

Z. BEAUDRY.
Mechanical Movement.

No. 221,953.

Patented Nov. 25, 1879.

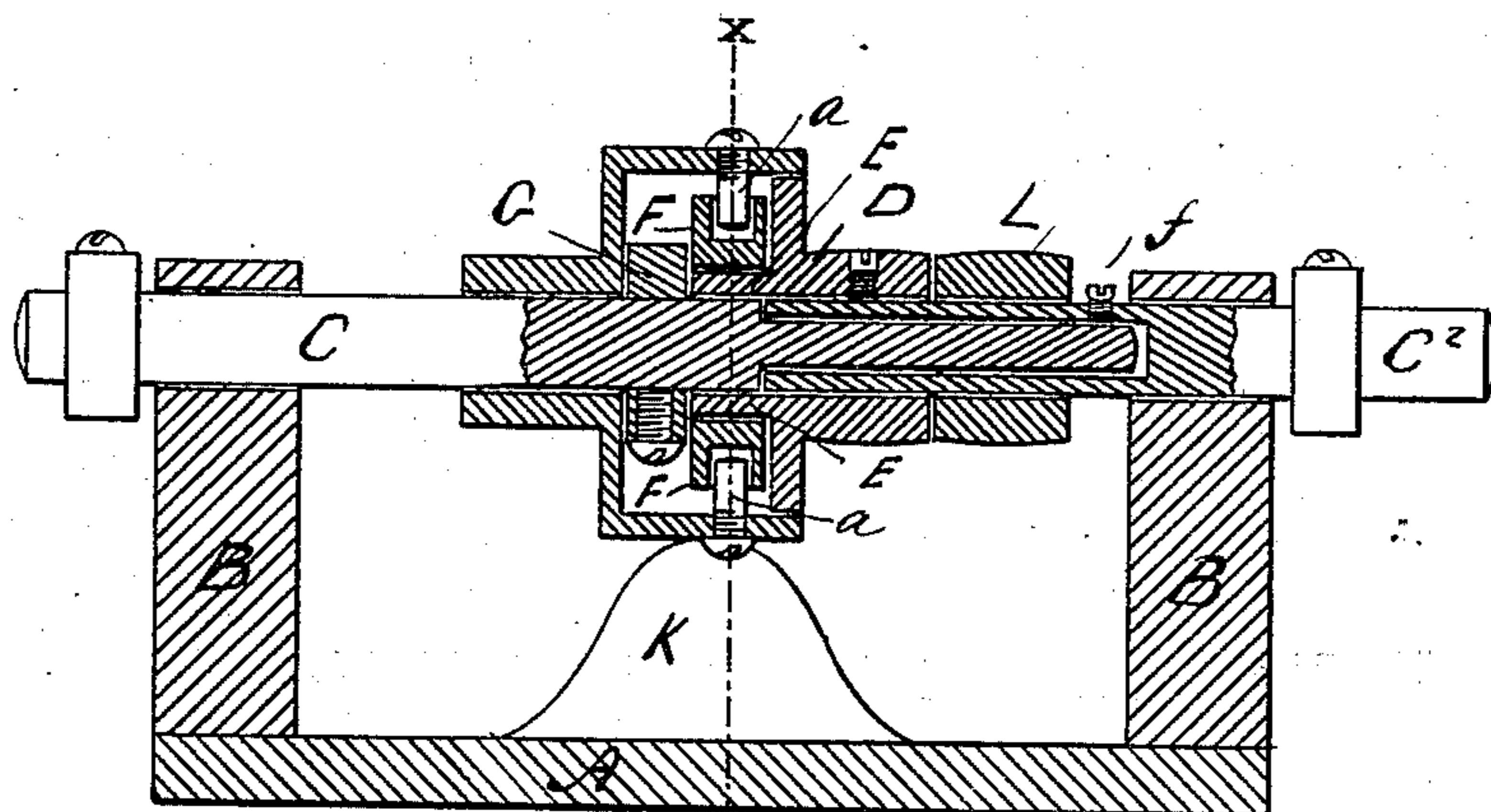


Fig. 1.

