H. C. AHRBECKER.

Rotary Water Meter.

No. 196,411. Patented Oct. 23, 1877.

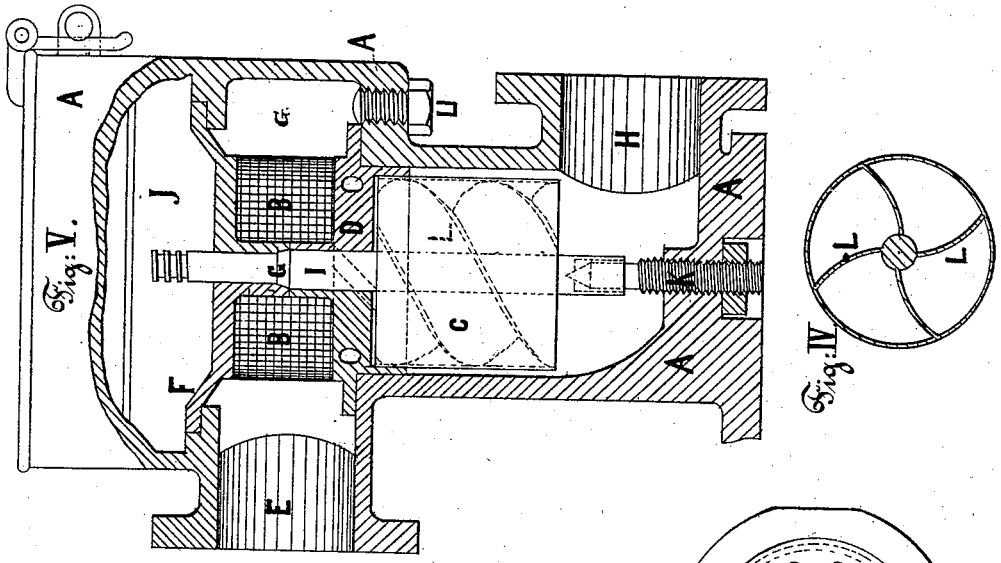

Fig: V.

Fig: IV.

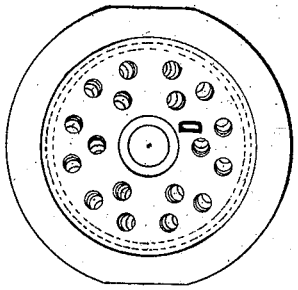

Fig: III.

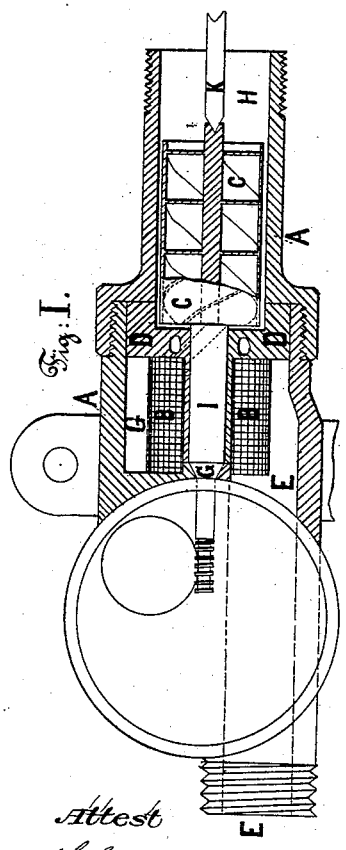

Fig: I.

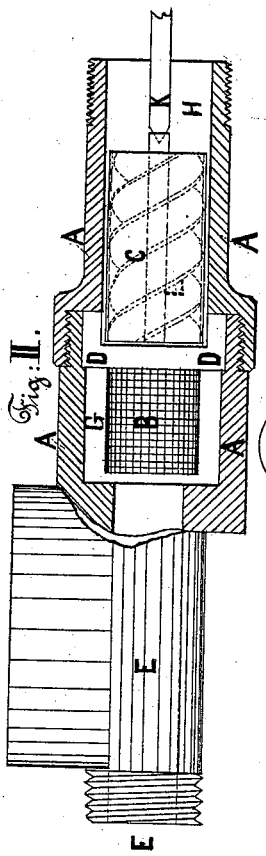

Fig: II.

