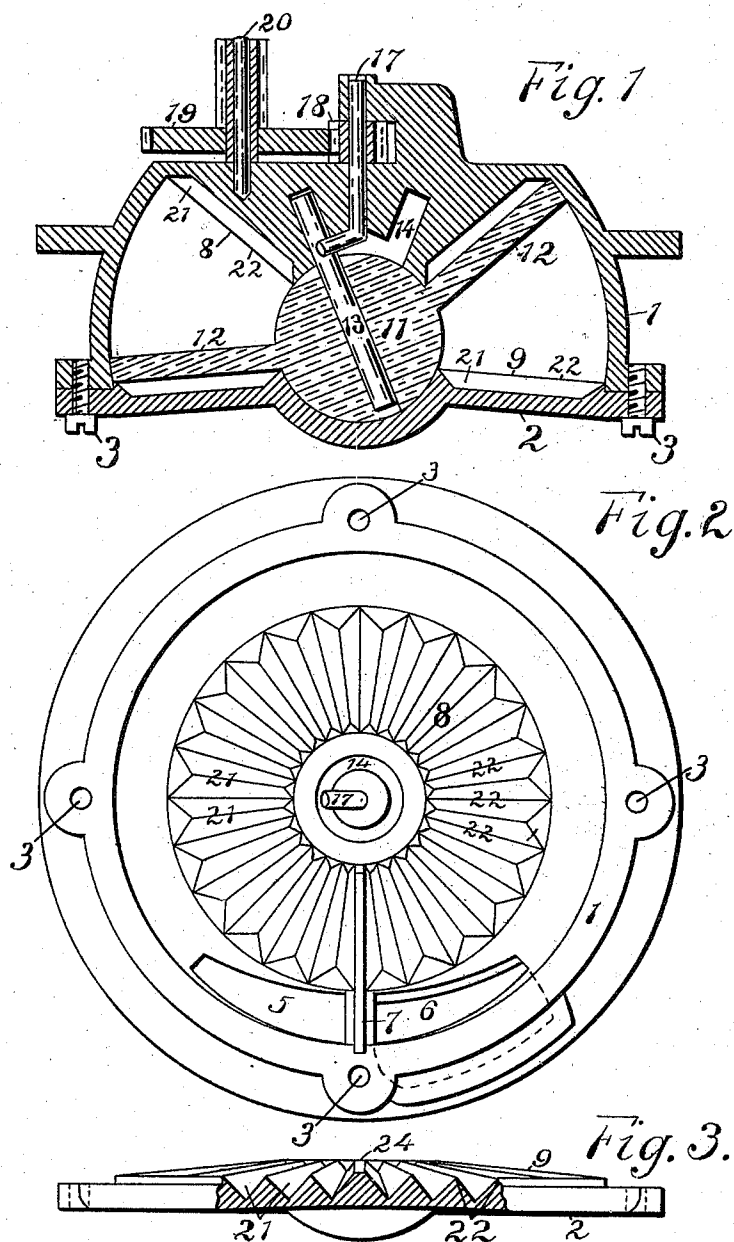


(No Model.)

G. B. BASSETT.
WATER METER.

No. 576,248.

Patented Feb. 2, 1897.



Witnesses
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GEORGE B. BASSETT, OF BUFFALO, NEW YORK.

WATER-METER.

SPECIFICATION forming part of Letters Patent No. 576,248, dated February 2, 1897.

Application filed August 5, 1895. Serial No. 558,325. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. BASSETT, of Buffalo, New York, have invented a new and useful Improvement in Water-Meters, which improvement is fully set forth in the following specification.

This invention relates to improvements in water-meters, and more particularly to disk water-meters of that class shown in Letters Patent No. 501,203, granted to me on the 11th day of July, 1893.

The objects of my present invention are principally to improve the construction and arrangement of the disk and disk-chamber, and other points in the construction of these meters, for the purpose of reducing the cost of manufacture, allowing the more ready assemblage and separation of parts, increasing the durability and efficiency, and other advantageous results.

I will now proceed to definitely describe the manner in which I have carried out my invention and then claim what I believe to be novel.

In the drawings, Figure 1 is a central vertical section of my improved disk and disk-chamber. Fig. 2 is a bottom view of the disk-chamber with disk and bottom cone removed, so as to show the interior. Fig. 3 is a side view of the bottom cone or plate of the disk-chamber, partly in section.

