

J. J. Lebeau,

Clark.

No. 104,606.

Patented June 21, 1870.

FIG. 1.

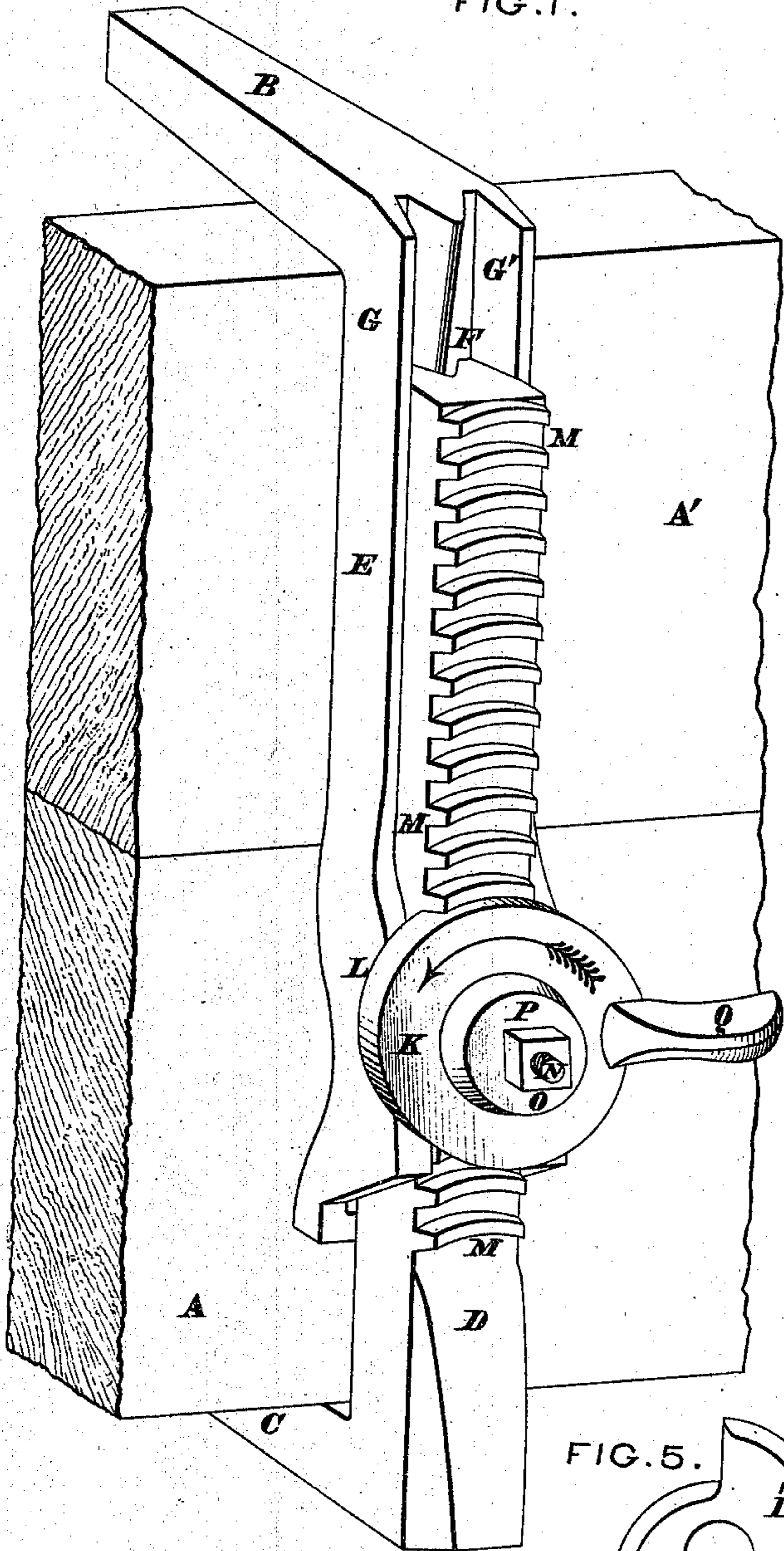


FIG. 2.

