

2 Sheets--Sheet 1.

G. WINZER & R. D. BLAND.
Water-Meters.

No. 166,175.

Patented July 27, 1875.

Fig. 1

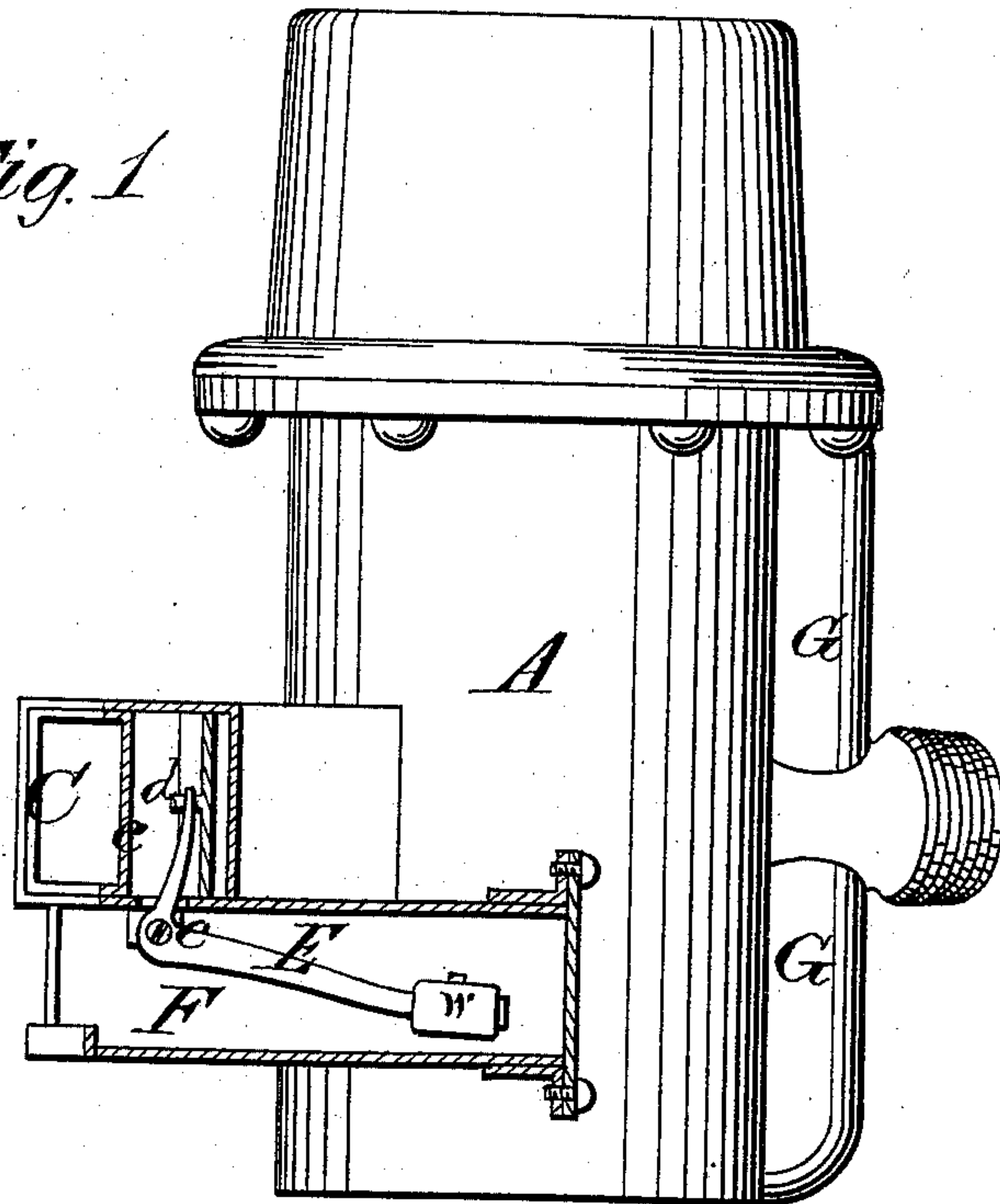
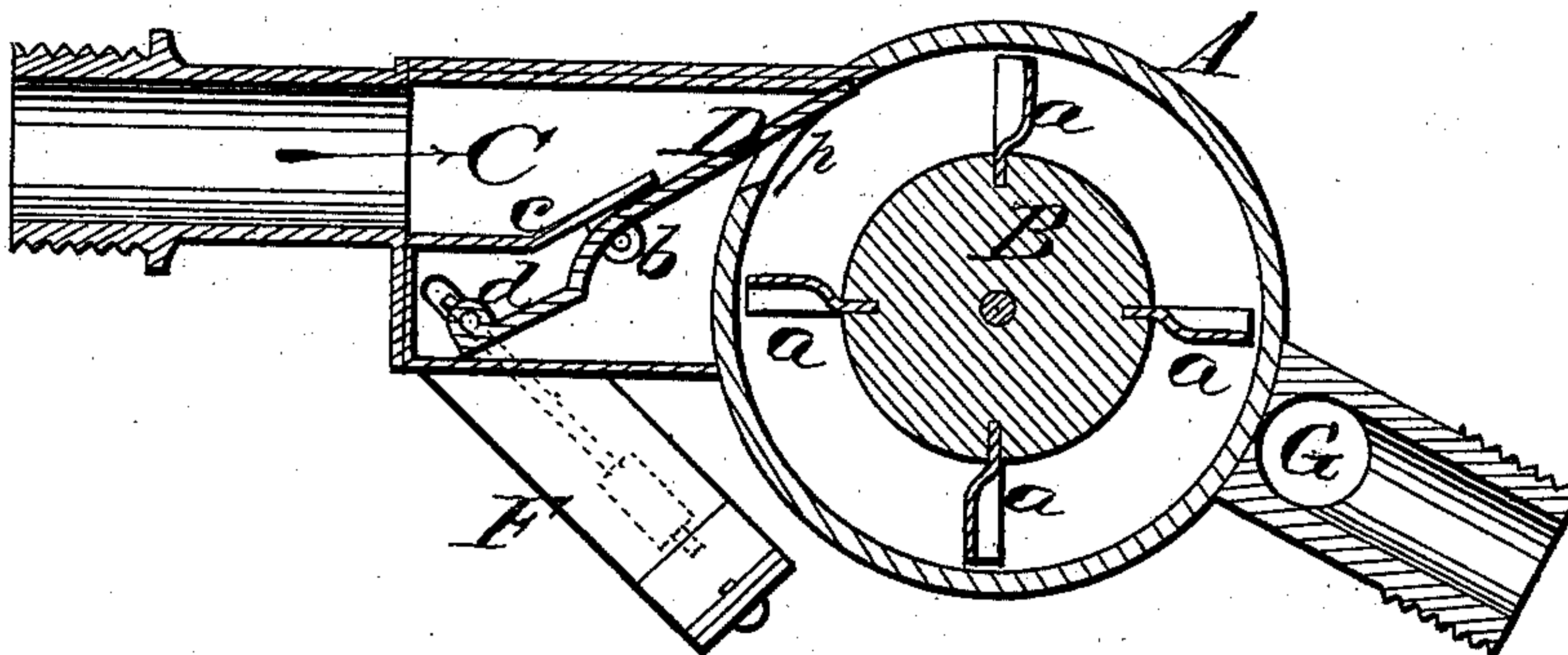


