2 Sheets—Sheet 1.

D. A. HAUCK.

Measuring-Faucet.

No. 216,675. Patented June 17, 1879.

Fig. 1.

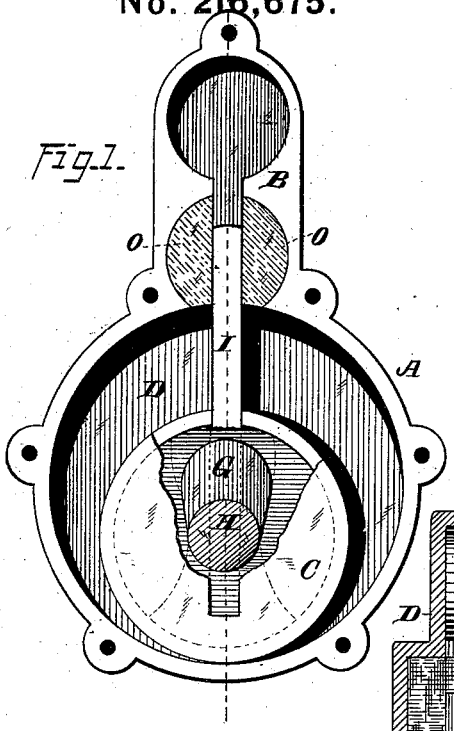


Fig. 2.

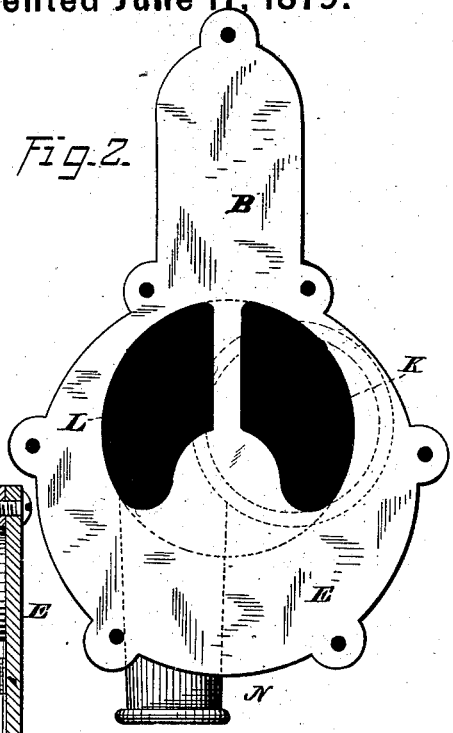


Fig. 3.

