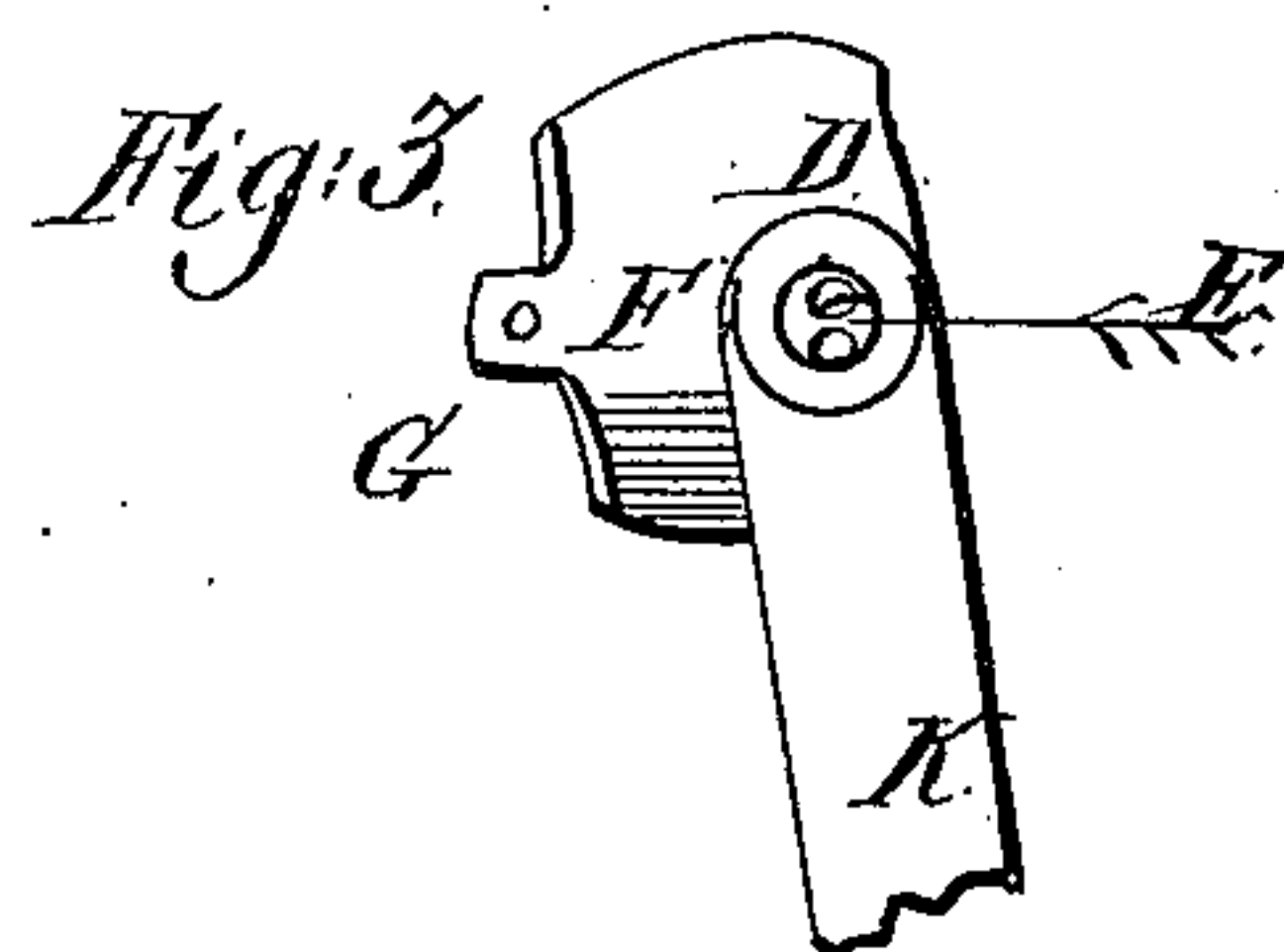
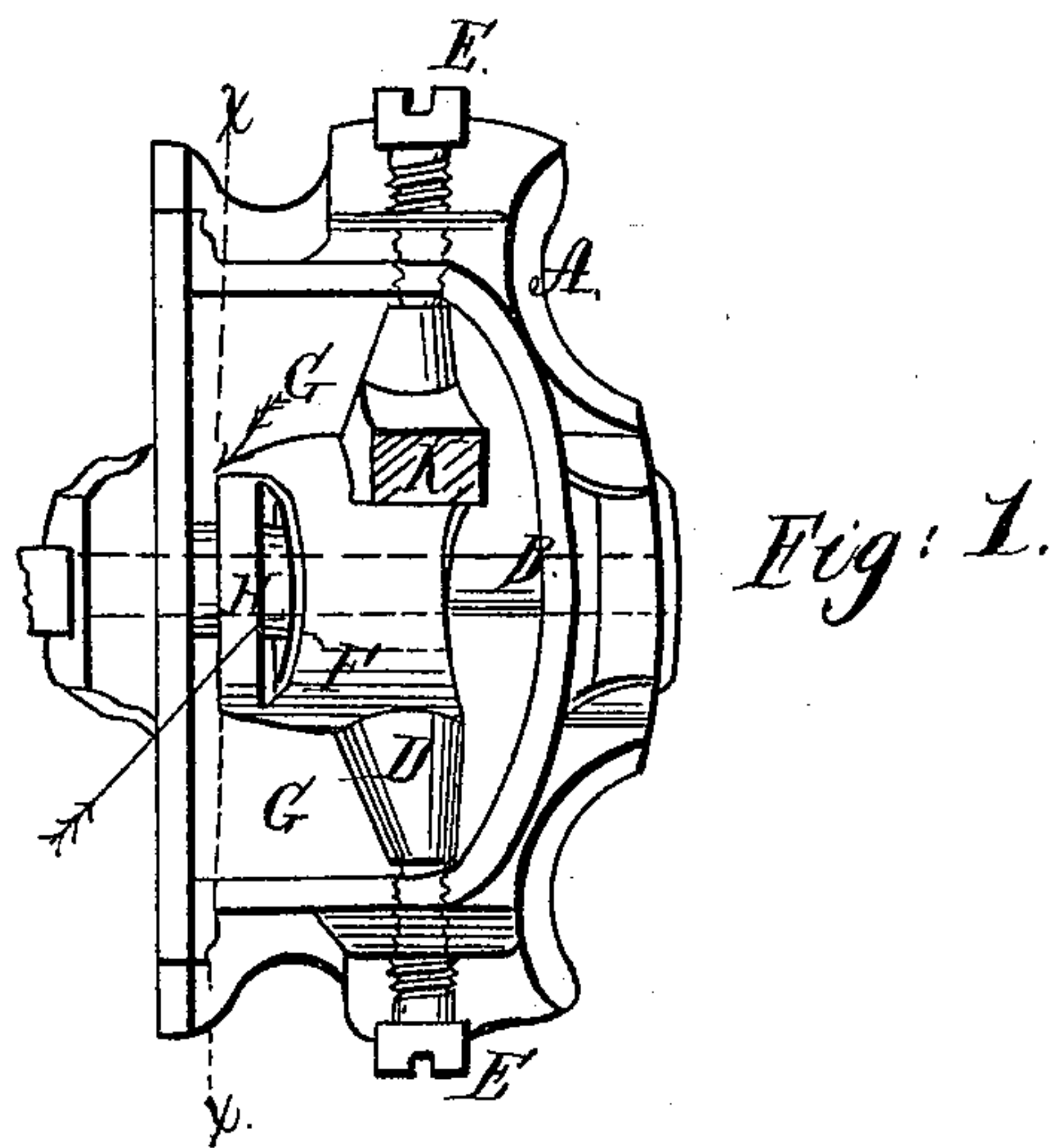
