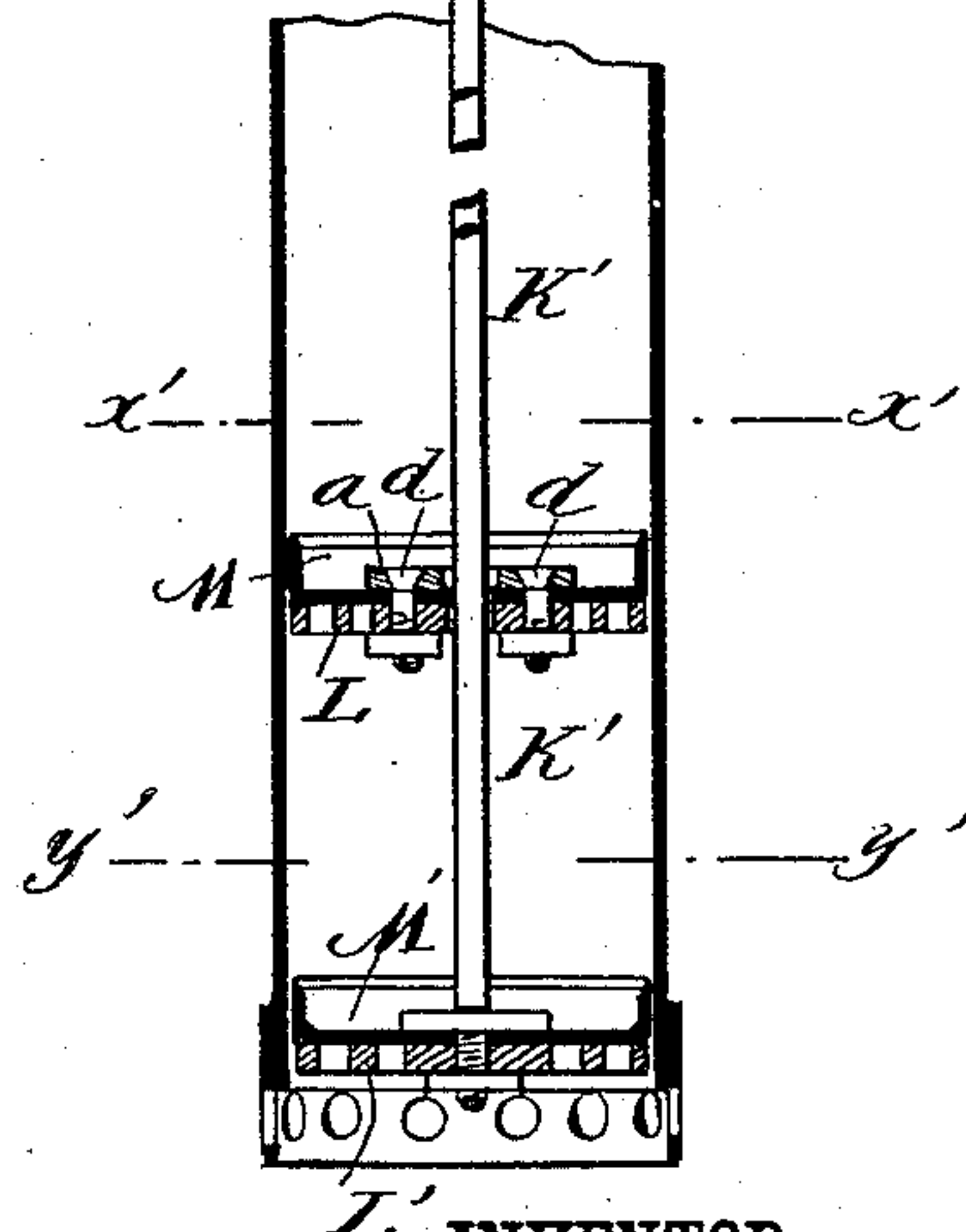