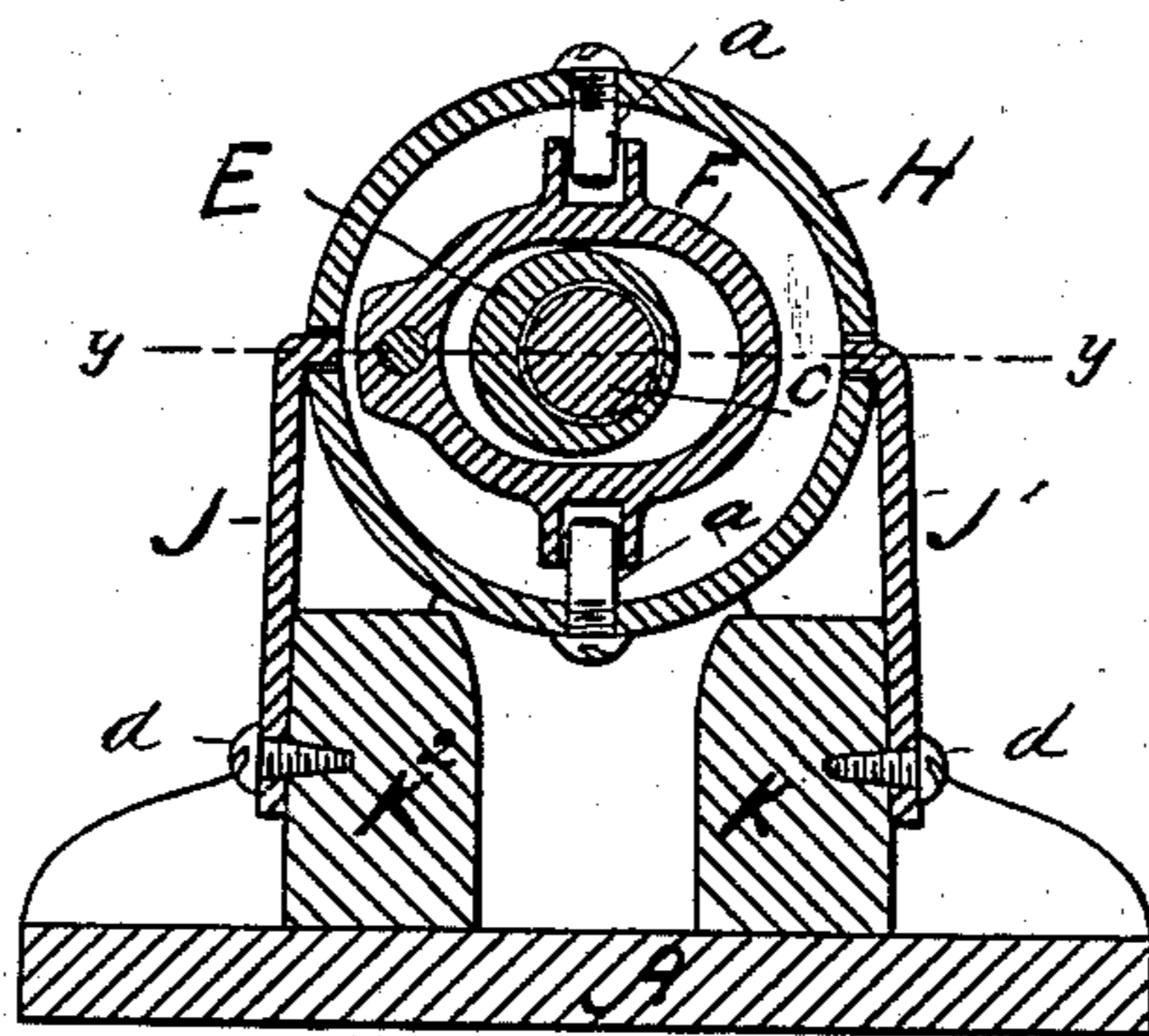


Fig. 2.

