

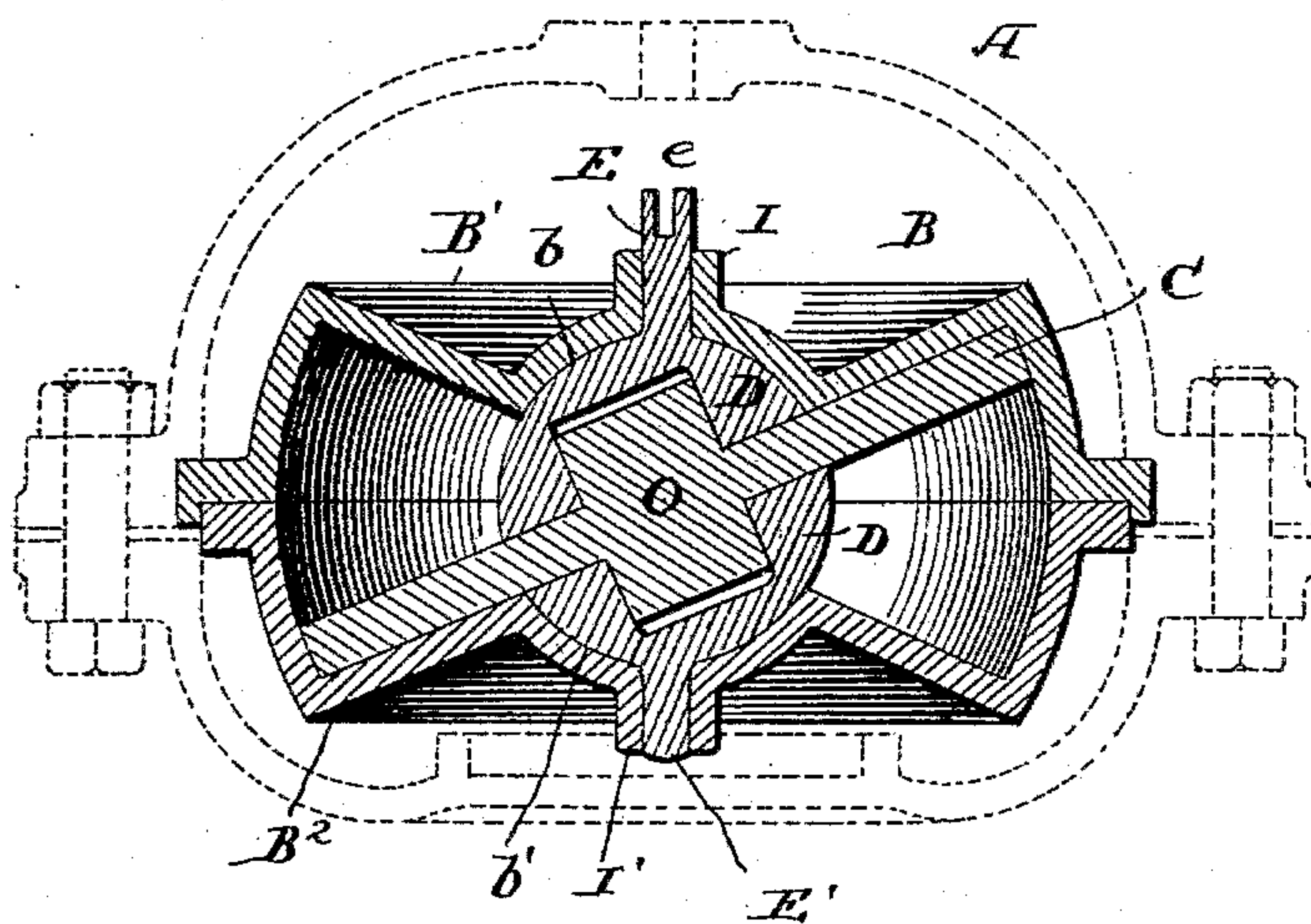
(No Model.)

F. LAMBERT.

MECHANISM FOR CONTROLLING THE ACTION OF OSCILLATING DISKS.

No. 490,026.

Patented Jan. 17, 1893.