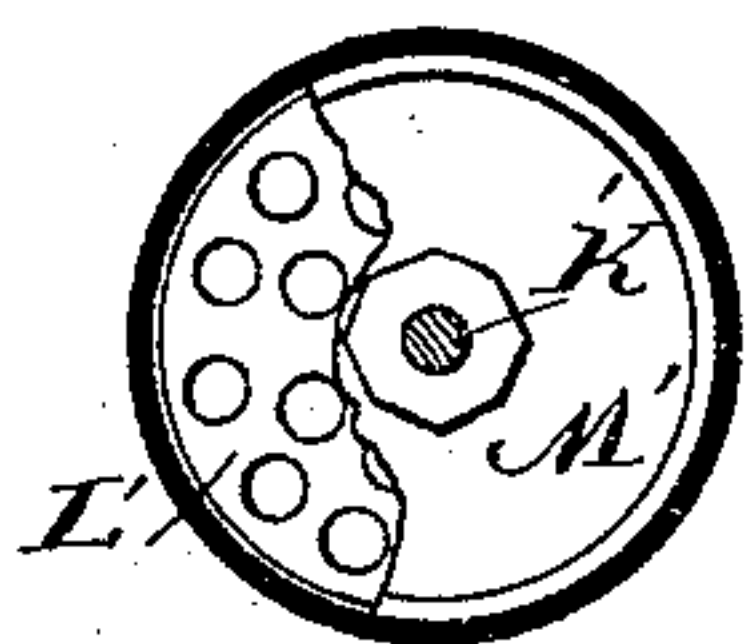