The disk-chamber in use sets in an outer surrounding case, on which is mounted the indicator. The outer case and indicator not forming a part of this invention are not shown in the drawings, but may be of any convenient form, as shown in the aforesaid Letters Patent No. 501,203.

Referring to the drawings, the disk-chamber is formed of the parts 1 and 2, held together by screws 3. In the spherical side wall of part 1 are located the inlet and outlet ports 5 and 6, between which is permanently secured the diaphragm or partition 7.

The interior ends of the disk-chamber are formed by the upper cone 8 and lower cone 9, and at the apex of each is a spherical socket forming bearings for the ball of the nutating measuring-disk.

The measuring-disk consists of the spherical ball 11 and the smooth web 12. Pin 13 is

permanently fastened into ball 11 and is controlled in its circular path by the slot 14 in cone 8.

On the upper part 1 of the disk-chamber is mounted the intermediate gearing. The lower part of shaft 17 is bent and engages with pin 13. Pinion 18 is permanently fastened to shaft 17 and engages intermediate gear and pinion 19, which rotates on pin 20, permanently fastened in top of part 1, and engages the gearing on stuffing-box spindle and indicator. (Not shown.)

On the conical surfaces of both end cones 8 and 9 are formed the recesses 21, between which are the radial ribs 22, that come in or nearly in contact with the smooth web 12 of the measuring-disk, thus forming, with the recesses 21, a water-packing between the web and cones.

Another object of the depressions 21 and ribs 22 is that they very materially lessen the liability of foreign substances, as sand or gravel, catching between the web of the disk and cones 8 and 9 and blocking the action of the disk.

The inner surface of the spherical side wall of the disk-chamber, in which the inlet and outlet-ports 5 and 6 are formed, is smooth. In Fig. 3 a portion of the lower cone is cut away, showing the recesses 21 and ribs 22 in section. While it is not essential to the purposes of my invention that the recesses or the ribs 21 and 22 should be of the exact form shown, it is essential that the ribs 22 should be at least approximately radial in order to best perform their joint-forming function with the smooth disk.

At 24 (see Fig. 3) the top of the rib is flattened to form an abutment for the diaphragm and make a tight joint between the cone and diaphragm when the parts are put together.

While I have shown and described the ends of the disk-chamber as cones, it is not essential to the spirit of my invention that they should be so. For instance, the inner surface of part 2, on which are located the recesses 21 and ribs 22, might be flat, or even dishing, without departing from the spirit of my invention. In either of these cases the disk would of course need to be of suitable corresponding shape.

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

1. In a disk water-meter, a disk-chamber
5 having its end or ends provided with a multiplicity of recesses, each of small circumferential extent, to form a water-packing and to prevent sand or other sediment from catching between the web of the disk and the end wall
10 or walls of the disk-chamber, the walls of said recesses being rigid or unyielding.

2. In a disk water-meter, a disk-chamber having its end or ends provided with recesses and radial or nearly radial rigid or unyielding ribs, substantially as and for the purpose
15 described.

3. In a disk water-meter the combination with a nutating measuring-disk the web of which has a smooth surface, of a disk-chamber
20 having its end or ends provided with a multiplicity of recesses, the walls of said recesses being rigid and unyielding, substantially as set forth.

4. In a disk water-meter, the combination
25 with a nutating measuring-disk the web of which has a smooth surface, of a disk-chamber having its ends provided with radial or nearly radial rigid or unyielding ribs, substantially as and for the purpose described.

30 5. In a disk water-meter, the combination

with a disk-chamber having the inner walls of its end or ends provided with a multiplicity of recesses each of small circumferential extent, the walls of said recesses being rigid and unyielding, of a disk the web of which
35 has a smooth surface which latter is adapted to come in contact or nearly in contact with the outer surfaces of the walls of said recesses, substantially as and for the purpose set forth. 40

6. In a disk water-meter, the combination with a disk-chamber having its end or ends provided with radial or nearly radial rigid or unyielding ribs, of a disk having a web with a smooth surface which latter is adapted to
45 come in contact or nearly in contact with the top or outer surfaces of said ribs, substantially as set forth.

7. In a disk water-meter, a disk-chamber having the inner walls of its end or ends provided with a multiplicity of recesses, the walls of said recesses being rigid and unyielding, substantially as set forth. 50

In testimony whereof I have signed this specification in the presence of two subscribing witnesses. 55

GEORGE B. BASSETT.

Witnesses:

GEO. ADSIT,

M. E. WARWICK.