Fig. 2



WITNESSES

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Fig. 3

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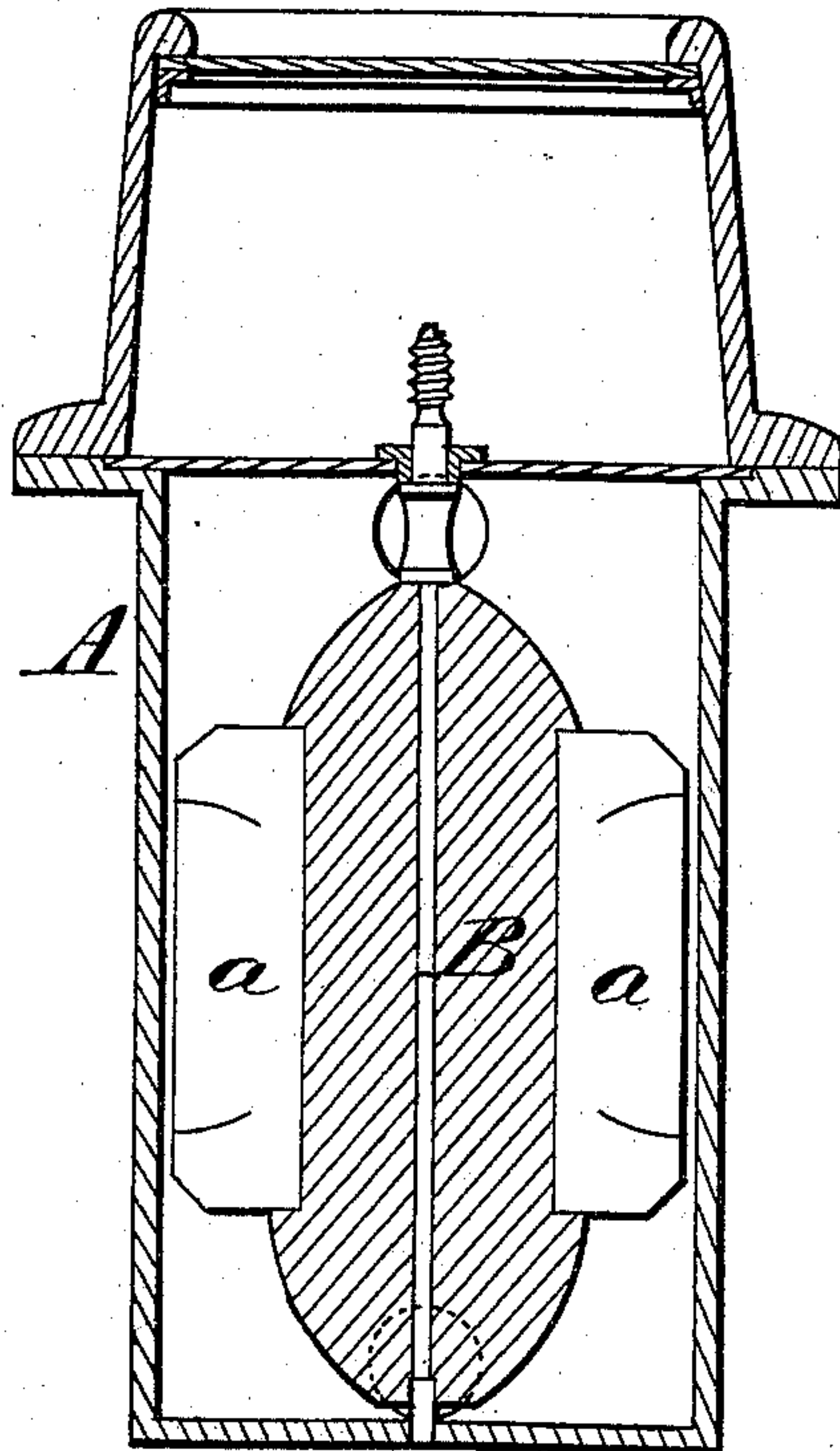
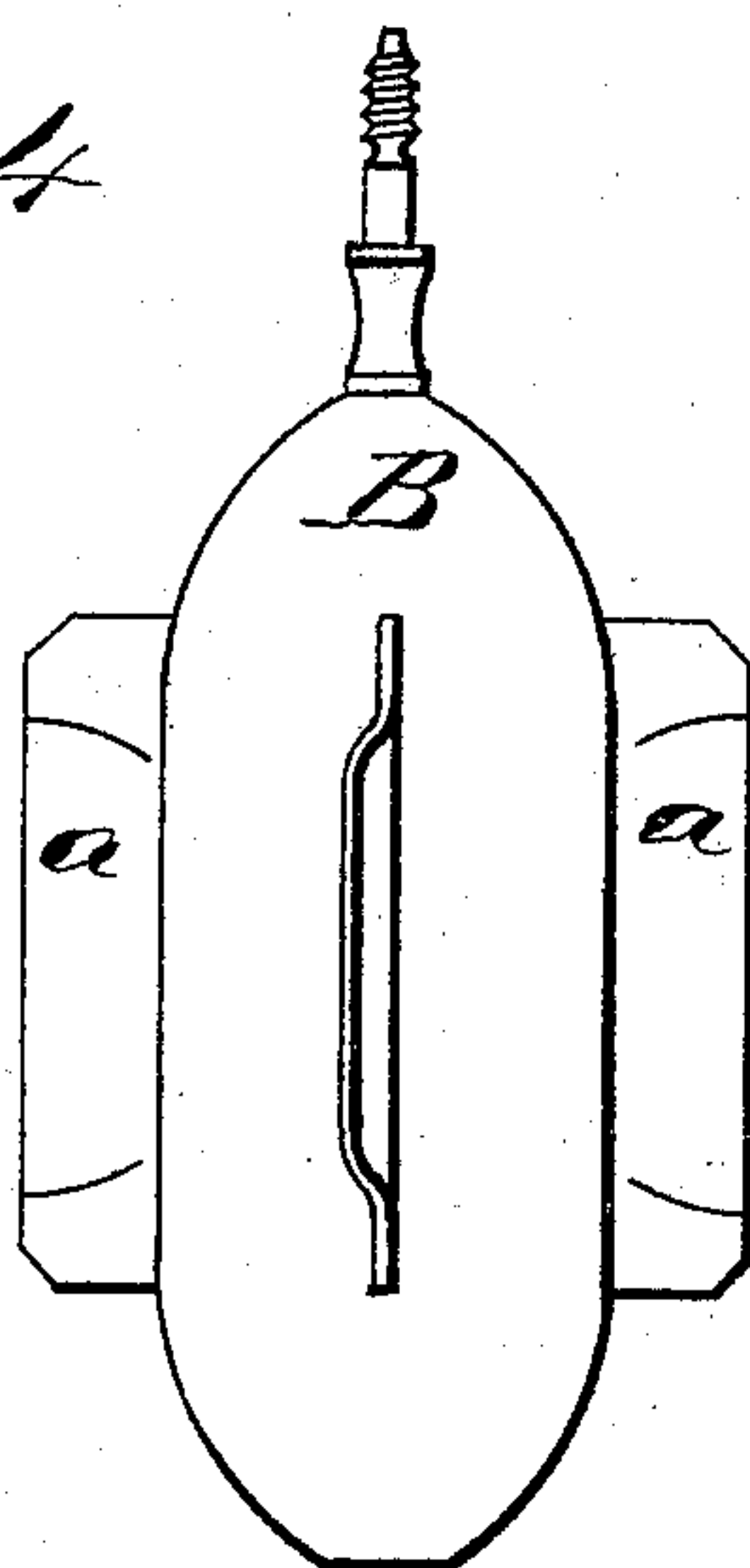