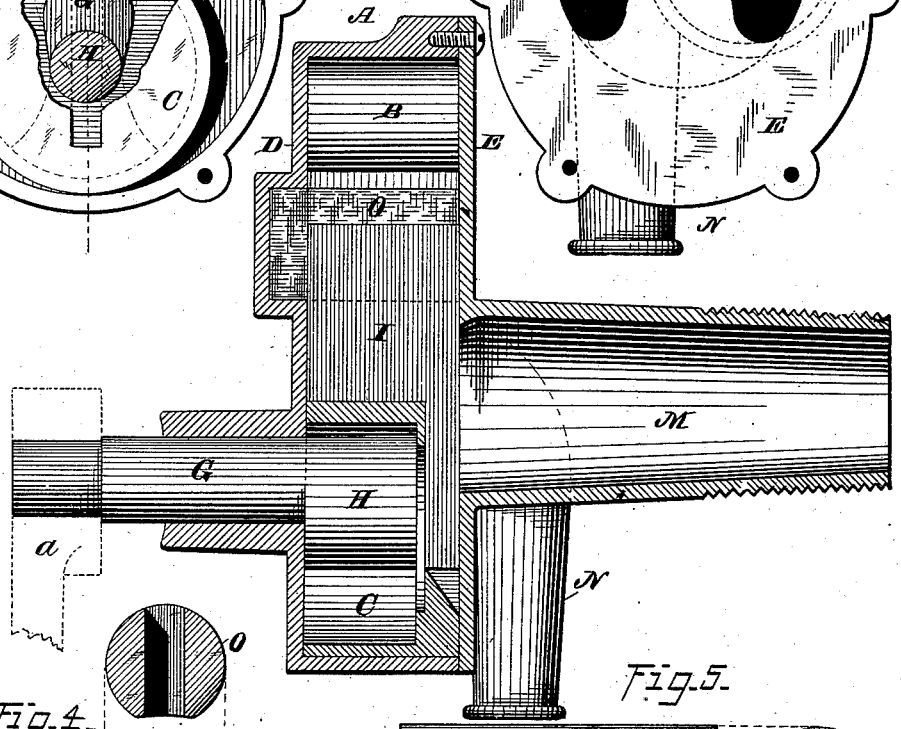


Fig. 4.

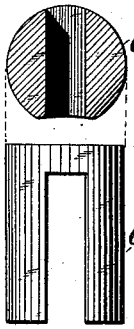


Fig. 5.

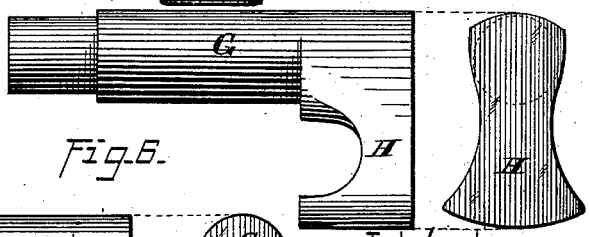
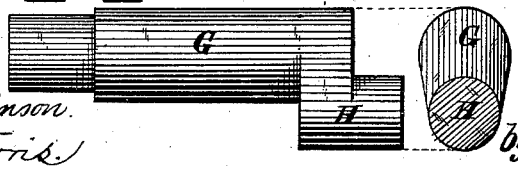


Fig. 6.



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Measuring-Faucet.

No. 216,675. Patented June 17, 1879.

Fig. 7.

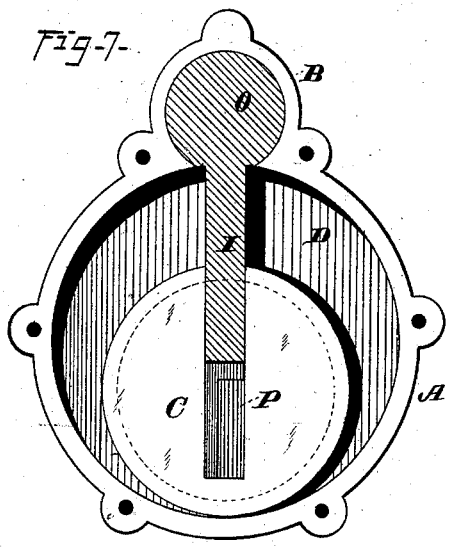


Fig. 8.

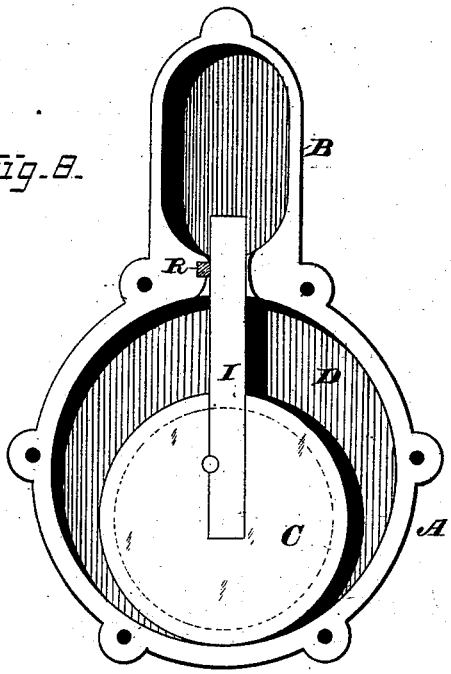


Fig. 9.

