G. FAJEN.

Piston Water-Meter.

No. 198,539. Patented Dec. 25, 1877.

Fig. 1.

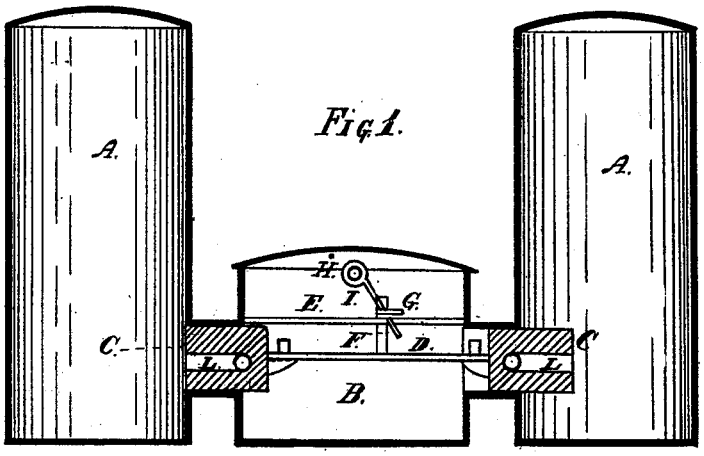
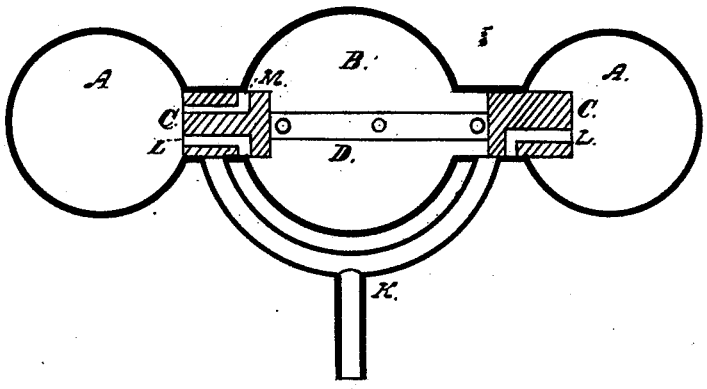


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GUSTAV FAJEN, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN PISTON WATER-METERS.

Specification forming part of Letters Patent No. **198,539**, dated December 25, 1877; application filed August 13, 1877.

To all whom it may concern:

Be it known that I, GUSTAV FAJEN, of Milwaukee, in the county of Milwaukee, the State of Wisconsin, have invented certain Improvements in Water-Meters, of which the following is a specification:

The object of my invention is to measure water accurately. It is a machine arranged with two cylinders, in which the water is measured, with a cylinder in the center for the reception of the water as it passes from the measuring-cylinders, with valves between the measuring-cylinders and the receiving-cylinders, which valves are connected together by a rod across the receiving-cylinder, with a standard, which plays in a slot in a bar across, above the connecting-rod, with a hook on the top of the standard, which hooks onto an arm on a shaft which passes across the receiving-cylinder, and, as the valves play back and forth, this hook, hooking over the arm, rocks the shaft.

Referring to the drawing, forming part of this specification, Figure 1 is a sectional view of my invention, and Fig. 2 a horizontal section of the same.

In the drawing, A A are the measuring-cylinders; B, the receiving-cylinder; C C, valves, which operate in hollow cylinders; D, a rod across from one valve to the other, and connecting them together; E, a slotted bar across the receiving-cylinder B, and above the rod D; F, a standard on rod E, working through the slot in bar E; G, a hook on the head of the standard F; H, shaft across the receiving-cylinder, with an arm, I, out from the same; K, a pipe, which conveys water to the measuring-cylinders A.

There are openings L in the valves, which, when they come opposite the opening in the hollow cylinder and pipe K, lead the water to the measuring-cylinders, and when the valves are moved in the opposite direction the hole is closed, and another is opened, which is in the valve, and which leads the water to the receiving-cylinder from the measuring-cylinder.

Operation: When water is let onto pipe K and conveyed to the measuring-cylinder, and the hole which may be open will let the water into the cylinder, which, rising and compressing the air in the upper part of the same until the pressure is the greatest on that side, when the pressure will force the valves toward the other cylinder, closing the water-way through which the water had been flowing, and opening the orifice for the water from that measuring-cylinder to pass to the receiving-cylinder, and from thence out for use, and at the same time opening the passage-way for the water from the pipe K to the other measuring-cylinder, and closing the opening from the same to the receiving-cylinder, and, as the other measuring-cylinder is filled, the same operation is gone through with in opening and closing the valves, and so on. First one cylinder will be filled, and then the other, and each emptied in turn. A register is attached to the end of shaft H, which will be turned as each cylinder is emptied, and thus the water will be measured.

What I claim, and desire to secure by Letters Patent, is—

1. Valve-plungers C C, extending into cylinders A A, and connected together by rod D, which passes across another cylinder, B, and slotted bar E and standard F, all in combination, substantially as specified.

2. Water and air compressing cylinders A A, operating plunger-valves C C, and water-pipe K, all in combination, substantially as described.

3. The arrangement of cylinders A A and B, connected together by valve-seats, in which are valves C C, said valves connected together by rod E and standard F, hook G, and arm I, operating shaft H, substantially as described.

GUSTAV FAJEN.

Witnesses:
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CHAS. A. SMITH.