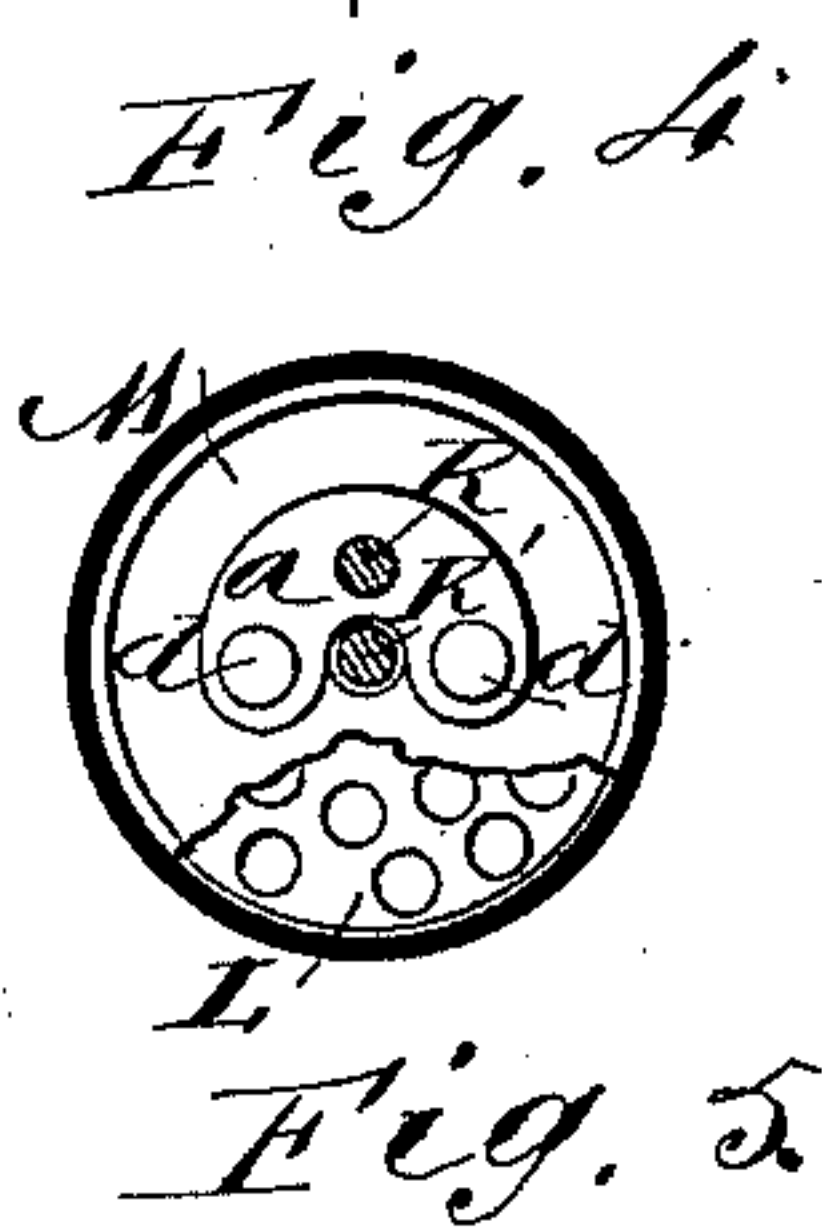
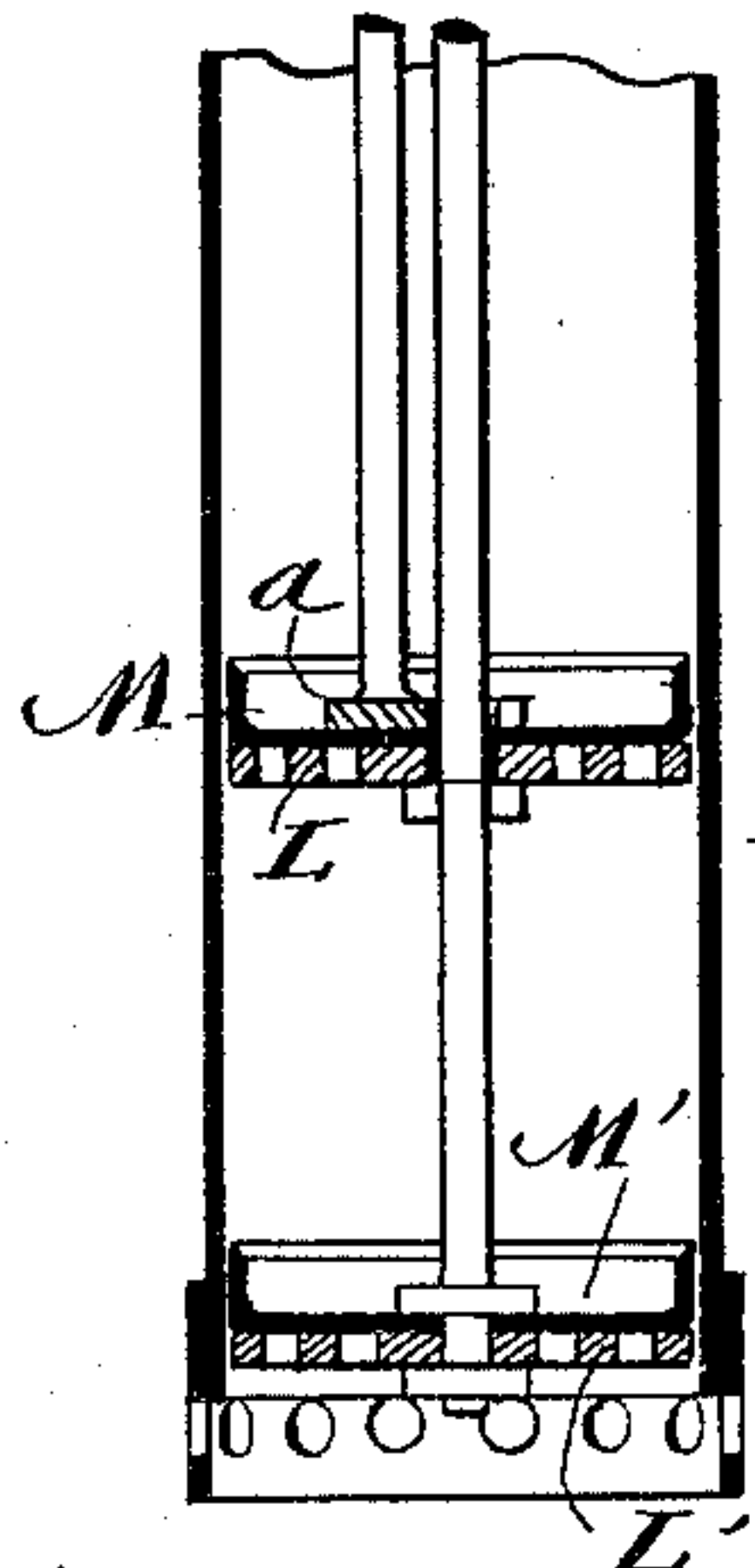