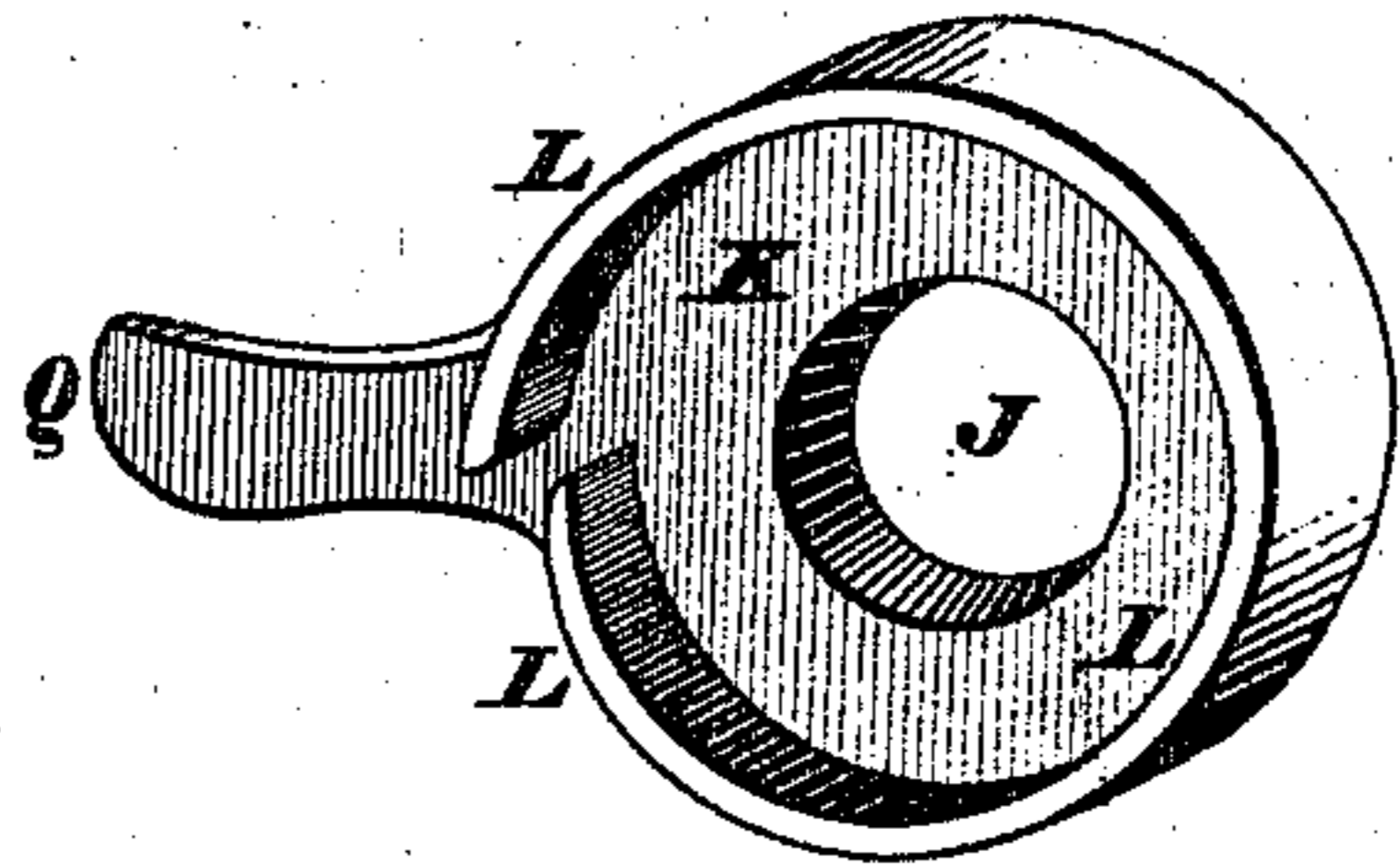


FIG. 3.

