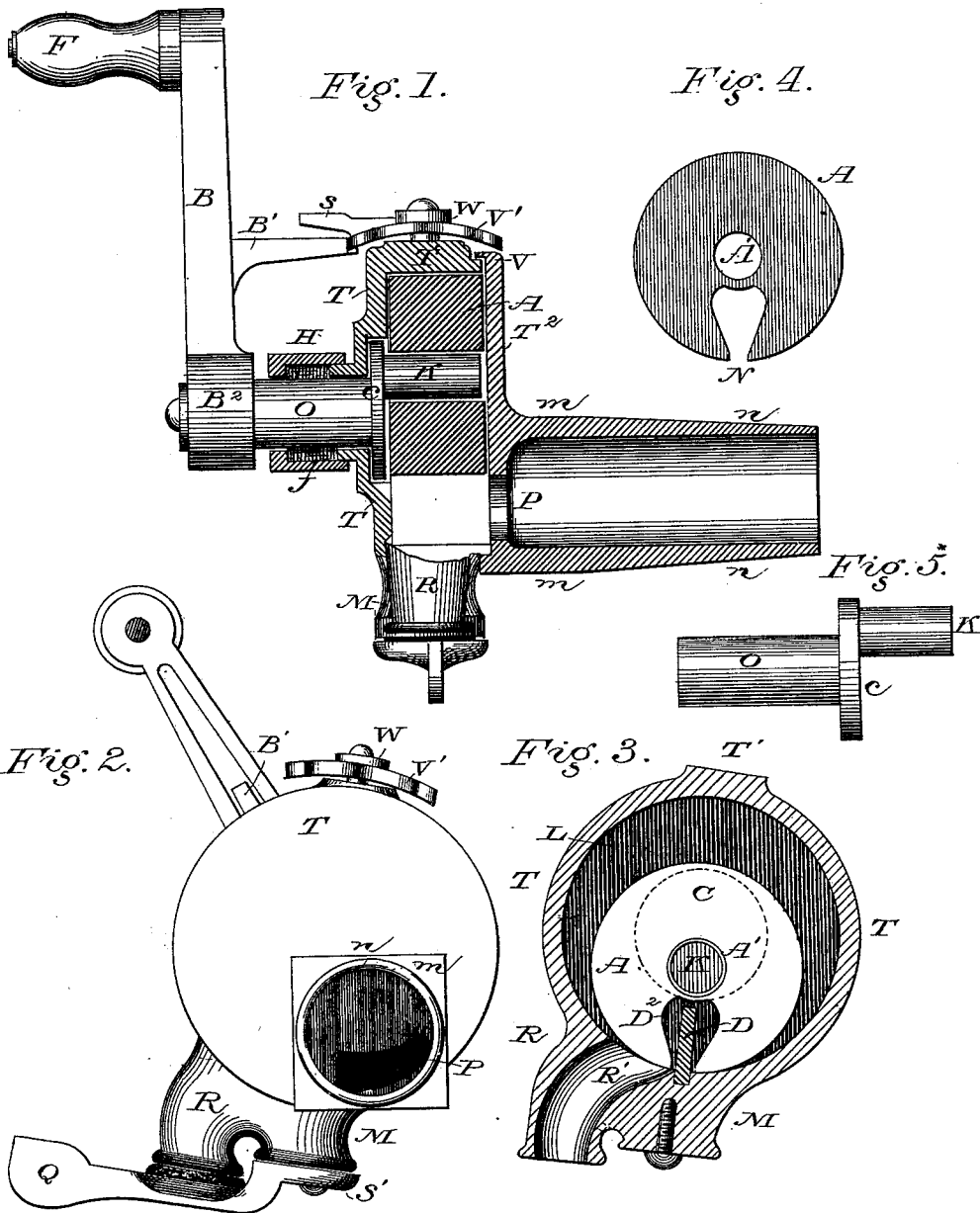


D. DRAWBAUGH.
Rotary Measuring Faucet.

No. 229,592.

Patented July 6, 1880.



Witnesses:

B. B. Hamlin
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Inventor:

Daniel Drawbaugh,
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His Atty.

UNITED STATES PATENT OFFICE.

DANIEL DRAWBAUGH, OF EBERLY'S MILL, ASSIGNOR OF TWO-THIRDS OF HIS RIGHT TO EDGAR W. CHELLIS, OF HARRISBURG, PA.

ROTARY MEASURING-FAUCET.

SPECIFICATION forming part of Letters Patent No. 229,592, dated July 6, 1880.

Application filed January 15, 1879.

To all whom it may concern:

Be it known that I, DANIEL DRAWBAUGH, of Eberly's Mill, in the county of Cumberland and State of Pennsylvania, have invented certain new and useful Improvements in Rotary Measuring-Faucets; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a view of the improved faucet, partly in longitudinal section and partly in elevation; Fig. 2, a view of the faucet, looking from the rear; Fig. 3, a sectional view taken through the measuring-chamber and cut-off, and showing the rotary piston in elevation; Fig. 4, a view of the rotary piston detached; and Fig. 5, a detailed view of the actuating-shaft with its crank-pin or wrist, upon which the rotary piston is mounted.