Witnesses

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# UNITED STATES PATENT OFFICE.

FRANK LAMBERT, OF BROOKLYN, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE THOMSON METER COMPANY, OF NEW JERSEY.

## MECHANISM FOR CONTROLLING THE ACTION OF OSCILLATING DISKS.

SPECIFICATION forming part of Letters Patent No. 490,026, dated January 17, 1893.

Application filed April 7, 1892. Serial No. 428,167. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK LAMBERT, a citizen of the French Republic, residing at Brooklyn, Kings county, New York, have invented certain new and useful Improvements in Mechanism for Controlling the Action of Oscillating Disks, of which the following is a specification.

My invention relates to oscillating disk actions, such for instance as are commonly used in water meters or as motors or other purposes, and it has for its object to provide means whereby the action of the oscillating disk can be controlled under the varying conditions of the operation of the disk and to these ends my invention consists in a disk having the features of construction and arrangement as well as the mode of operation substantially as hereinafter more particularly pointed out.

Referring to the accompanying drawing, the figure is a longitudinal, vertical section of a device embodying my invention.

It is well known that in the use of oscillating disk actions, substantially as are indicated in the drawing, whether used as a motor or a water meter or otherwise, that it is desirable to have means for controlling the action of the disk so as to maintain the surfaces of the disk in contact with the contiguous parts and my present invention is an improvement or extension of the invention set forth in my application, Serial No. 428,166 filed contemporaneously herewith.

It is not deemed necessary herein to fully set forth the details of arrangement and construction of such a disk action, it being sufficient to say that in the drawing A, represents the outer case of a meter or similar device, while B, represents the disk chamber. This chamber is shown as constructed in two parts, the upper casing B', and the lower casing B'', which are suitably joined together and these parts are made in the form of cone frusta, placed reversely to each other, while the extremities or peripheries of the plates are joined by the central portion of the case in the form of a segment of a circle. Mounted in the disk chamber is the disk C, which is usually formed with a central ball which is

supported in sockets *b, b'*, in the respective cone frusta which permits the disk to vibrate or mutate in the disk chamber. In the present instance, I provide the disk C, with a central hub, pin or enlargement O, which is shown as made integral with the disk and extending equally on each side thereof. The ball in this case is made in two sections D and D', which are fitted to freely move on the pin or projection O, the contiguous faces of the two portions bearing on the corresponding faces of the disk. These ball sections, either one or both, preferably the latter, are provided with extensions E, E', which constitute spindles, and which are mounted in the bearings I, I', and these spindles or pins project from the respective ball sections at angles corresponding to the angle of the frusta of the disk chamber. One of these spindles, as E, may be provided with means, as a notch *e*, whereby it may be connected to drive or be driven by any suitable mechanism in accordance with the purposes of the invention. With this arrangement it will be seen that when the disk moves or mutates in the usual manner, the ball sections will be caused to rotate and the motion can be transmitted to any mechanism, or on the contrary when the ball sections are rotated the motion will be transmitted to the disk and it will mutate in the proper way and in either condition the movements of the disk are properly controlled by the ball sections and their extensions in the bearing operating upon and through the extensions and projections on the disk.

While I have shown the preferred embodiment of this invention, the details of construction may be varied by those skilled in the art without departing from the spirit of the invention, and I therefore do not limit myself to the precise construction and arrangement shown.

What I claim is:

1. The combination with the disk chamber and disk therein, of the independent ball sections arranged between the disk and disk chamber, substantially as described.
2. The combination with the disk chamber and disk therein, the disk being provided with integral projections, of the independent ball



sections arranged on the disk, substantially as described.

3. The combination with the disk chamber and disk having projections, the independent  
5 ball sections loosely mounted in the disk, one of the sections having an extended spindle, substantially as described.

4. The combination with the disk chamber, of the disk having lateral projections, the  
10 ball sections having recesses and fitting over the projections and loosely mounted thereon,

one or both of the ball sections being provided with a spindle having bearings in the disk chamber, substantially as described.

In testimony whereof I have signed my  
15 name to this specification in the presence of two subscribing witnesses.

FRANK LAMBERT.

Witnesses:

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