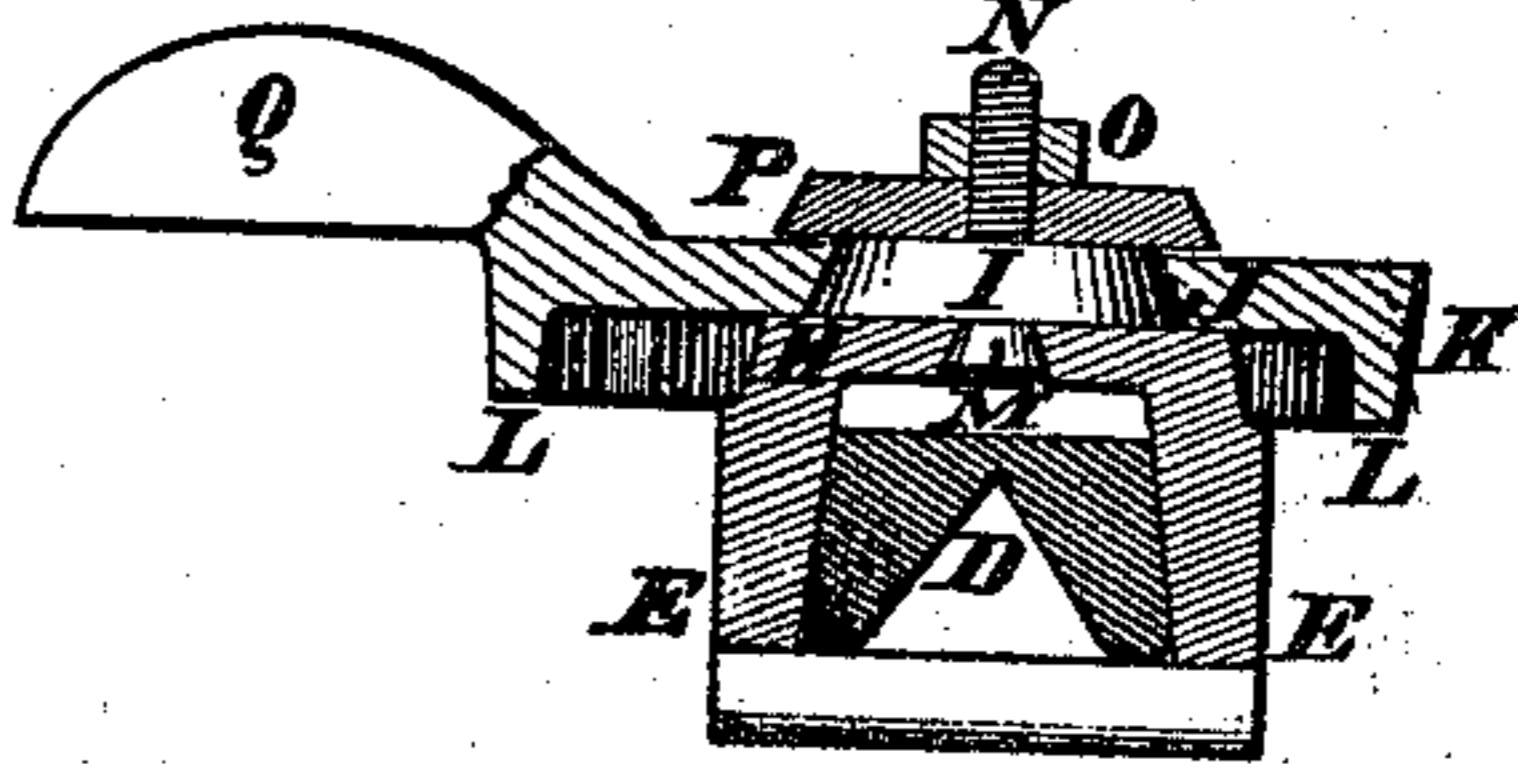


FIG. 4.