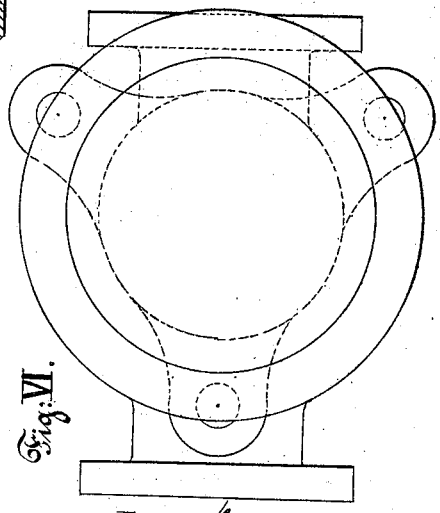

Fig: VI.

Attest

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Gustave H. Dittmar,

Inventor:

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UNITED STATES PATENT OFFICE.

HENRY C. AHRBECKER, OF LONDON, ENGLAND.

IMPROVEMENT IN ROTARY WATER-METERS.

Specification forming part of Letters Patent No. **196,411**, dated October 23, 1877; application filed August 4, 1877.

To all whom it may concern:

Be it known that I, HENRY CONRAD AHRBECKER, of the city of London, England, have invented certain new and useful improvements in meters or apparatus for measuring and indicating the flow of liquids; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification.

My invention will first be particularly described, and then clearly claimed.

In the drawings, Figure 1 is a view, partly in section and partly in plan, of an apparatus containing my invention. Fig. 2 is a view, partly in section and partly in plan, of an apparatus at right angles to that shown in Fig. 1. Figs. 3 and 4 represent parts of the aforesaid apparatus. Fig. 5 is a vertical section, and Fig. 6 a plan view, of a modification of the apparatus shown in the preceding figures.

A is a case, made in two parts, which, when screwed together, as shown in Figs. 1 and 2, surrounds the inner mechanism. E is a passage, forming a part of the case A, for the entrance of the liquid, leading to a chamber, G, in which a plate, D, is firmly secured, provided with holes, hereinafter more fully described. C is an open cylinder, provided with wings L, four or more in number, which are joined to a shaft, I, and twisted at an angle of less than forty-five degrees to its axis.

This shaft is journaled at one end upon a step, K, fixed in a spider in the outlet-passage H, and at the other end is provided with a conical shoulder running in a suitable bearing in a space in the casing A, filled with glycerine, and separated from the chamber G in any convenient manner. This end of the shaft is provided with a worm, which transfers the revolutions of the cylinder C to the ordinary registering mechanism, located in a box, J, in the casing.

The plate D, hereinbefore referred to, is drilled with holes in an oblique direction at an angle of about forty-five degrees, as shown in Fig. 3, so as to cause the liquid passing through them to strike the wings L perpendicularly.

B is a foraminous casing, secured within the chamber G over the plate D and its holes, serving to keep back all solid impurities from said holes.

In the modification shown in Figs. 5 and 6 the casing A is made in one piece, and of sufficient size at its upper portion to allow the cylinder C, with its wings L and shaft I, the plate D, and foraminous casing B, to be lifted out after the lid F, which separates the chamber G from the box J, has been removed.

The apparatus can be cleaned through an aperture located in any convenient part of the case A, which is closed by a plug, U.

The liquid to be measured flows through the passage E into the chamber G, passes through the foraminous casing B, which stops all solid impurities, and then through the oblique holes in the plate D, striking perpendicularly the wings L of the cylinder C, escaping through the outlet H. The cylinder C, through its shaft and screw, operates the registering mechanism, which records the quantity of liquid passed through the apparatus.

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

1. The plate D provided with oblique holes, through which the liquid passes, so that the latter will strike the wings L of the cylinder C perpendicularly, substantially as described.

2. The combination of the plate D, provided with oblique holes, with the cylinder C and its twisted wings L, substantially as described.

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

HENRY CONRAD AHRBECKER.

Witnesses:

S. CRANSAR,

FRANK HALL.