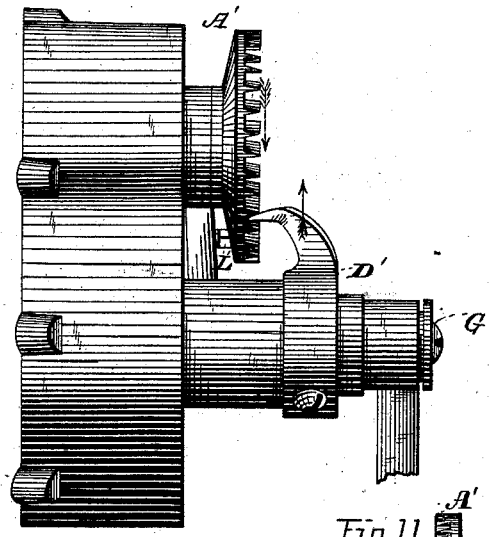


Fig. 10.

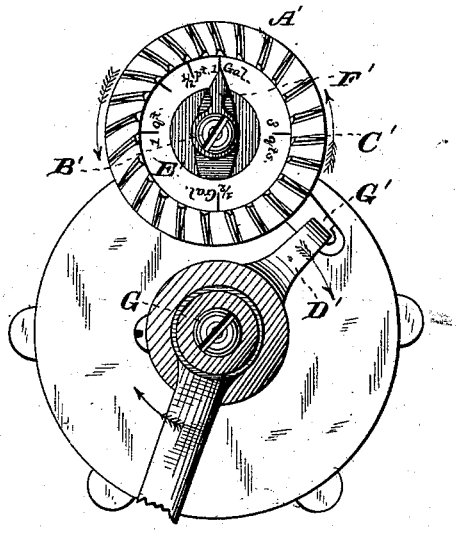
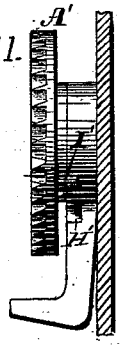


Fig. 11.



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UNITED STATES PATENT OFFICE.

DAVID A. HAUCK, OF MECHANICSBURG, PENNSYLVANIA.

IMPROVEMENT IN MEASURING-FAUCETS.

Specification forming part of Letters Patent No. **216,675**, dated June 17, 1879; application filed April 15, 1879.

To all whom it may concern:

Be it known that I, DAVID A. HAUCK, of Mechanicsburg, in the county of Cumberland and State of Pennsylvania, have invented certain new and useful Improvements in Measuring-Faucets, of which the following is a specification.

This invention relates to an improved faucet for withdrawing and discharging the contents of a barrel, hogshead, or other receptacle; and it is particularly designed to be employed in connection with barrels or other vessels containing viscid fluids, or fluids of such consistency as molasses or sirups, which naturally do not flow freely.

To this end my invention consists, first, in a faucet consisting of a hollow casing or chamber having a piston rotating on a pivot or bearing, and a swinging abutment fulcrumed or pivoted and secured against bodily lateral movement at a single point without said casing or chamber, which communicates by suitable ports with the interior of a barrel or vessel when the faucet is applied thereto, and with a discharge-spout, whereby the contents of the barrel or vessel may be drawn into said casing or chamber, and discharged from the same in measured quantities, as hereinafter particularly described; second, in the combination, with the casing having the induction and eduction ports in the wall thereof, of a solid rotating piston adapted to cover both ports when in a normal position, as more fully hereinafter specified; third, in the combination, with the casing of a measuring-faucet constructed to inclose a rotating piston and an abutment, of a covering-plate adapted to be secured to said casing and provided with an induction-tube, by which it may be secured to a barrel or other vessel, and with an eduction or discharge pipe, the tube and eduction-pipes opening, respectively, into the casing or chamber by means of suitable ports, as more fully hereinafter specified; fourth, in the combination, with the rotating piston of a measuring-faucet, of an oscillating abutment fulcrumed in an auxiliary chamber or extension of the casing distinct from the eduction-spout of said casing, as hereinafter set forth.

The invention also consists in the combination, with the shaft of the piston, of novel registering devices, which will be hereinafter particularly described.

