S. H. WHEELER.

Measuring Faucet.

No. 48,778. Patented July 11, 1865.

Fig: 1.

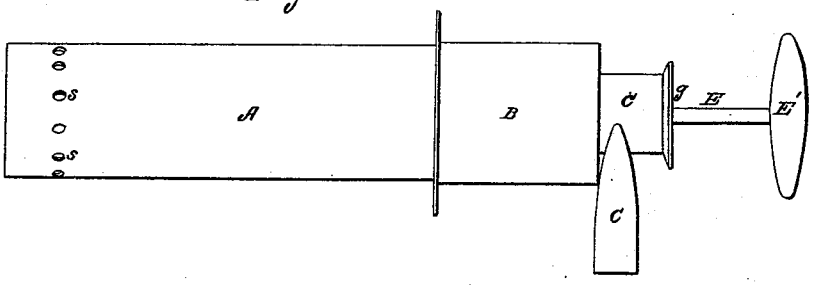


Fig: 2.

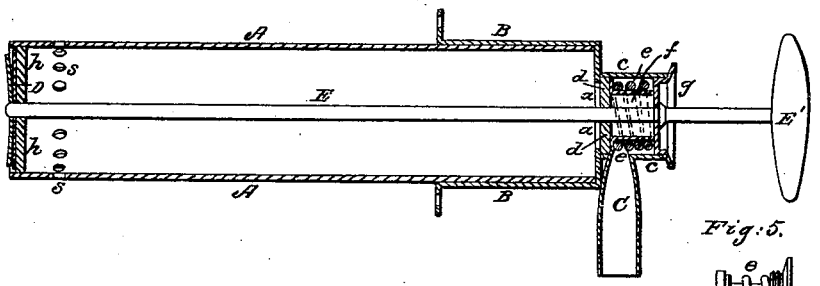


Fig: 4.

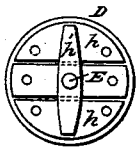


Fig: 5.

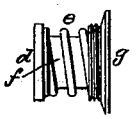
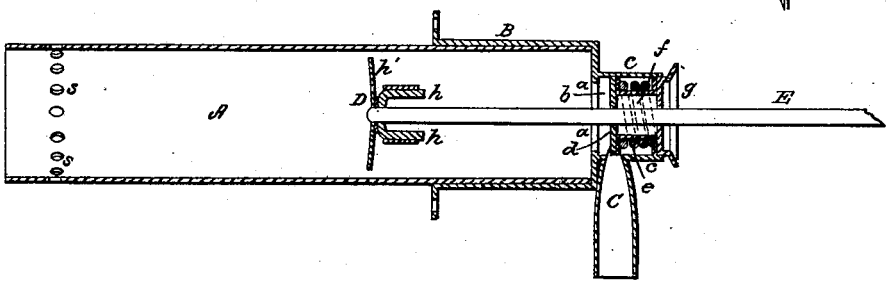


Fig: 3.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN MEASURING-FAUCETS.

Specification forming part of Letters Patent No. **48,778**, dated July 11, 1865.

To all whom it may concern:

Be it known that I, SHEPHARD H. WHEELER, of Dowagiac, in the county of Cass and State of Michigan, have invented a new and Improved Measuring-Faucet; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of my improved faucet. Fig. 2 is a diametrical section through the same. Fig. 3 is a diametrical section through the faucet, showing the condition of the piston when it is being forced back. Fig. 4 shows the construction of the piston. Fig. 5 shows the valve, valve-spring, and screw-cap detached from the faucet-tube.

This invention relates to that class of faucets which are used for measuring liquids during the act of drawing them from one vessel into another, thus rendering it unnecessary to employ separate measuring-vessels for determining the quantity of liquid drawn.

The main object of my invention is to so construct a measuring-faucet that the main discharge-orifice of the faucet cylinder or tube can be perfectly closed or opened at pleasure; also, to practically draw and measure liquid from a single cylinder or faucet-tube, which enters the vessel from which the liquid is to be drawn, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

The faucet which I have illustrated in the accompanying drawings consists of a tube, A, which may be made of any desired diameter and length. This tube, which is cylindrical, is fitted into a flanged cylinder, B, having a discharge-orifice, *a*, through one end, which leads into valve-chamber *b*, formed by the cylindrical portion *c*, as shown in Figs. 2 and 3. The tube A is thus made to communicate with the nozzle C, which projects down from the valve-chamber *b* and discharges all the liquid which flows into this chamber.

A valve, *d*, is fitted into the cylindrical neck portion *c*, and has its seat against the end of the flanged cylinder B, as shown in Fig. 2, so as to close the orifice *a* and prevent the escape of liquid from the tube A. This valve is held to its seat by means of a spring-coil, *e*, and a flanged thimble, *f*, both of which are acted upon by a screw-cap, *g*, which is tapped into the outer end of the cylinder *c*. When this cap *g* is screwed tightly in the cylinder *c* it acts upon the thimble *f* and forces the valve hard up to its seat, thus effectually closing the aperture *a;* but when this cap *g* is partially unscrewed the valve *d* is only held to its seat by the force of the coiled spring *e*.

To effect the discharge of liquid I employ a piston, D, which is constructed upon the principle of a "butterfly-valve"—that is to say, the piston has two flexible wings, *h h*, and a cross-piece, *h'*, which is secured on the end of the piston-rod E, to hold the wings in the position shown in Fig. 2 during the act of drawing the piston toward the discharge-opening of the faucet. When the piston is pushed in an opposite direction, or toward the receiving end of tube A, the wings *h h* will assume the position represented in Fig. 3, and allow liquid to enter behind the piston and fill the tube.

The piston-rod E passes through the center of the orifice *a*, through the valve *d*, and through the center of the adjustable cap *g*, as shown in Figs. 2 and 3, and is provided on its outer end with a handle, E'.

It is desired that the piston D shall move the full length of the tube A, and to prevent the piston-rod from being forced in so far as to drive the piston out of the inner end of its tube a stop, *i*, is formed on the rod E at such a point as that it will abut against the cap *g* when the piston has been forced the proper distance into its tube.

The tube A is introduced through a hole in a vessel from which it is desired to draw and measure liquid in small quantities, and secured tightly in place by inserting nails or screws through the flange of the cylinder B. Thus arranged liquor can be drawn through the faucet by moving the piston D back and forth, before doing which, however, it will be necessary to loosen the screw-cap *g* until the spring *e* only will act upon the valve *d*. During the act of drawing liquid from the faucet the force

which is applied to draw forward the piston will overcome the resistance of the spring *e* and cause the valve *d* to open the orifice *a;* and when the piston is forced back the spring *e* will close the orifice *a* and allow the tube A to fill with liquid again, as before described.

The openings S, which are made near the inner end of the tube A, allow liquid to enter this tube when the piston is in the position shown in Fig. 2. When the desired quantity of liquid has been drawn the cap *g* is set up tightly, so as to hermetically seal the orifice *a*, and thus prevent leakage.

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

1. The adjustable cap *g* and thimble *f*, in combination with the valve *d*, for tightly closing the discharge-orifice *a* of the faucet-tube, substantially as described.

2. The valve chamber *b*, provided with a valve, *d*, which is acted upon by a spring, *e*, in combination with a reciprocating valve-piston, D, and tube A, substantially as described.

3. The combination of tube A, piston D, valve-chamber *b*, and nozzle C, constructed and operating substantially as described.

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