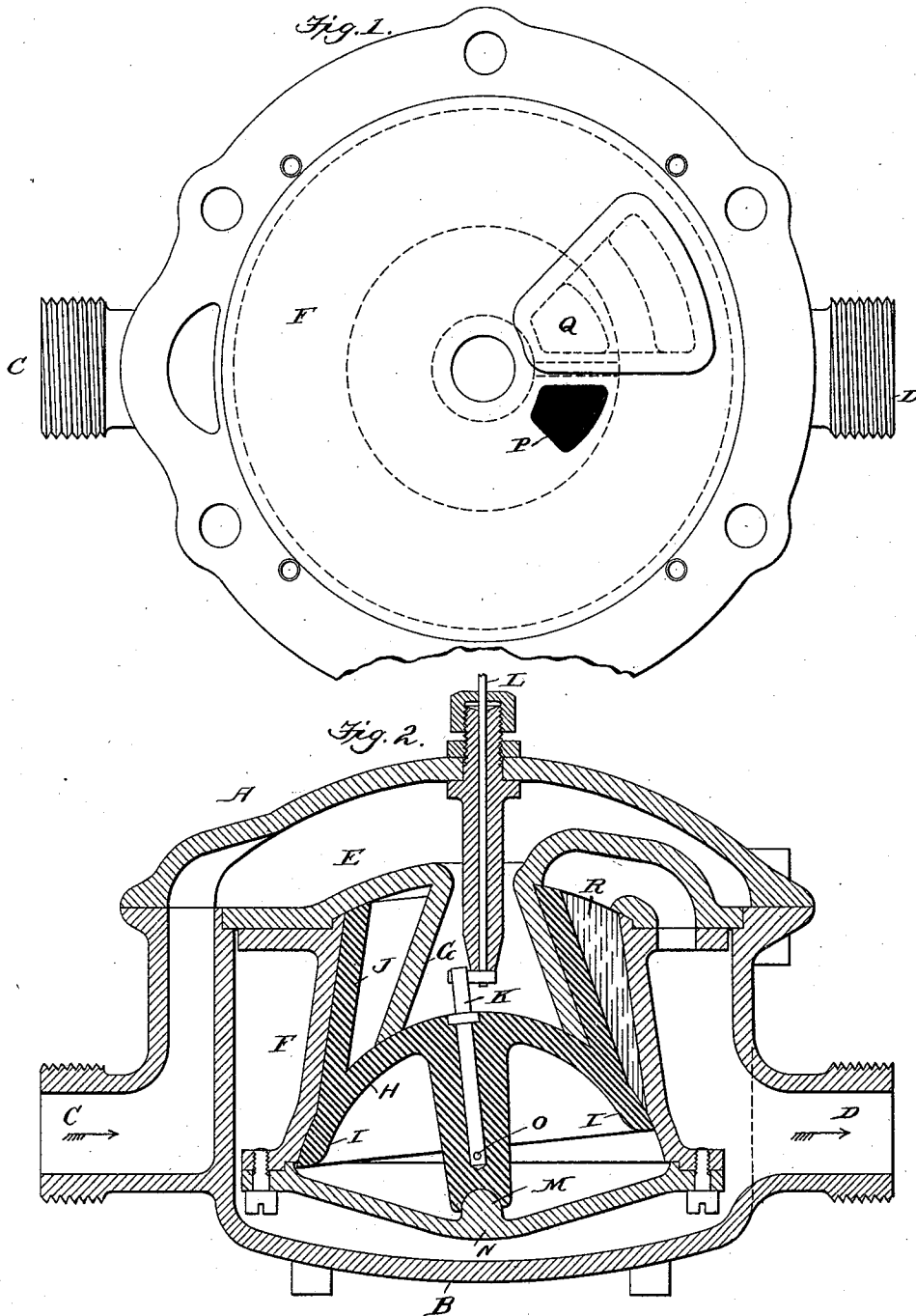


(No Model.)

L. H. NASH.
WATER METER.

No. 562,147.

Patented June 16, 1896.



WITNESSES:

Wm. W. Lowery
Edwin L. Bradford

INVENTOR

Lewis H. Nash
BY
John A. Johnson
His ATTORNEYS.

UNITED STATES PATENT OFFICE.

LEWIS HALLOCK NASH, OF SOUTH NORWALK, CONNECTICUT, ASSIGNOR TO
THE NATIONAL METER COMPANY, OF NEW YORK, N. Y.

WATER-METER.

SPECIFICATION forming part of Letters Patent No. 562,147, dated June 16, 1896.

Application filed January 13, 1894. Serial No. 496,735. (No model.)

To all whom it may concern:

Be it known that I, LEWIS HALLOCK NASH, a citizen of the United States, residing at South Norwalk, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Water-Meters, of which the following is a specification.

In an application filed by me on December 23, 1893, Serial No. 494,559, I have described in general terms the meter shown in the accompanying drawings and have broadly but not specifically claimed the form here shown.

The following is a description of the accompanying drawings:

Figure 1 is a top view of a meter with the cover removed; and Fig. 2 is a vertical section through the same, the cover being in place.

The following is a description of the structure illustrated in the drawings:

A is the upper case, and B the lower case, of the meter.

C is the inlet-spud, and D the outlet-spud.

The meter-chamber proper is formed by a plate E, having a spherical interior surface, by a plate F, forming a conical surface with its apex upward, and a plate G, forming another conical surface with its apex upward. The piston is composed of a ball H, having a circumferential joint-forming flange I I, and provided with a displacing-flange J, forming a cone with its apex upward.

K is a pin projecting from the ball-bearing of the piston, operating through the spindle L the registering mechanism of the meter.

The piston is supported on a spherical projection M from the plate N.

O is a pin to fasten the pin K in position.

R is a diaphragm or abutment which the piston is slit to straddle.

The water enters through the spud C, passes through the inlet-port P, Fig. 1, thence through the meter-chamber, causing the piston to move with a motion of nutation, and thence out through the outlet-port Q and the outlet-spud D.

It will be observed that both of the conical

surfaces F and G of the measuring-chamber have their apices upward, as has also the conical piston J. The conical piston J with its apex upward might be used in connection with a measuring-chamber having the end surfaces F and G differently arranged and related than they are in the drawings. I have shown a piston with a spherical joint-forming flange extending the entire way around the displacing-flange of the piston, but, if preferred, this flange might be reduced to a radial extension under the abutment, substantially as shown by me in a pending application filed March 21, 1893, bearing Serial No. 467,008.

Various other modifications might be made without departing from the spirit of my invention and without exceeding the scope of the concluding claims.

Many of the details illustrated and above described are not essential to the several features of my invention. This will be indicated in the concluding claims where the omission of an element or the omission of reference to the detail features of the elements mentioned is intended to be a formal declaration of the fact that the omitted elements or features are not essential to the inventions therein severally covered.

What I claim is—

1. In a nutating-piston water-meter, the combination with a suitable case of a conical piston having a motion of nutation, the base of the cone resting on the spherical surface of the piston.

2. In a nutating-piston water-meter, the combination of a piston and a case having a spherical surface and opposite side surfaces, both of said side surfaces being conical with their apices upward, the piston also being conical with the base of the cone resting on the spherical surface of the piston.

LEWIS HALLOCK NASH.

Witnesses:

J. EDGAR BULL,
M. WILSON.