D. H. TEBAY.

Piston Water-Meter.

No. 211,064. Patented Dec. 17, 1878.

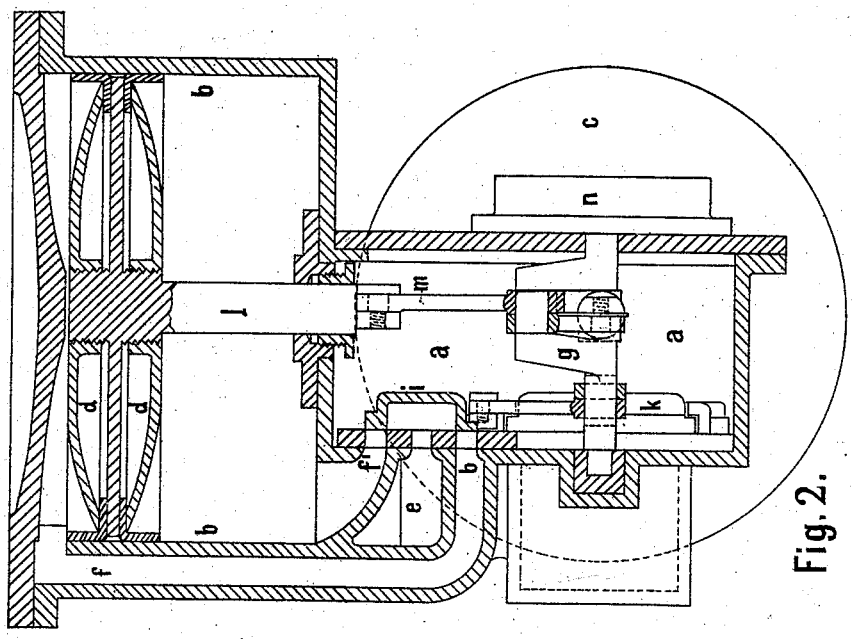

Fig. 2.

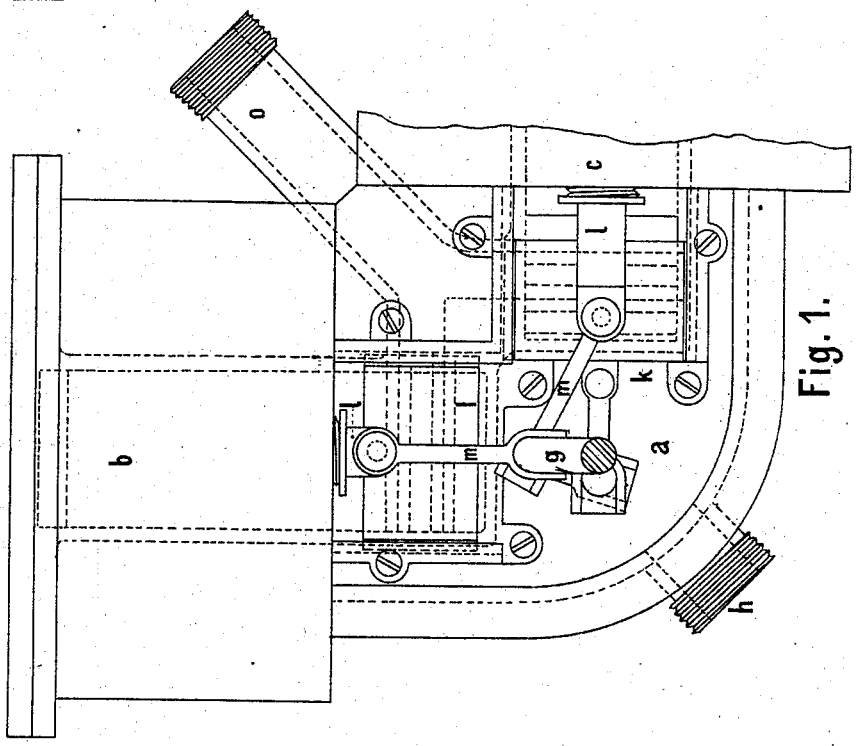

Fig. 1.

Witnesses:

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UNITED STATES PATENT OFFICE.

DANIEL H. TEBAY, OF GREENFIELD, NORTH WALES.

IMPROVEMENT IN PISTON WATER-METERS.

Specification forming part of Letters Patent No. **211,064**, dated December 17, 1878; application filed July 27, 1878.

To all whom it may concern:

Be it known that I, DANIEL HARRISON TEBAY, of Greenfield, North Wales, now residing in the city of Magdeburg, Prussia, have invented a new Water-Meter, of which the following is a specification:

This invention relates to a water-meter, by which the quantity of water supplied from a water-conduit for domestic and other purposes can be measured with great accuracy.

The same consists of two cylinders, *b* and *c*, Figures 1 and 2 of the annexed sheet of drawings, each of which is provided with a well-fitting piston, *d*. The rods *l l* of these pistons act, by the connecting-rods *m m*, on a common crank-shaft, *g*. The cylinders are either placed at an angle—by preference at a right angle—to each other, as shown by the drawing, and in this case the two connecting-rods may operate on a single crank, or the cylinders are fixed opposite to each other, which relative position requires the shaft to be provided with two cranks, so that the one is acted upon by its connecting-rod when the other passes either of its dead-centers. Instead of cranks, however, eccentrics may be employed.

The apparatus is connected at *h* with the supply-pipe, so that the water freely passes into the chamber *a*, which also contains the crank-shaft, connecting-rods, &c. From this chamber the water is admitted alternately to the top and the bottom of the cylinder *b* by the slide-valve *i* and the channels *f* and *f'*, while it is discharged through channel *e* and branch pipe *o*. The slide-valve *k* distributes the water in the same manner with regard to cylinder *c*. Both slide-valves are worked by a common crank on shaft *g* when the cylinders are placed at an angle, as in the drawing; but if the cylinders are opposite to each other they must each be worked by a separate crank. In either case eccentrics may be used instead of cranks.

It is obvious that in consequence of the described arrangement the water entering under pressure at *h* will cause the pistons to move and the shaft *g* to revolve. The contents of each cylinder represent for each stroke a uniform quantity. The entire quantity of water passing the apparatus will, therefore, be proportional to the number of revolutions of shaft *g*. These revolutions are or may be registered by a counter of any known description, inclosed in a case, *n*, and connected with the shaft *g*. Generally, however, it will be preferred to arrange the counter in such a manner that its dial-plates may show directly the number of gallons, cubic feet, &c., dependent upon the revolutions of the shaft and the contents of the cylinders.

I claim as my invention—

The two cylinders *b* and *c*, each provided with a piston, *d*, piston-rod *l*, and connecting-rod *m*, in combination with crank-shaft *g*, slide-valves *i* and *k*, water-chamber *a*, induction *h*, and pipe *o*, and with a counter, *n*, as and for the purpose described.

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

D. H. TEBAY.

Witnesses:

HEINRICH KREISMANN,

BERTHOLD ROI.