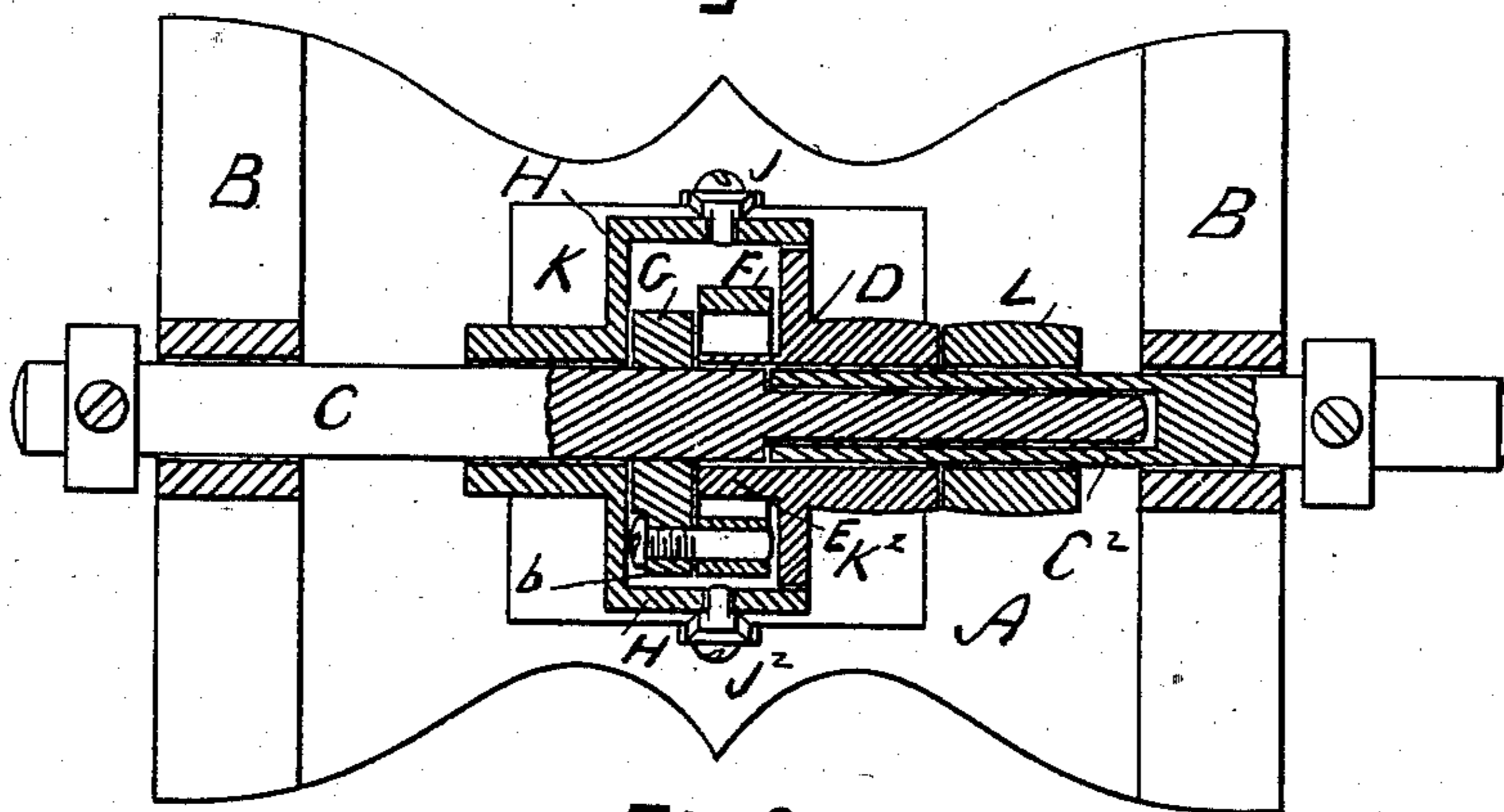


Fig. 3.

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ZOTIQUE BEAUDRY, OF LYNN, MASSACHUSETTS, ASSIGNOR TO HIMSELF
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IMPROVEMENT IN MECHANICAL MOVEMENTS.

Specification forming part of Letters Patent No. **221,953**, dated November 25, 1879; application filed
April 19, 1879.