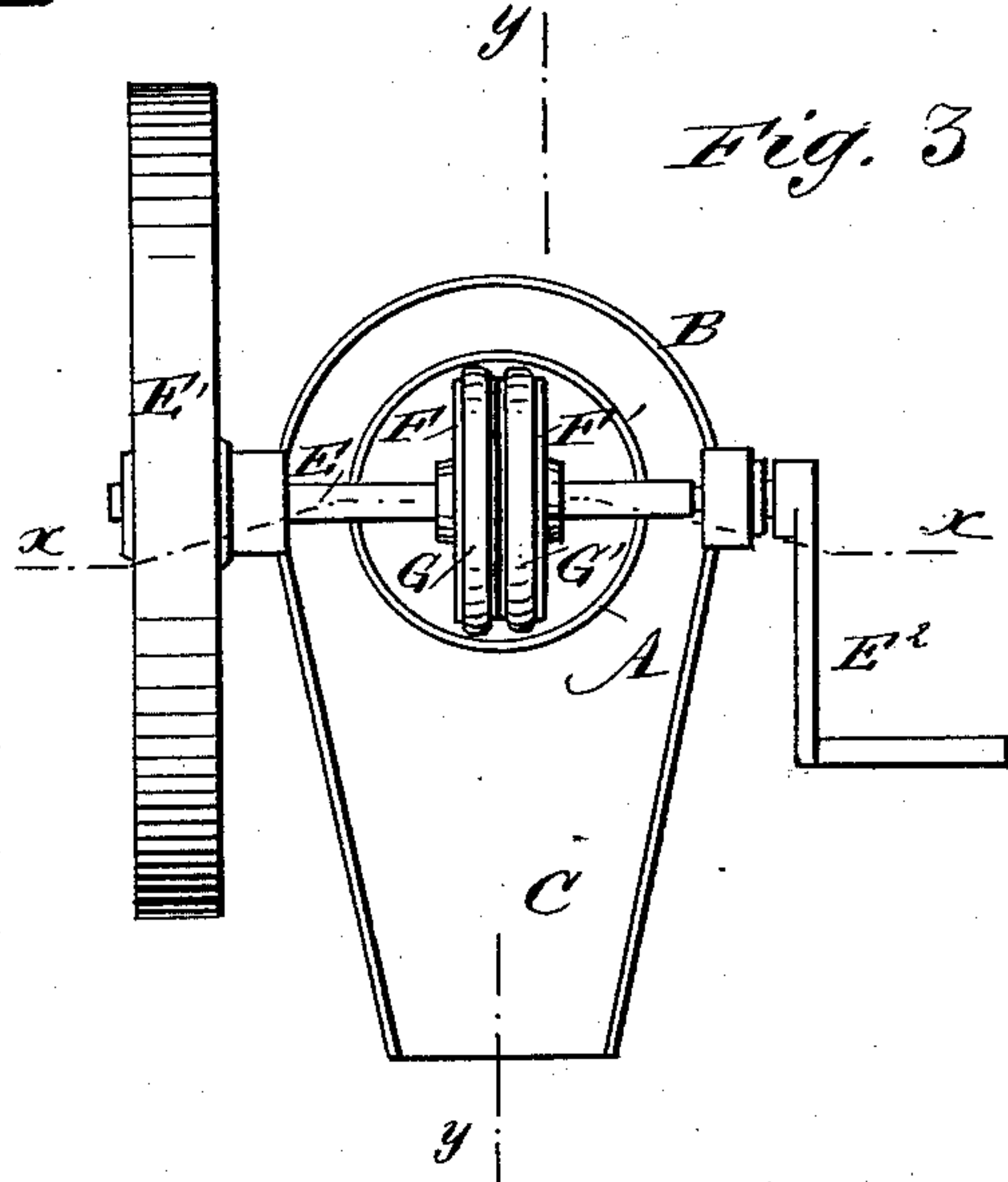
