

W. M. Wright,
Liquid Measure.

No. 113,237.

Patented Mar. 28. 1871.

Fig. 1.

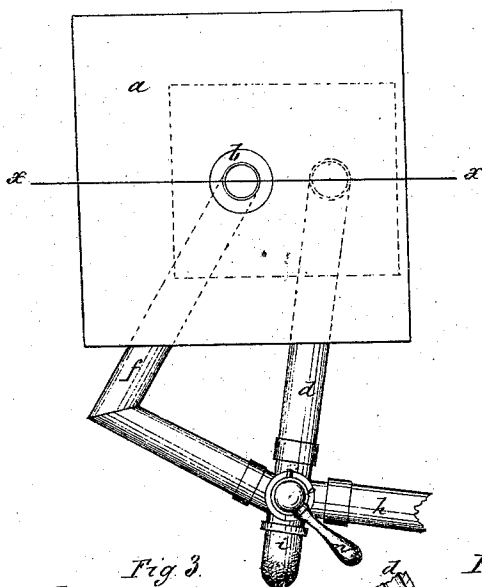


Fig. 2.

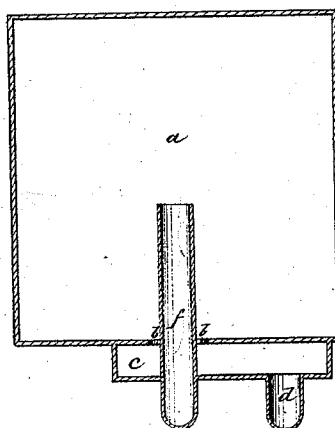


Fig. 3.

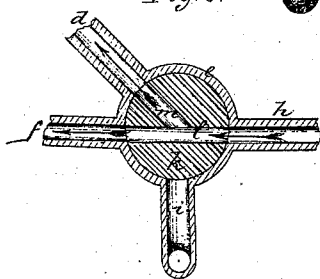


Fig. 4.

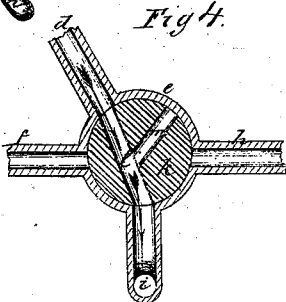
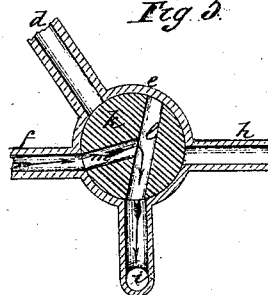


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM M. WRIGHT, OF CHAMBERSBURG, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND HARRISON PHOEBUS, OF FORTRESS MONROE, VIRGINIA.

IMPROVEMENT IN LIQUID-MEASURES.

Specification forming part of Letters Patent No. **113,237**, dated March 28, 1871.

To all whom it may concern:

Be it known that I, Dr. WILLIAM M. WRIGHT, of Chambersburg, in the county of Franklin and State of Pennsylvania, have invented a new and Improved Liquid-Measure; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a plan view of the chamber, cock, and pipes. Fig. 2 is a sectional elevation of the chamber and pipes; and Figs. 3, 4, and 5 are horizontal sections of the cocks, showing, respectively, the course of the stream of supply and the two separate courses of the stream of discharge.

This invention consists in the combination, with two separate chambers, or two chambers combined in one, and of different capacities, of a cock so contrived as when turned in one direction to open passages whereby both chambers receive a supply of liquid at the same time; when turned in another direction, to close the supply-passage and open one of the chambers, leaving the other closed; and when turned in still another direction, to open the chamber that had before been closed and close the chamber that had before been opened, leaving the supply-passage still closed.

The invention also consists in locating the mouths of the passages whence the liquid escapes from the chambers at the center of the bottoms thereof, in order that all the liquid may escape from the chambers even when they stand inclined.

Referring to the drawing, *a* is a chamber, of any desired capacity, having at the center of its bottom an orifice, *b*, which opens into a flue, *c*, attached to the lower side of the chamber *a*, and forming, in effect, an enlargement of a pipe, *d*, by which the contents of the chamber *a* are conducted to the cock. Another pipe, *f*, leads from the cock to the chamber *a*, and extends upward through the orifice *b* to any required distance within the chamber. The office of the pipe *f* is, when the cock is opened in the right direction, to empty the chamber *a* as far down as the upper end of the pipe *f*, which may be at one-half, one-third,

one-fourth, or any other fractional part of the height of the chamber.

By providing the orifice *b* to empty the whole chamber and the pipe *f* to empty a part of the chamber, I do, in reality, combine two chambers in one, as the same effect is thereby produced as if there were another chamber of less capacity in addition to the chamber *a*, and connected with the cock by the pipe *f*, which, in this case, would not enter the chamber *a* at all.

The location of the orifice *b* and pipe *f* at the center of the chamber prevents the retention of any appreciable amount of the liquid within the chamber when the latter is careened, as in all positions of the chamber the liquid at its center stands at the same height.

The barrel *e* of the cock is connected with four pipes, *h*, *i*, *d*, and *f*, which all open into the barrel, *h* being the supply-pipe, *i* the exit-pipe, and *d* and *f* leading to the chamber *a*, as before explained.

The key *k* is furnished with one straight way, *l*, which runs from one side of the key to the other, and with a second way, *m*, which leads from the center of the way *l* to one side of the key, and lies at such an angle with the way *l* that when the latter is so turned as to connect with the pipes *h* and *f* the way *m* connects with the pipe *d*, as shown in Fig. 3. When the key is in this position the supply-pipe delivers liquid to the chamber *a* through both pipes *d* and *f* at the same time.

After filling the chamber *a*, if the operator wishes to draw off that part of its contents that is above the mouth of the pipe *f*, he turns the key into the position shown in Fig. 5, by which movement he brings the way *m* into connection with the pipe *f*, and one end of the way *l* into connection with the exit-pipe, and at the same time closes the pipes *d* and *h*. If he wishes to draw off all the liquid in the vessel *a* he turns the key into the position shown in Fig. 4, by which movement he brings the pipe *l* into connection both with the pipe *d* and the exit-pipe, and closes the pipes *f* and *h*. If he wishes to keep the vessel *a* full without drawing off any of its contents, he can turn the key into such position that it closes all the pipes.

From the foregoing it will be perceived that while the chamber *a* always receives its supply through both pipes *d* and *f* at once, it can discharge through only one of them at a time, so that the chamber cannot fail to admit that quantity of liquid for which the key is turned.

In order to open the supply-pipe the handle *n* of the cock must be turned parallel with the nose *i*.

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

1. The discharge-pipes *d* and *f*, supply-pipe *h*, and nozzle *i*, arranged in connection with the key *k*, provided with passages *l m*, as herein shown and described, whereby liquid may be fed from any suitable reservoir into a

single measuring-vessel, or two separate ones, through pipes *d* and *f* simultaneously, and drawn off through said pipes, the supply being meanwhile closed, in the manner herein set forth.

2. The measuring-vessel *a*, provided at the center of its bottom with the discharge-pipe *f*, projecting into the same, and the discharge-aperture *b*, as and for the purpose specified.

To the above specification of my invention I have signed my hand this 14th day of December, A. D. 1870.

W. M. WRIGHT, M. D.

Witnesses:

J. SCOTT,

R. B. SPERRY.