To all whom it may concern:

Be it known that I, ZOTIQUE BEAUDRY, of Lynn, in the county of Essex and State of Massachusetts, have invented a certain new and useful Improvement in Mechanical Movements, of which the following is a full, clear, and exact description.

This invention relates to obtaining from a rotary movement a rocking or vibratory movement, and it is more especially designed for use in machines for burnishing heels of boots and shoes.

This improved arrangement of mechanism for the above purpose consists of a cam on a rotary shaft, of a yoke within which such cam revolves, which yoke, under the revolution of the cam, is adapted to move forward and backward in fixed ways across the plane of rotation of the cam; also, of a crank-arm on the shaft to be rocked or vibrated, which crank-arm is hung or pivoted to said yoke, all substantially as hereinafter described.

This invention also consists in a combination and arrangement of the parts above described, whereby the vibratory or rocking motion of one of the shafts can be readily changed to a rotating motion, if so desired, all substantially as hereinafter described.

In the accompanying plate of drawings my improved mechanical movement is illustrated, Figure 1 being a central longitudinal vertical section; Fig. 2, a transverse vertical section on line *x x*, Fig. 1; and Fig. 3, a longitudinal section on line *y y*, Fig. 2.

In the drawings, A represents a base-plate having two parallel uprights, B B, making the bearings for a horizontal shaft, C C², which is in two parts, one of which parts, C, enters into the other part, C², between the two uprights B, and in such manner that the two parts of the shaft can turn, the one upon or within the other, as the case may be, or each part independently of the other.

D is a pulley fastened to the part C² of the two-part shaft C C², and E a cam fixed to said pulley and to said shaft C², so as to turn therewith.

F is a yoke-frame which surrounds the cam E. The yoke F travels on two fixed guides, *a*, which are situated diametrically opposite

to each other in a vertical line, and the inner periphery of the yoke, together with the periphery of the said cam E, are relatively shaped for the cam as it rotates, in order to move the said yoke upward and downward on its guides, which movement of the yoke is across the plane of rotation of the cam.

G is a crank-arm fixed to the part C of the two-part shaft C C², and at its outer end *b* is hung or pivoted to the outer face of the yoke F at one side of the shaft C.

The guides *a* of the yoke F are secured to a casing, H, which surrounds and incloses the cam E and said yoke F. This casing H is held stationary by two arms, J J', interlocking with it on opposite sides, and secured by screws *d* to the blocks K K² of the base-plate A.

With an arrangement of mechanism such as above described, the rotation of the cam E moves the yoke upward and downward, and this movement of the yoke, through the crank G, vibrates or rocks the shaft C forward and backward, and thus secures to any tool or other device connected with such shaft—as, for instance, a burnishing-tool for the heels of boots and shoes—a rocking or vibratory movement.

f is a set-screw screwing into the shaft C² in a position to abut against the shaft within it, if it be screwed in sufficiently far therefor, and thus it will fasten the outer shaft, C², to the inner shaft, C. By setting this set-screw *f* against the inner shaft, C, and disconnecting the holding-arms J J' from the shell or case H, which carries the guides for the yoke, by loosening their holding-screws *d*, and by springing and swinging them out of engagement with said shell, the running of the two shafts as one is secured—that is, the rotation of the shaft C, in unison with the shaft C², is effected.

L is a loose pulley on shaft C² for the driving-belt to be transferred or shifted to from the fixed pulley.

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

1. A two-part shaft, C C², one entering and turning within the other, in combination with a cam, E, on the part C² of shaft C C² within

a yoke, F, which yoke is adapted to move forward and backward across the plane of rotation of the cam on fixed guides, and is connected by a crank-arm, G, to the part C of shaft C C², all substantially as described, for the purpose specified.

2. The arms J J', adapted to hold the guides a for yoke F against movement, and to release the same, substantially as and for the purpose described.

3. The combination, with the two-part shaft C C², the cam E, yoke F, and crank-con-

tion between the yoke and shaft C, of the inclosing-case H, holding-arms J J', adapted to engage or disengage the case, and a set-screw passing through the part C² of the shaft, to engage or disengage the part C of said shaft, substantially as shown and described, for the purpose set forth.

ZOTIQUE BEAUDRY.

Witnesses:

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