



# UNITED STATES PATENT OFFICE.

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## MEASURING-FAUCET.

SPECIFICATION forming part of Letters Patent No. 623,302, dated April 18, 1899.

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*To all whom it may concern:*

Be it known that I, ERNEST BOENING, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Measuring-Faucets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of improvements in duplex measuring-faucets and registering apparatus therefor, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved faucet. Fig. 2 is a sectional elevation on line 2 2 of Figs. 1, 3, and 4. Fig. 3 is a transverse section of the valve and valve-case on line 3 3, Figs. 1 and 2. Fig. 4 is a transverse section of the valve and valve-case on line 4 4, Figs. 1 and 2. Fig. 5 is a transverse section through the registering apparatus on line 5 5, Fig. 1, the parts shown being inverted. Fig. 6 is a plan view with the cover of the registering apparatus removed. Fig. 7 is a detail in transverse section of the registering apparatus on line 7 7 of Fig. 6.

I provide a circular shell *a* for the measuring-chambers, divided into two equal parts *b* and *c* by a partition *d*, in the middle of which is a taper valve-case *e*, extending through the shell from top to bottom. On the top of the shell and coincident with the valve-case an elbow-tube *f* is attached for connection with the tank or barrel *g* to draw the liquid into the faucet.

The valve *h* is hollow throughout its length except the partition *i* at the middle, dividing the hollow space into two parts. Above the partition is a port *j* of the valve, and the case has a port *k* communicating with chamber *c* and a port *l* communicating with chamber *b*, one of which is closed and the other opened to the upper valve-chamber through valve-port *j*, according as the valve is set.

The valve has a port *m*, and the valve-case has ports *n* and *o*, making communication with the lower valve-chamber according as the

valve is set and so that when communication is open through ports *j* and *k* into chamber *c* for filling it communication is open through ports *m* and *o* from chamber *b* for emptying, and vice versa, the escape from the valve being through the lower end of said valve.

An elbow-lever *p* is suitably coupled with the lower end of the valve, projecting out of the case for turning the valve, the free arm of the lever projecting downward, as shown, and with the lever a locking device is provided to lock the lever to prevent unauthorized drawing, said locking device consisting of the screw-bolt *q* in a screw-threaded longitudinal bore of the downwardly-projecting arm of the lever, said bolt adapted to be screwed forward into sockets *s* of the shell and operative only by a special handle *t*, detachably connected with the bolt by inserting in the bore of the lever and engaging the angular stem *u* of the bolt by the corresponding socket *v* in the end of the handle.

The chambers are each provided with a vent *w* to permit escape of air when filling an inlet when discharging, with a float-valve *x* for closing the vent and preventing the escape of liquid when full, and the two vents are connected by a pipe *y* for venting from one chamber into another to avoid dust that would be carried in from the atmosphere if vented directly thereunto; but this being the subject of claims in another application filed at the same time with this one is not claimed herein.

In the use of such duplex measuring-faucets it is desirable to employ registering apparatus adapted to register the drafts before they are discharged from the faucet as a precaution against false registering. For application of such a registering device in this case I have provided the horizontal base-plate *a'* on the top of the tube, on which a suitable circular inclosing case *b'* for the registering apparatus is mounted, said case having a removable cover *c'* for the top and a partition-plate *d'* located above the lower edge of the case, from the center of which partition a pivot-stud *e'* extends upward a suitable distance, on which a ratchet-wheel *f'* is pivoted,

said wheel being intended for the first element of a registering-counter, or it may be the sole counter for limited amounts, being provided with a pointer *g'*, fitted to its hub *h'*.

5 For actuating this wheel I have provided a shaft *i'*, connected to the valve in any approved way, as by the partition *i*, and in the longitudinal axis of the valve, which extends upward through base-plate *a'* and carries a  
10 crank *j'*, which is jointed at *k'* with a link *l'*, coupled with a stud *m'*, projecting upward through a slot *n'*, that is radial to the axis of shaft *i'*, so that reciprocating motion is imparted to said stud as the joint *k'* swings  
15 across the radial line of the slot through the working of the valve for drawing the liquid. On the upper side of the bottom plate *d'* the stud *m'* carries the hook-pawl *o'*, which shifts the ratchet-wheel *f'* in the first part of the movement of the valve—that is, while joint  
20 *k'* moves from its starting-point to the radial line of the slot—so that as the ports are gaged to open in the latter part of the movement of the valve—that is, while joint *k'* passes from  
25 the said radial line to the end of its range—it will be seen that the action of the register is first and the draft afterward, whereby fraudulent drawing without registering is prevented. The stud *n'* also carries a locking-  
30 pawl *p'*, which prevents the ratchet-wheel from being forced forward for false counting while the lever *p* is locked. This registering apparatus, *per se*, is not claimed herein, it also being claimed in another application filed to-  
35 gether with this one.

It will be seen that by arranging the valve vertically in the center of the shell the faucet is more symmetrical and better adapted for being suspended by the faucet-tube, especially  
40 from a wagon-tank, and it affords a simpler and more symmetrical arrangement of the registering apparatus centrally over the shell and a simpler connection with the valve for actuating it.

45 I am aware of the patent to Blackerby and Noland, No. 171,979, in which the chamber-case is a horizontal structure with the valve-case at one end, and I do not claim such device. The vertical cylindrical form of my

structure with the valve in the center is simpler, more symmetrical, projects from the valve-case in a lesser degree, the valve-nozzle is more accessible, and the weight of the case and contents is less trying to the valve-tube and its connection with the tank, being more  
55 directly under them.

I claim—

1. In a duplex measuring-faucet, the combination of a shell divided centrally into two equal chambers, a vertical valve-case located  
60 in the partition and connected through the top of the shell with the faucet-tube, a valve located in said case and controlling the inlet and discharge ports of both chambers and having the discharge-nozzle extended through  
65 the bottom of said shell, an elbow-operating lever connected to said nozzle, a locking-bolt for said lever threaded in a longitudinal bore of the free arm of the lever to be screwed  
70 forward into a socket of the shell, and a detachable handle of the lever engaging said bolt at a point within the bore not accessible without the handle substantially as described.

2. In a duplex measuring-faucet, the combination of a shell having a taper bottom and  
75 divided centrally into two equal chambers, a vertical valve-case located in the partition and connected through the top of the shell with the faucet-tube, a valve located in said case and controlling the inlet and discharge  
80 ports of both chambers, and having the discharge-nozzle extended through the bottom of the shell and also having the register-actuating shaft projecting upward, a registering device located over the valve-case and consisting of the ratchet-wheel pivoted in the  
85 axis of the valve, the pawl for actuating the ratchet-wheel and the reciprocating stud, said stud connected with the shaft of the valve by the crank on said shaft and the connecting-  
90 link substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ERNEST BOENING.

Witnesses:

W. J. MORGAN,  
A. P. THAYER.