Fig. 4



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UNITED STATES PATENT OFFICE.

GEORGE WINZER AND RICHARD D. BLAND, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN WATER-METERS.

Specification forming part of Letters Patent No. **166,175**, dated July 27, 1875; application filed January 9, 1875.

To all whom it may concern:

Be it known that we, GEORGE WINZER and R. D. BLAND, of St. Louis, in the county of St. Louis and State of Missouri, have invented certain new and useful Improvements in Water-Meters; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, where—

Figure 1 is a front elevation, part sectional, of our water-meter. Fig. 2 is a horizontal sectional view, and Fig. 3 is a vertical sectional view, of the same. Fig. 4 is a detail view.

The object of our invention is to improve the water-meter which is described in the schedule annexed to the Letters Patent numbered 138,697; and the nature of our invention and improvement consists in applying to the inlet-valve a lever having an adjustable weight on it, whereby a more certain and positive action of the valve is secured, as will be understood from the following description.

In the annexed drawings, A designates the case of a bucket-wheel, B, which is stepped on the bottom of the case, and which has a worm-screw on its upper end for actuating any suitable mechanism which will register the flow of water through the case. The wheel B is ellipsoidal, and the buckets or blades *a* are curved, as shown in Fig. 4. C designates a tube, through which water enters the case.

A and D designate a valve, which crosses the tube C obliquely, and is pivoted at *b* on one side of an oblique division-plate, *c*. This valve has an eye, *d*, on its outer or tail end, which receives loosely the upturned end of an angular lever, E, which is pivoted at *e* in a chest, F, and provided with an adjustable weight, *w*. The ends of the chest F are tightly closed, and the outer end of the chamber in which valve D is pivoted is also closed. When water is not flowing through the meter-case the valve D will assume a position tangent to the inner circumference of the case, as shown in Fig. 2; and when the meter is in operation the valve D will open the port *p* more or less, according to the water flow. The water escapes from the case A, near its ends, by means of water-ways G G.

What we claim as new, and desire to secure by Letters Patent, is—

The case A, provided with port *p* and induction-pipe C, in combination with the chest F, obliquely-arranged valve D, and lever E, having at its outer end an adjustable weight, *w*, operating substantially as and for the purpose set forth.

In witness whereof we have hereunto affixed our hands in the presence of two witnesses.

GEO. WINZER.

RICHARD D. BLAND.

Attest:

JOHN C. ZALLÉE,
W. J. HEUSKA.