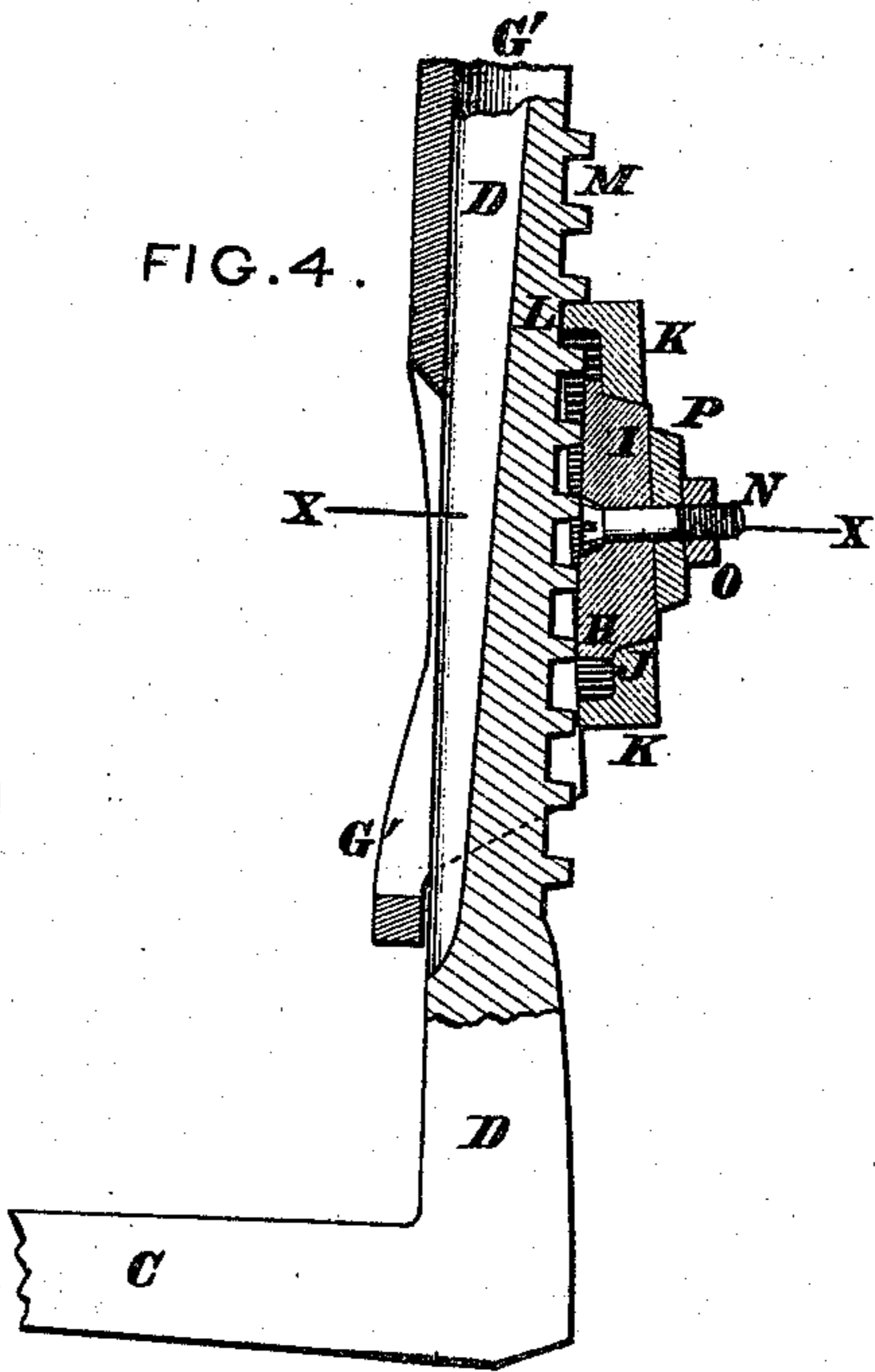
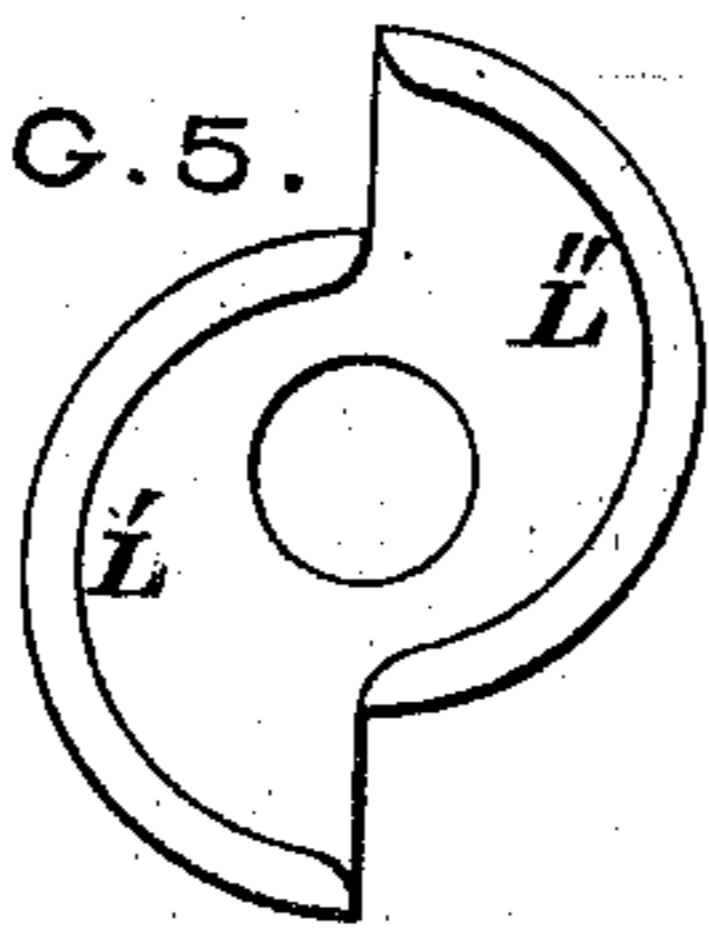


