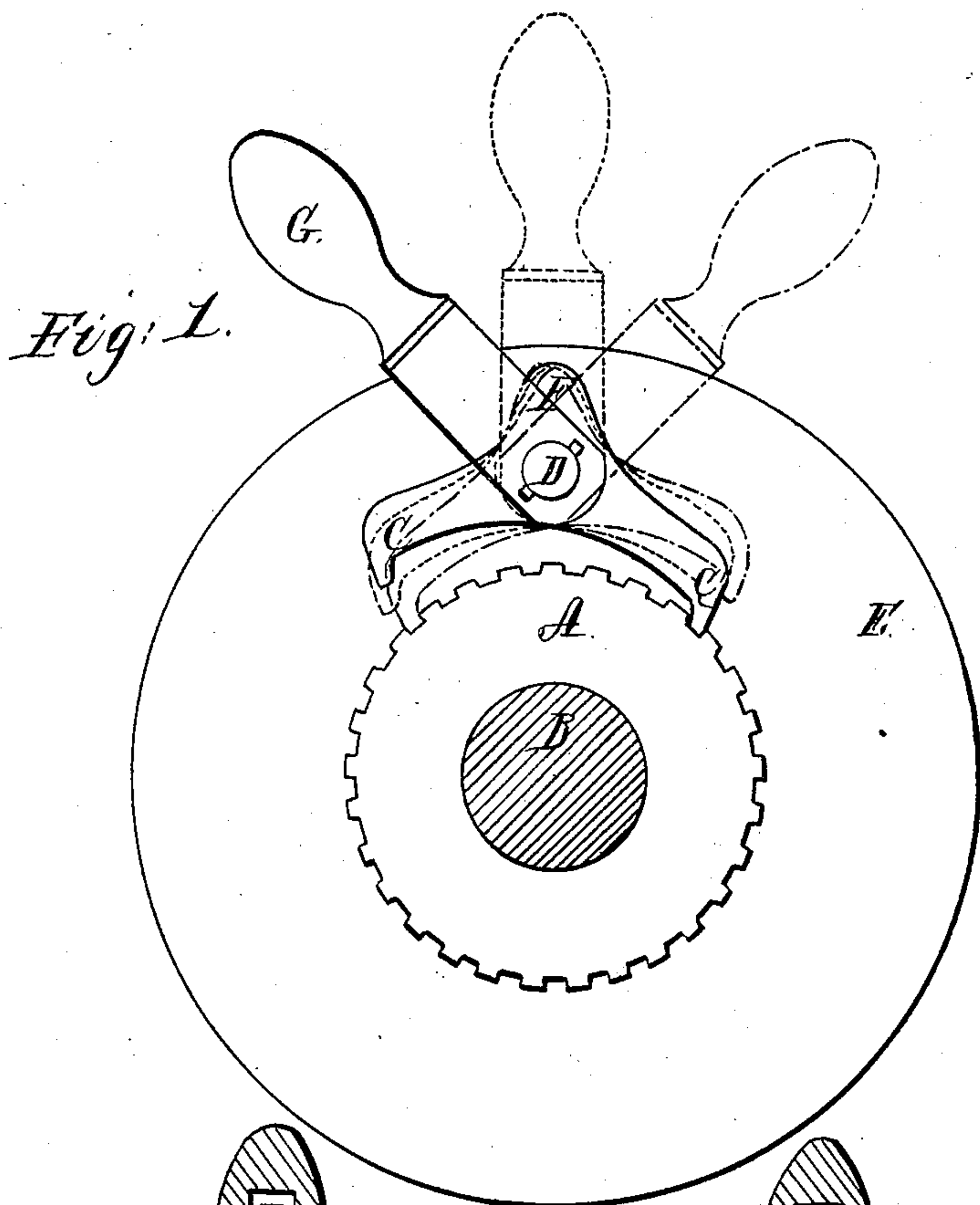


*A.B. Bean*

*Ratchet Feed.*

*N<sup>o</sup> 84,527.*

*Patented Dec. 1, 1868.*



*Witnesses:*

*J. H. Hummway  
a J. T. Tabbets*

*Inventor:*

*A. B. Bean*

*By his Attorney  
John E. Earle*



ALBERT B. BEAN, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO HIMSELF AND J. H. BOOTH, OF SAME PLACE.

Letters Patent No. 84,527, dated December 1, 1868.

**IMPROVEMENT IN REVERSIBLE-RATCHET FEED.**

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, ALBERT B. BEAN, of New Haven, in the county of New Haven, and State of Connecticut, have invented a new Improvement in Reversible-Ratchet Feed; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view;

Figure 2, a transverse section; and, in

Figure 3, a front sectional view.

This invention is designed especially as an improvement in the feed for metal-planers, but is alike applicable to all machines where a similar reversible feed is required; and

The invention consists in the arrangement of a double-ended pawl, pivoted at or near its centre, and combined with a lever, in which is arranged a cam, bearing upon the head of the double pawl, so that, as the lever is turned in one direction, one end of the pawl will operate upon the ratchet, and, upon reversing the lever, the pawl will be reversed, so as to operate in the opposite direction.

In order to the clear understanding of my invention, I will fully describe the same, as illustrated in the accompanying drawings.

A is the ratchet-wheel, arranged upon a shaft, B, or so as to make a connection from the ratchet-wheel to that part of the machinery to be reversed.

C C' are two ends of a pawl, pivoted at D, so as to turn freely on the said pivot, and permit either end, as the case may be, to fall upon the wheel A.

The pawl is pivoted to a wheel or lever, E, to which a constant reciprocating motion is imparted, so that, by such reciprocating motion of the wheel or lever E, the ratchet will be turned to the right or left, according to which of the two ends of the pawl is working thereon.

The head F of the pawl extends up above the pivot, as seen in fig. 3, and upon the pivot D is hung a lever, G, within which is arranged a cam, H, resting on the head F of the pawl, the said cam being pressed downward by a spiral spring within the handle, as denoted in figs. 2 and 3. Therefore, when in an upright position, as in fig. 3, the cam bearing upon the head of the pawl will hold both ends of the pawl from the ratchet, as denoted in red, fig. 1, or as denoted in fig. 3. Turned to the left, as in fig. 1, or, as in red, fig. 3, the spring forces the cam down upon the side of the head of the pawl, and thus forces the pawl over to the right, as denoted in red, fig. 3, so that the end, C', will operate upon the ratchet, but when the lever is turned to the other side, as denoted in blue, the cam forces the pawl the other way. The other end, C, of the pawl, acting upon the ratchet, reverses the action. Thus, by simply turning the lever from right to left, the feed is instantly reversed; or, to a perpendicular position, the feed is entirely stopped.

To arrest the lever when in a perpendicular position, I arrange a conical-headed pin, I, in the wheel or lever E, and a corresponding indentation in the lever, so that, when the lever is turned to the perpendicular position, the said pin will fly out into the indentation in the handle, and support it in that position, but yet so that a little force will move the lever from that position to the right or left.

Having fully described my invention,

What I claim as new and useful, and desire to secure by Letters Patent, is—

The double-ended pawl, constructed with the head F, in combination with the lever G, having the cam H arranged therein, so as to operate to reverse the action of the pawl, substantially in the manner herein set forth.

A. B. BEAN.

Witnesses:

J. H. SHUMWAY

A. J. TIBBITS,