Similar letters of reference in the several figures denote the same parts.

This invention relates to improvements in that class of faucets which are designed to draw oil, molasses, or other liquid from a cask or other reservoir in measured quantities; and it has for its object to improve the construction of such faucets and render them more perfect and reliable in their operation.

To this end the invention consists, primarily, of a faucet having a circular chamber provided with inlet and outlet ports, a cylindrical piston arranged within the chamber and mounted on an eccentrically-rotating axis, so as to be made to slide in contact with the circumferential wall of the chamber, and a fixed positive cut-off located between the inlet and outlet ports and extending into a recess in the rotating piston, for preventing the exit of the liquid except when carried around and regularly discharged by the rotating piston.

It further consists in mounting the rotating piston upon the wrist of a crank or crank-disk attached to the actuating-shaft; and it consists, lastly, in recessing the crank-disk in the side wall of the measuring-chamber, so that it will be flush with the face of said side wall, and thus form a tight joint with the rotary piston.

In the drawings the casing of the faucet is represented as being formed in two parts, the letters T T' M R indicating one part and the letters T² m n the other part. These two parts are preferably connected by a screw-joint, as shown at V in Fig. 1.

L represents the measuring-chamber, having an inlet-port, P, communicating with the hollow stem or shank of the faucet, as seen in Fig. 1, and having also an outlet-port, R', (shown more clearly in Fig. 3.) Within the chamber L a cylindrical piston, A, is arranged. This piston is constructed to fit closely the side walls of the chamber, so as to form a perfect joint therewith, and it is mounted upon the wrist K of a crank-disk, c, formed upon the end of an actuating-shaft, D. The crank-disk c is recessed in the wall of the chamber, as seen at H, for the purpose of preserving the close joint between the piston and the chamber.

A fixed cut-off or partition, D, is located in the lower portion of the chamber, between the inlet and outlet ports, and extends up through a slot or opening in the periphery of the piston, thereby constituting a barrier to the direct passage of the liquid from the inlet to the outlet ports. The piston is chambered out back of the slot N in its periphery, as shown at D², for the purpose of permitting its necessary play on the cut-off when rotated within the chamber.

An ordinary packing-gland, J, is employed to prevent leakage around the actuating-shaft O, and an operating crank or handle, B² B F, is applied to the end of the actuating-shaft, as shown.

The operation of the faucet is as follows: Let the piston be supposed to be in position to cover the inlet-port P. Upon the operating-crank being turned the inlet-port will be uncovered and the piston will commence to move around within the chamber with its periphery in contact with the circumferential wall of the latter. As soon as the inlet-port is uncovered the liquid will be drawn from the reservoir into the chamber L; but by reason of the tight joint preserved between the piston and the cut-off or partition D the liquid is prevented

from passing directly to the outlet-port R'. When the piston nears the completion of its first rotation it passes the outlet-port R', and, entering upon its second rotation, moves past the inlet-port and gradually draws in another charge of liquid behind it—*i. e.*, behind its peripheral contact-surface—while at the same time it gradually forces out the measure of liquid drawn in by its first rotation, and which is in front of its said peripheral contact-surface.

It will be seen that the contents of the space comprehended between the cylindrical piston and the walls of the chamber between the inlet and outlet ports constitute the measure of liquid discharged at each rotation of the piston. The size of such space can, of course, be regulated at pleasure, so that a gill, two gills, or any other given quantity may be discharged at each complete turn of the operating-crank. The operating-crank is intended to be so arranged with respect to the actuating-shaft and piston that when said crank is turned down the piston will cover the discharge-port and prevent leakage; but, to still further provide against leakage, an ordinary gate, S, may be employed.

To indicate the amount of liquid drawn through the faucet, a well-known registering device is used, consisting of a prong or projection on the handle adapted to engage with one of a series of cogs or fingers on an index-wheel, S V', at each revolution of the crank.

I claim as my invention—

1. In a measuring-faucet, a circular chamber provided with inlet and outlet ports, a cylindrical piston rotating eccentrically within such chamber, with its periphery in sliding contact with the circumferential wall thereof, and a fixed positive cut-off located between the inlet and outlet ports of the chamber and extending into a recess or slot in the rotating piston, for preventing the exit of the liquid until measured and regularly delivered by the rotating piston, substantially as described.

2. In a measuring-faucet, a rotating piston mounted upon the wrist of a crank or crank-disk on an actuating-shaft, substantially as described.

3. In a measuring-faucet, the combination of the actuating-shaft, the crank-disk, and its wrist with the cylindrical piston and the chamber having the recess in its side wall for the accommodation of the crank-disk, substantially as described, for the purpose specified.

In testimony that I claim the foregoing as my invention I have hereunto set my hand and seal this 11th day of January, 1879.

DANIEL DRAWBAUGH. [L. S.]

Attest:

THEOPHILUS WEAVER,
PETER STUCKER.