FIG. 5.



ATTEST.
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A. D. Smith

*Knight Bros.
attys. for Lebeau.*

United States Patent Office.

JOHN J. LEBEAU, OF CINCINNATI, OHIO.

Letters Patent No. 104,606, dated June 21, 1870.

IMPROVEMENT IN CLAMPS.

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

I, JOHN J. LEBEAU, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Clamp, of which the following is a specification.

Nature and Objects of the Invention.

The subject of my invention is a clamp for molders, cabinet-makers, and others.

It consists, essentially, of a pair of bars, sliding one upon or within the other, provided at their extremities with projecting jaws or arms, and at back with a spiral cam, pivoted upon one bar and engaging with a rack on the other, as hereinafter described.

General Description with Reference to the Drawing.

Figure 1 is a perspective view of a clamp embodying my invention.

Figure 2 is a rear perspective view of the spiral cam detached.

Figure 3 is a transverse section at the line *x x*.

Figure 4 is a longitudinal section of a portion of my clamp.

Figure 5 is a rear view of a modification of my spiral cam.

A A' represent portions of a flask or other article to be clamped.

B and C are the jaws, projecting rectangularly from shanks D and E, of which the shank D is adapted to slide in a groove or channel, F, formed by two flanges, G G', on the front side of the shank E.

The flanges G G' are at their inner ends somewhat more elevated from the front of the shank than at other parts, and are connected by a bridge, H, having a circular boss, I, that enters a corresponding eye or orifice, J, at the centre of a disk, K, armed on its rear side with a spiral thread, L, that gears with a corresponding rack, M, on the front side of the shank D.

The cam-disk K L is centered and held in place on the boss I by means of a screw-bolt, N, and nut O, a washer, P, being interposed between the nut O and the front side of the cam-disk, to permit free rotation

of said disk about the boss I as a center, without loosening or disturbing the nut.

The cam-disk K L is turned either forward or backward at will, by means of its handle Q.

The bridge H, together with its appendages I N O P, is set at sufficient obliquity with the shank E to cause its thread L to enter or engage with the rack M on one side only.

It will be seen that no part of this clamp projects beyond the jaws, and that the means employed for extending or contracting it, or such as, by their friction, to hold the jaws to any specific adjustment without any specific or special contrivance for that purpose.

Instead of making the cam of a single continuous thread, as represented in figs. 1, 2, 3, and 4, it may be composed of two separate threads, as shown at L' L" in fig. 5, and in some cases, if preferred, two, three, or more threads may be employed, and the said threads should be arranged in a manner that will insure one thread engaging before its predecessor has left.

That side of the cam from which the thread L projects may be slightly coned or crowned, instead of flat, as in the present illustration.

Claim.

I claim as my invention—

The relative arrangement of the jaws B and C, projecting from the extremities of their respective shanks D and E, in combination with the cam-disks K L, pivoted to a bridge at the back of one shank, and engaging with a rack, M, at back of the other, when constructed substantially as and for the purposes specified.

In testimony of which invention I hereunto set my hand.

J. J. LEBEAU.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.