In the drawings, Figure 1 represents a view of the casing with the covering-plate removed, illustrating the rotating piston and the movable abutment, a portion of the piston being broken away to show the crank by which the piston is operated. Fig. 2 represents a detached view of the covering-plate, showing the ports leading, respectively, to the tube, by means of which the device is secured to the barrel or other vessel and to the discharge or delivery spout. Fig. 3 represents a longitudinal section of the improved faucet. Fig. 4 shows detached views of the pivot of the movable abutment. Fig. 5 represents detached views of the shaft and a form of eccentric for carrying the piston. Fig. 6 represents detached views of the shaft and crank for carrying the piston. Fig. 7 is a rear view of the faucet with its covering-plate removed, illustrating a modified form of the pivot of the abutment, and of the connection of the abutment with the piston. Fig. 8 is a similar view, illustrating a modified form of the auxiliary chamber and abutment-pivot. Fig. 9 is a side elevation of the faucet, showing the registering attachment. Fig. 10 is a front view, also showing the registering devices. Fig. 11 is a detail view.

The letter A indicates a cylindrical casing, of metal or other suitable material, provided with an extension or auxiliary chamber, B. The letter C designates the rotary piston, located within said casing, and consisting of a cylindrical disk of metal of such width as to fit exactly between the side wall, D, of the casing or chamber and the covering-plate E of the same, and of such diameter as to permit said piston to be rotated in the line of a circle within said casing.

The letter G represents a shaft passing through the center of the side wall, D, of the casing, through a suitable opening in the same, which may be packed, if desired. Said shaft, on its inner end, is provided with an eccentric or crank, H, which sits within the piston, which is chambered for the purpose, and serves

to rotate the piston when the shaft is turned by suitable mechanism at its outer end, such as a crank, as shown at *a* in dotted lines.

The letter I indicates an oscillating abutment, extending into and pivoted in or at the the mouth of the extension or auxiliary chamber B, and connected with the rotating piston, so as to divide the interior of the casing into two compartments, which communicate, respectively, with two ports, K L, in the covering-plate. The port K leads into a tube, M, which is screw-threaded externally, so that it may be conveniently secured to the head or other portion of the barrel or other vessel. The port L leads into a discharge spout or tube, N, attached to or formed with the covering-plate. The ports are so located relatively to each other and to the rotating piston that when the piston is at rest or in a normal position it will cover and close both ports, thus preventing the escape of liquid or the entrance of dust into the casing.

The pivot of the oscillating abutment is preferably constructed of metal, in two semi-cylindrical parts, O O, as shown in Fig. 1 of the drawings, said parts fitting neatly in a cylindrical recess in the extension or auxiliary chamber B, the abutment in this case being radially attached to the piston, and adapted to slide between the parts O O, the parts being adapted to oscillate with said abutment as the piston is rotated, thus forming a swiveling guide.

In the modification shown in Fig. 4 the semi-cylindrical parts of the pivot are represented as connected together at one end, so as to insure the simultaneous movement of both, and prevent either from becoming jammed or fastened in the recess by the thickening or gumming of the liquid.

In the modification shown in Fig. 7 of the drawings the abutment is rigidly secured to or formed with the fulcrum, which, in this instance, consists of a metallic cylinder fitting within the extension or auxiliary chamber of the casing, which is made cylindrical for the purpose. The piston in this instance is diametrically slotted, as shown at P, the abutment extending into said slot, and the piston being adapted to reciprocate on said abutment, which oscillates on its pivot as the piston is rotated.

In the modification shown in Fig. 8 the abutment is rigidly secured to the piston, and is adapted to travel back and forth in the extension or auxiliary chamber B, the mouth of said chamber being rounded at its edges, as shown, and provided with a packing, R, to prevent access of the liquid to said chamber. The rounded edges of the mouth of the auxiliary chamber permit of the proper oscillation of the abutment as the piston is rotated.