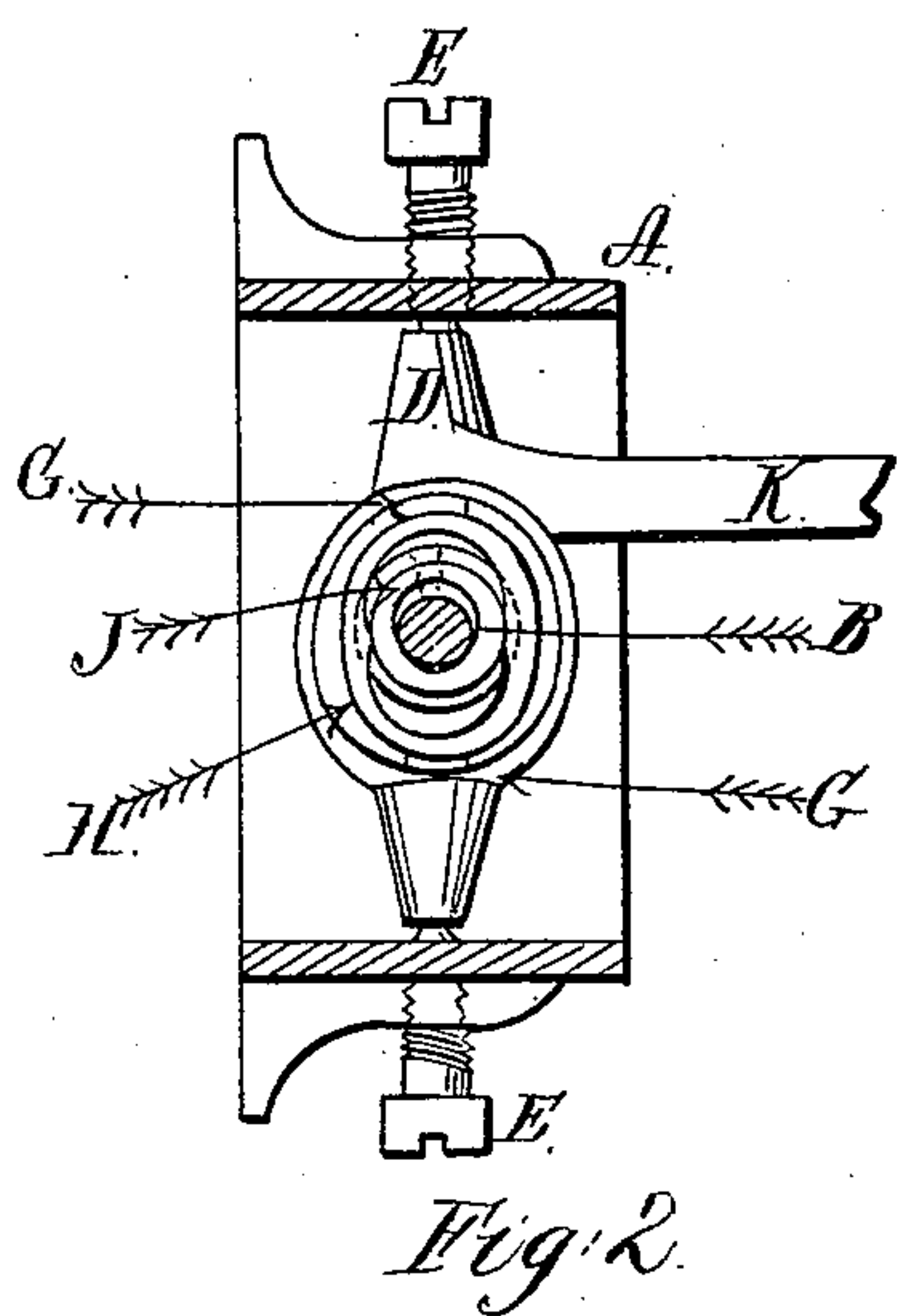