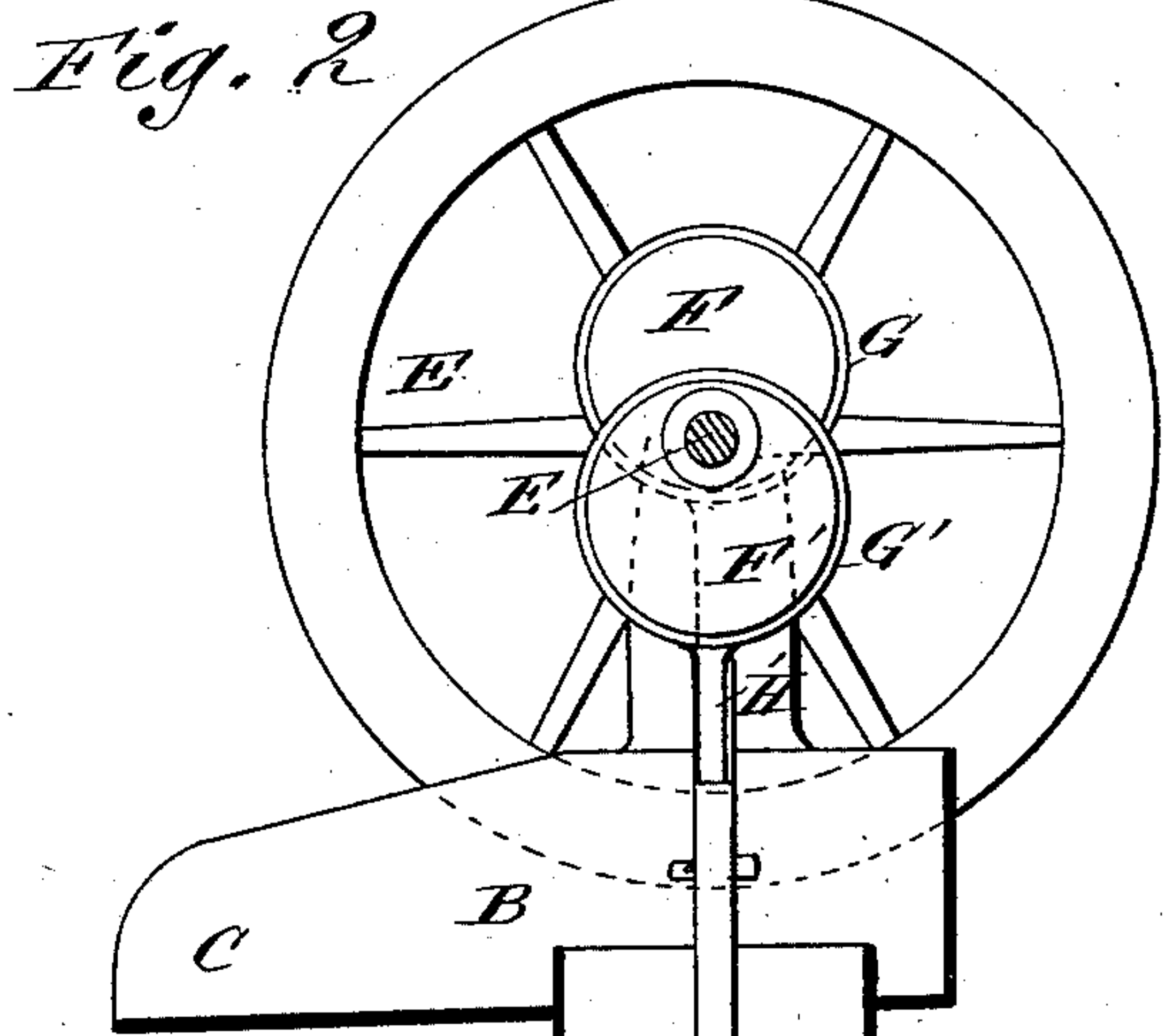