As shown in Figs. 1 and 3 of the drawings, the actuating-shaft is provided with a crank on its inner end, which works in a chamber in the piston and serves to rotate the same, the crank-pin formed on the end of the shaft, as shown in Fig. 6, being fitted in a suitable recess in the center of the piston for the purpose.

The letter A′ indicates a rotating dial, mounted upon a pin, B′, secured to the front of the casing. The face of said dial at its edge is provided with a series of inclined cogs or teeth, C′, with which a finger, D′, secured to the shaft G, is adapted to engage successively as the said shaft is rotated, so as to move the dial to the extent of one tooth at each rotation.

The dial is provided with a graduation, E′, by means of which the number of rotations of the shaft G, and consequently the quantity of liquid drawn, will be accurately indicated, the casing D being of a predetermined capacity.

The letter G′ indicates a stop, consisting of a bent arm pivoted to the pin B′. Said arm is provided with a recess, H′, in which is adapted to set a pin, I′, secured to the rotating dial when the said dial is in a normal position. The said pin, when the dial has completed a full rotation, engages the stop G′, and carries it forward until its bent end falls in the track of the finger D′, arresting its motion, and indicating that a full gallon or other quantity of the liquid has been drawn, the dial being reset if an additional quantity is desired.

The operation of my invention will be readily understood in connection with the foregoing description. The device being properly secured to a barrel, hogshead, or other vessel, upon rotating the piston in the proper direction by means of the actuating-shaft, a vacuum will be created on that side of the piston and its abutment communicating with the port K, which connects with the tube secured to the barrel or hogshead, by means of which the liquid in the barrel will be drawn into the casing or chamber A. The liquid thus drawn into the casing will be carried by the rotation of the piston to the opposite side of the same, which communicates with the discharge-spout, and forced out of the same as the operation of the piston is continued.

The pivot, as shown in Figs. 1 and 4, is preferably made of zinc, as it forms a non-corrosive anti-friction bearing; but other material may be employed in its construction, if desired.

The casing is constructed of a given capacity, in order to discharge the liquid in given quantities, and may be provided with an index of the ordinary construction, and with the usual gate or valve to close the end of the discharge-spout to prevent dripping.

There is shown and described herein a rotating piston, the actuating-shaft of which has a crank-arm attached to its crank-pin working in a bearing in the piston, whereby the piston is rotated; but this I do not claim in the present application, as it forms the subject-matter of a separate application for Letters Patent.

What I claim is—

1. A faucet consisting of a hollow casing or chamber, having a piston rotating on a pivot

or bearing, and a swinging abutment fulcrumed or pivoted and secured against bodily lateral movement at a single point without said casing or chamber, which communicates by suitable ports with the interior of a barrel or vessel when the faucet is applied thereto, and with a discharge-spout, whereby the contents of the barrel or vessel may be drawn into said casing or chamber, and discharged from the same in measured quantities, substantially as specified.

2. In combination with the casing having the induction and eduction ports in the wall thereof, a solid rotating piston adapted to cover both ports when in a normal position, substantially as specified.

3. In combination with the casing of a measuring-faucet constructed to inclose a rotating piston and an abutment, a covering-plate adapted to be secured to the casing and provided with an induction-tube, by which it may be attached to a barrel or other vessel, and with a discharge-spout, said plate being provided with ports leading, respectively, into said tube and spout, as and for the purpose set forth.

4. The combination, with the rotating piston of a measuring-faucet, of an oscillating abutment fulcrumed in an auxiliary chamber or extension of the casing distinct from the induction-spout of said casing, substantially as set forth.

5. The combination, with the rotating piston of a measuring-faucet, of an oscillating abutment fulcrumed and sliding in a swiveling guide arranged in an extension or auxiliary chamber in the casing, substantially as specified.

6. The combination, with the finger D′ and the dial operated thereby, and having pin I′ projecting therefrom, of the arm G′, having the bend or catch at its end adapted to be brought into the path of said finger when the dial has made a full revolution, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

D. A. HAUCK.

Witnesses:
WM. MATHEWS,
G. W. HAUCK.