*W. N. Brown,
Converting Motion.*

N^o 25,880.

Patented Oct. 25, 1859.



*Witnesses:
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Wm. T. Barritt*

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UNITED STATES PATENT OFFICE.

WM. NEWTON BROWN, OF NEW YORK, N. Y.

MECHANISM FOR CONVERTING ROTARY INTO RECIPROCATING MOTION.

Specification of Letters Patent No. 25,880, dated October 25, 1859.

To all whom it may concern:

Be it known that I, W. NEWTON BROWN, of the city, county, and State of New York, have invented certain new and useful Improvements in Mechanism for Converting a Rotary into a Reciprocating Motion; and I do hereby declare the following to be a full description of the same.

The nature of my invention consists in the use of an oblong swiveled ring, in combination with the hub of a rock shaft, and cam of a rotating axis, passing through the opening of the oblong ring and hub, so that as the cam is rotated, the upper and lower sides of the ring are alternately depressed or raised. As the axes of the ring are supported in ear pieces on the end of the hub, it allows of a swivel like motion in the sides of the ring, to accommodate itself to the throw of the cam, which pressing either upward or downward as the position of the cam may indicate, causes the hub of the rock shaft to rock on its axis, and thus through an arm attached to its upper or lower sides communicate a reciprocating or vibratory motion to any desired piece of mechanism. But to describe my invention more particularly I will refer to the accompanying drawings forming a part of this specification, the same letters of reference wherever they occur referring to like parts.

Figure 1 is a plan view of the mechanism. Fig. 2 is an end view through the line x, x , Fig. 1. Fig. 3 is a detached view of the rock shaft.

Letter A, is the frame of the mechanism, having arranged longitudinally through its

center an axis B, on the end of which is a crank, or other suitable propelling attachment. Transversely of the frame is adjusted a rock shaft D, supported on pivot set screws E, E, through the sides of the frame A. This rock shaft is made with a hollow hub F, which by its extension, at right angles to the axis of the rock shaft forms a right-angled lever. On the end of this hub is adjusted on pivots G, G, an oblong ring H. These pivots are secured in the elongated ends of the ring, and so adjusted as to allow a swivel like motion in the ring on its axis. The object of this is to permit the ring to accommodate itself to the vibratory motion of the hub, in consequence of the cam J, on the shaft, or axis B, impinging on the inner surfaces of the parallel surfaces of the ring H, as it rotates, to communicate a rocking motion to the shaft D, and thus through the arm K, attached to the hub, transmit a rectilinear motion to any piece of mechanism.

Having now described my invention I will proceed to set forth what I claim and desire to secure by Letters Patent of the United States.

I claim the rock shaft D, having a hollow hub F, substantially as described, in combination with the oblong ring H, and rotating cam J, the said parts being made and operating in the manner set forth, and for the purposes described.

W. NEWTON BROWN.

Witnesses:

C. L. BARRITT,
WM. BARRITT.