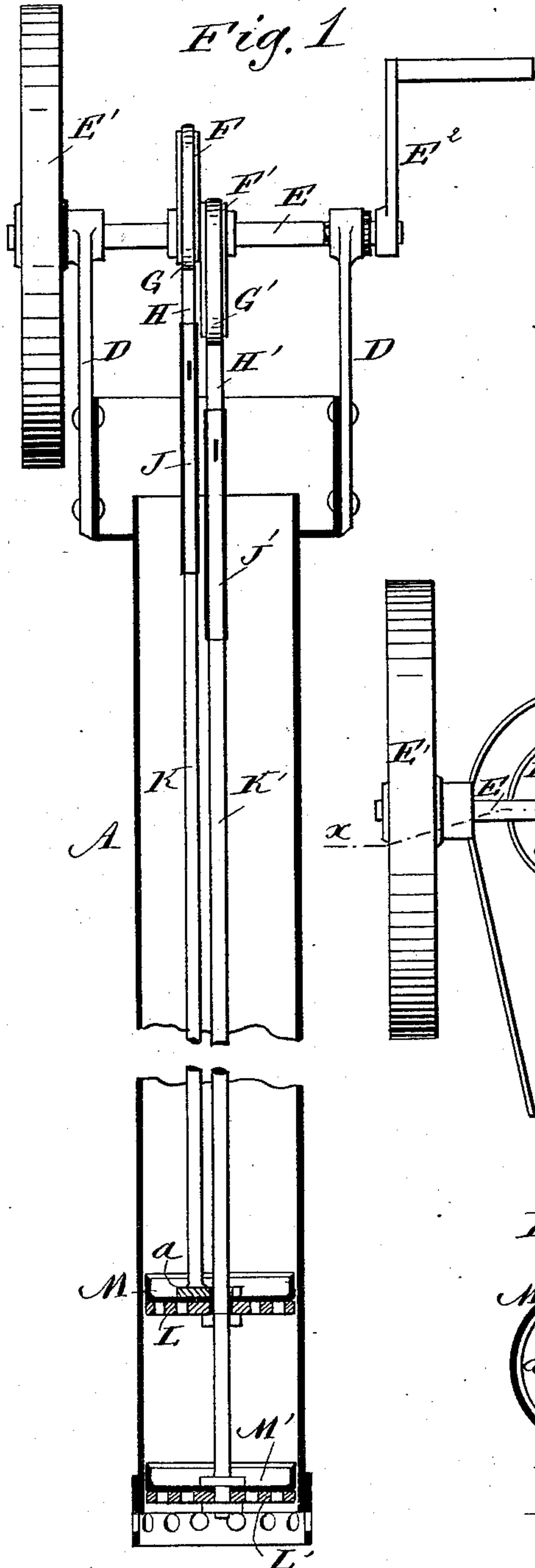


