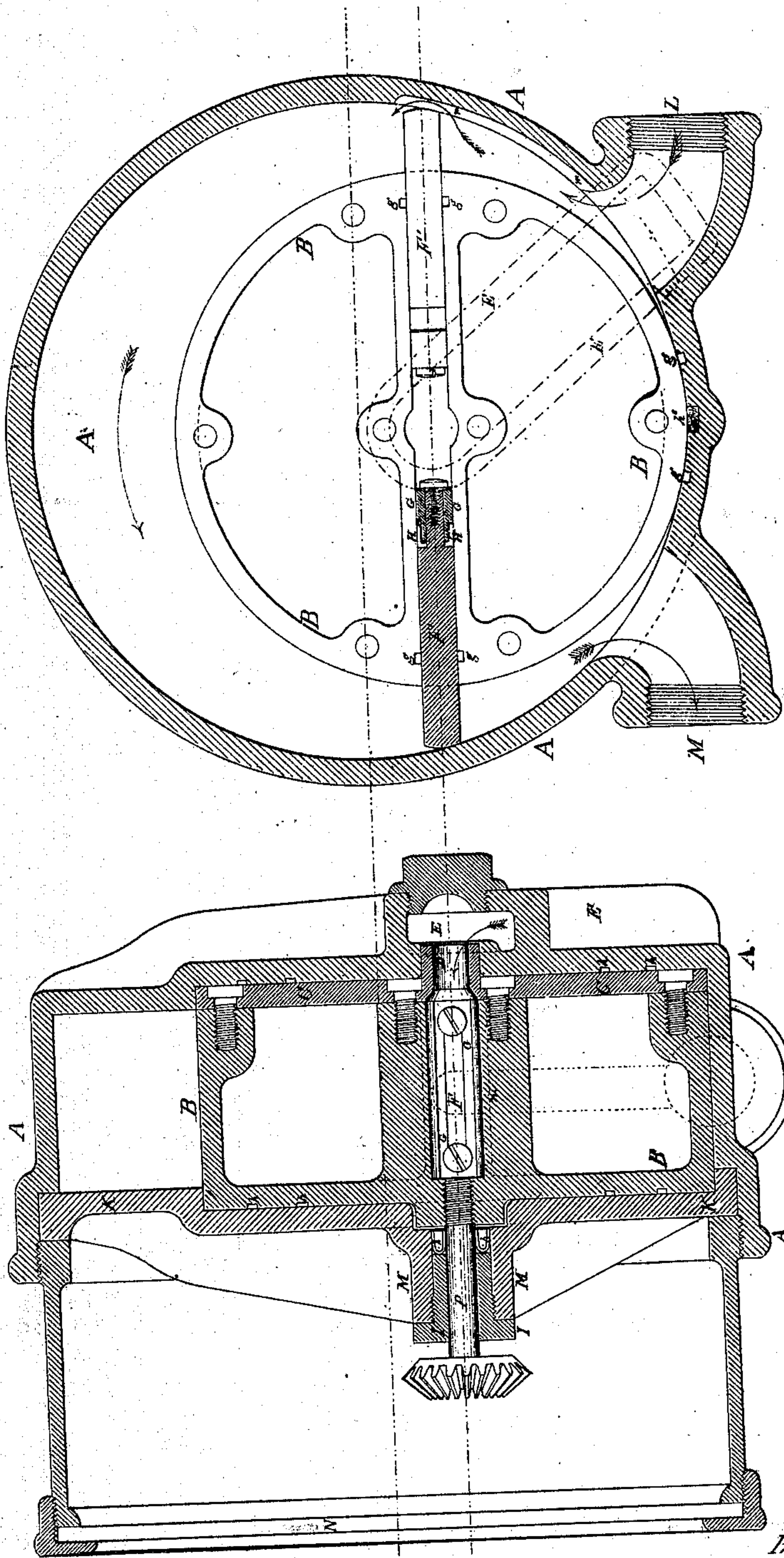


G. Sewell,

Water Meter.

No. 106103.

Patented Aug. 2. 1870.



Witnesses.
Alfred O. Blaisdell
John V. Van Doren

Inventor.
G. Sewell

United States Patent Office.

GEORGE SEWELL, OF BROOKLYN, NEW YORK.

Letters Patent No. 106,103, dated August 2, 1870.

IMPROVEMENT IN METERS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, GEORGE SEWELL, of Brooklyn, in the county of Kings and State of New York, have made certain new and useful Improvements in Apparatus for Measuring Water and other Liquids. I hereby declare the following to be a full and exact description of the same, reference being had to the annexed drawing which forms part of this specification, in which—

Figure 1 is a plan view, partly in section, showing the interior of the apparatus; and

Figure 2 is a similar vertical section.

The same letters indicate like parts in both figures.

My invention consists in certain improvements in water-meters of the kind described in patent No. 7,075, issued to William Sewell, February 5, 1850.

Description of the Apparatus.

The outer cylinder or case A A has the inner drum or revolving cylinder B B, with wings, F F.

The drum B B has its journals fixed eccentric to the case A, so that the drum B B is tangential to the case A A, between the openings L and M, by which the liquid to be measured enters and leaves the machine. These parts are substantially the same as found in all similar machines.

The axle of drum B is hollow, as shown at D, and connects with the channel E E, which is a branch from the induction-pipe L, so as to admit the liquid, and, by hydrostatic pressure, to act against the ends of the wings F F, and keep them pressed against the inner walls of case A as drum B B revolves.

Heretofore, it has been usual to employ a spring to keep the wings against the cylinder A. But my arrangement, by hydrostatic pressure through the channel E E D, gives a steady uniform pressure, so as to keep the wings always pressed against the walls of case A. Only two wings are necessary, but it is obvious that a larger number may be employed, all operated by the hydrostatic pressure in channel E E D.

That the wings F F may move water-tight in their channels, they are packed.

G is the follower to packing H H, on the ends of the wings F F, and

I is follower to packing on stuffing-box shaft P, which carries a bevel-gear to connect with any suitable registering device, such as ordinarily used for that purpose.

The registering devices are inclosed in a box with glass cover, N, and bottom K K, which form the top of case A A.

Channels, *h h* and *g g*, are formed between the moving parts, for the purpose of water-packing.

h' is packing between the cylinders A A and B B, at their tangent-point. In order to form a greater bearing-surface at this point, the cylinder A A is cut away, as shown, so that these cylinders are in contact for more than the distance between the grooves *g g*, on both sides of packing *h'*.

When the wings F are just past the entrance L, there would not be sufficient pressure to keep the wings moving. Therefore, to continue the pressure on both wings, a groove or channel, *m m*, is formed on the inside of the walls of A A, near L, so as to admit the full pressure of water to both wings for any desired distance, thereby securing certainty of action in the revolving cylinder B B.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The channel E E from induction-pipe L to hollow gudgeon D, so as to keep the wings F F extended, and in contact with cylinder A A, by means of liquid pressure, substantially as set forth and described.

2. The groove or channel *m m*, so as to admit the full water-pressure to both wings, as and for the purpose set forth.

GEO. SEWELL.

Witnesses:

HENRY H. PRENTISS,
JOHN A. WALLACE.