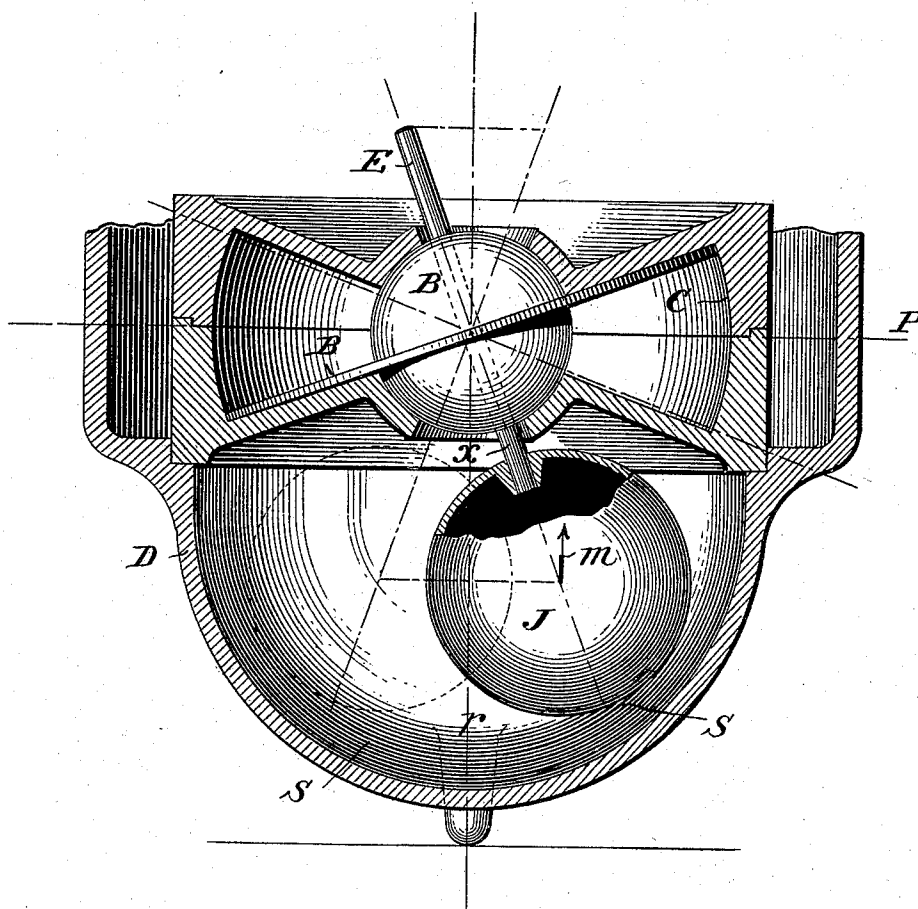


(No Model.)

J. THOMSON.
MEANS FOR CONTROLLING ACTION OF OSCILLATING DISKS IN
WATER METERS.

No. 535,640.

Patented Mar. 12, 1895.



Witnesses
Prof. Hinkel
J. A. Fairgrave.

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UNITED STATES PATENT OFFICE.

JOHN THOMSON, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE NEPTUNE
METER COMPANY, OF NEWARK, NEW JERSEY.

MEANS FOR CONTROLLING ACTION OF OSCILLATING DISKS IN WATER-METERS.

SPECIFICATION forming part of Letters Patent No. 535,640, dated March 12, 1895.

Application filed April 18, 1894. Serial No. 508,001. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMSON, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Means for Controlling the Action of Oscillating Disks in Water-Meters, of which the following is a specification.

This invention relates to disk water meters, and consists of means for controlling the action of the oscillating disks in water meters by the employment of suitable apparatus actuated by flotation.

In the single figure of the drawing, B represents the ball and disk; C, the disk-casing; E, the disk spindle, and D a main casing of such a "disk action" as might be applied to water meters; the connecting gear train and the ports of ingress and egress being omitted.

As shown, the disk-spindle passes entirely through the ball; its lower end, x , being connected to the hollow sphere J, which is to be sealed against the introduction of water and so proportioned as to effect a sufficient displacement to be actively buoyant. Hence, as the sphere constantly tends to rise, denoted by the arrow m , it will exert a constant power upon the disk to cause it to rotate in contact with the frustums of the casing. Obviously, the sphere will also act to partially or wholly relieve the sockets of the weight of the ball and of the disk. Moreover, if particles of foreign material should be introduced between the disk and the frustums, the disk and ball will vibrate and pass over the same, thus causing the sphere to swing inwardly toward

the center line r ; but immediately the obstruction is passed, the sphere will again float outward and upward, re-setting the disk to its normal position.

It is to be observed the correct operation of this device involves that the sphere shall be disposed below the disk operating in a water chamber, as S, and that the medium line P, of the disk casing shall lie in a horizontal plane.

While I prefer the use of a hollow metallic sphere, it will be apparent that the form may be varied and that its equivalent, such as a float constructed of wood or cork, would also effect the same result.

What I claim is—

1. In a disk water meter, an oscillating disk provided with a buoyant device attached to a projecting end of the disk spindle, said device operating in a water chamber extraneous to the disk-casing, the arrangement and construction being such that the disk is caused to adhere to the frustums by flotation, substantially as described.

2. The combination with a disk-casing, disk, ball and spindle, of a buoyant device as a hollow sphere connected to a projecting end of the spindle and operating in a water chamber extraneous to the disk-casing, substantially as described.

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

JOHN THOMSON.

Witnesses:

EVERETT L. ABBOTT,
JOHN MCKINNON.