(No Model.)

L. G. CAREAGA Y SAENZ.  
PUMP.

No. 305,997.

Patented Sept. 30, 1884.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

LUIS G. CAREAGA Y SAENZ, OF PUEBLA, MEXICO.

## PUMP.

SPECIFICATION forming part of Letters Patent No. 305,997, dated September 30, 1884.

Application filed May 5, 1883. (No model.) Patented in Mexico November 28, 1882.

*To all whom it may concern:*

Be it known that I, LUIS G. CAREAGA Y SAENZ, of Puebla, Mexico, have invented a new and Improved Pump, of which the following is a full, clear, and exact description.

My invention is an improvement in double-piston pumps; and it consists in the construction and combination of parts, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of my improved pump on the line  $x x$ , Fig. 3. Fig. 2 is a cross-sectional elevation of the same on the line  $y y$ , Fig. 3. Fig. 3 is a plan view of the same. Fig. 4 is a sectional plan view of the barrel on the line  $x' x'$ , Fig. 2, parts being broken out. Fig. 5 is a sectional plan view of the barrel on the line  $y' y'$ , parts being broken out.

A barrel, A, is provided at its upper end with an overjutting reservoir or basin, B, having a spout, C, to the sides of which reservoir two standards, D D, are attached, in the upper ends of which a horizontal shaft, E, is journaled, which is provided at one end with a fly-wheel, E', and at the other end with a crank-handle, E<sup>2</sup>. On the shaft E two circumferentially-grooved disks, F F', are mounted eccentrically and diametrically opposite—that is to say, one projects upward and the other downward from the shaft. Rings G G' surround the grooved peripheries of the disks F F', and are secured to rods H H', the lower ends of which are held in the upper ends of sleeves J J', attached to the upper ends of the pump-rods K K'. To the lower end of the pump-rod K' an apertured disk, L', fitting closely in the barrel, is held, and on the said disk L' a rubber or leather circular valve-plate, M', is held, which valve-plate is provided with an upwardly-projecting annular flange resting against the inner surface of the barrel. The lower end of the pump-rod K is attached to a segmental plate,  $a$ , which is secured on an apertured disk, L, fitting closely

in the barrel, on which apertured disk L a circular flange-plate, M, of rubber or leather, is held, which circular valve-plate is provided with an upwardly-projecting annular flange. The plate  $a$  is held on the valve-plate M and the disk L by means of bolts  $d$ , passing through the plate  $a$ , the valve-plate M, and the disk L. The pump-rod K must necessarily be held eccentrically on the disk L, as the pump-rod K' passes through the middle of the disk L.

The operation is as follows: If the shaft E is rotated by means of the crank E<sup>2</sup>, the apertured disks L and L' will be reciprocated vertically within the pump-barrel, and will be alternately moved toward and from each other. If they are moved toward each other, the water above the valve-plate M' will be forced through the aperture in the disk L, and will raise the valve-plate M and rise above the same, the water being prevented from passing back through the apertures in the disk L by the valve M, the flanges of which will be pressed closely against the sides of the barrel by the water. When the circular disks L L' are moved from each other, a vacuum will be produced between them, which is filled by the water which passes in through the lower disk, L', and raises the valve-plate M', the water being prevented from falling back by the valve M', which acts as a check-valve. At the same time the water above the valve M is raised to the top of the barrel and to the reservoir B, from which it flows through the spout C.

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

The combination, with the rigid piston-disk L and its rod K, which is arranged eccentrically, of the segmental metal plate  $a$ , attached to said disk and rod, and the flanged imperforate rubber plate M, placed between said disk and segmental plate, and left free, except the eccentrically-located portion covered by the latter, all as shown and described, for the purpose specified.

LUIS G. CAREAGA Y SAENZ.

Witnesses:

TSMAN RIVERO,  
ALFRIDO SEROUX.