(No Model.)

J. R. WHERRY & H. H. ROTTAKEN.

MEASURING BOTTLE OR FLASK.

No. 386,418. Patented July 17, 1888.

Fig. I.

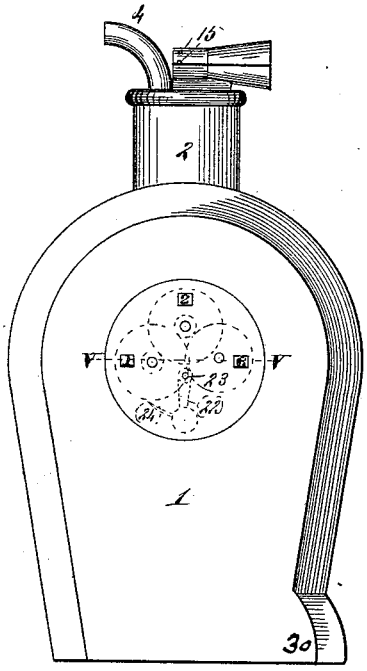


Fig. II.

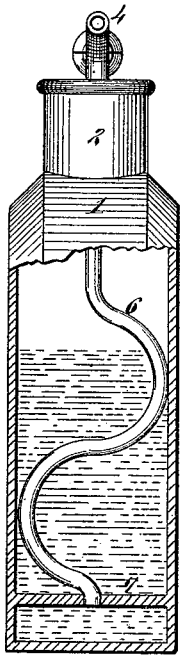


Fig. III.

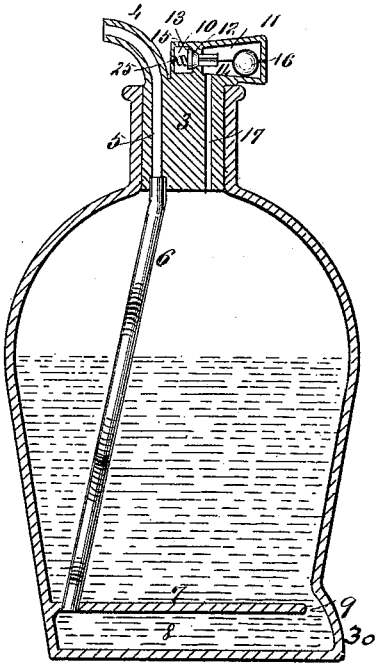


Fig. IV.

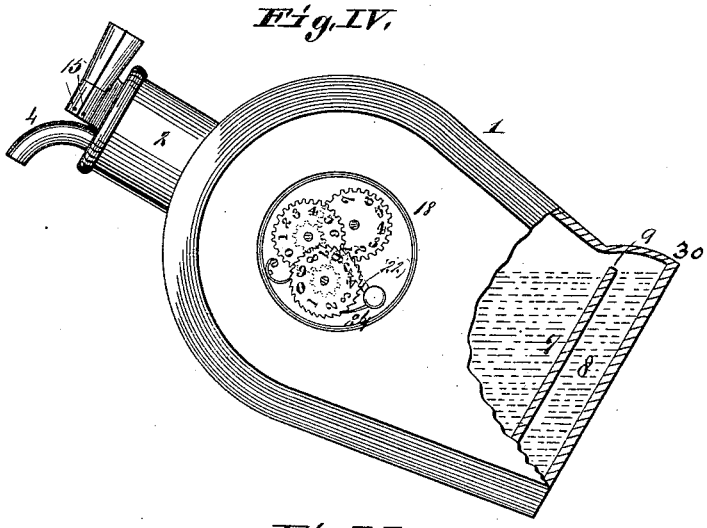
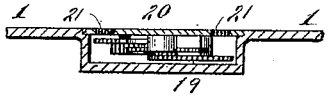


Fig. V.



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UNITED STATES PATENT OFFICE.

JOHN R. WHERRY AND HERBERT H. ROTTAKEN, OF LITTLE ROCK, ARKANSAS, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO DEAN ADAMS, OF SAME PLACE, AND HENRY SCHMASEN, OF ST. LOUIS, MISSOURI.

MEASURING BOTTLE OR FLASK.

SPECIFICATION forming part of Letters Patent No. 386,418, dated July 17, 1888.

Application filed August 11, 1887. Serial No. 246,706. (No model.)

To all whom it may concern:

Be it known that we, JOHN R. WHERRY and HERBERT H. ROTTAKEN, both of Little Rock, in the county of Pulaski and State of Arkansas, have invented a certain new and useful Improvement in Measuring Bottles or Flasks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure I is a side elevation of our improved bottle or flask. Fig. II is an edge view, part in section. Fig. III is a vertical section. Fig. IV is a side elevation showing the bottle or flask tilted, and showing it part broken away, the covering-plate of the register being removed. Fig. V is a section taken through the register on line V V, Fig. I.

Our invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, 1 represents the body of the bottle or flask, and 2 the neck. These parts may be made in any desired shape or form.

3 represents a plug, of metal or other suitable material, in the neck 2, and which is provided with a nozzle, 4, communicating with a port, 5, in the plug. (See Fig. III.) Secured to the plug and communicating with the port 5 is a tube, 6, which preferably extends to near the bottom of the bottle or flask and connects with a diaphragm or partition, 7, extending nearly across the lower part of the flask a short distance from the bottom, leaving a chamber, 8, between the diaphragm and the bottom of the flask or bottle. The tube 6 communicates with the chamber 8 at one end of the diaphragm, and there is a space, 9, left at the other end, through which the liquid passes from the main part of the bottle into the chamber 8.

10 11 represents a horizontally-divided valve-chamber, of metal or other suitable material, on the upper end of the plug 3, the chamber being divided vertically into two parts by the seat 12 of the valve. The nozzle 4 and lower half of the valve-chamber are formed on the plug, and the upper half of the valve-chamber is soldered to the lower half of the chamber.

13 represents the valve located in the part 10 of the chamber, and having a stem, 14, extending into the chamber 11.

15 represents vent-holes in the wall of the part 10 of the chamber, and 16 represents a ball in the part 11 of the chamber.

17 represents a port extending from the part 11 of the chamber through the plug 3, and communicating with the interior of the bottle or flask.

It will be observed on referring to Fig. III that the part 11 of the chamber is largest at its outer end and its interior tapers toward the inner end or toward the valve.

18 represents a register, of any approved form, secured to one side of the bottle, the bottle preferably having an inwardly-extending portion, 19, to receive the register, as shown in Fig. V. The register has an outer covering-plate, 20, (shown removed in Fig. IV,) through which are openings or holes 21, to exhibit the numbers of the register, as shown in Figs. I and V.

22 (see dotted lines, Fig. I) represents a weighted arm pivoted at 23, and which is provided with a pawl or dog, 24, engaging one of the wheels of the register. Each time the bottle is moved into the position shown in Fig. IV the arm swings out of the vertical plane and the pawl turns the disk or wheel with which it engages, thus operating the register, and when the bottle is moved back to a vertical position the arm swings back to a vertical line, causing the pawl to engage the next tooth on the disk.

The operation is as follows: In filling the bottle the liquid is forced in through the nozzle 4 and tube 6 until the bottle is filled or partly filled. As the liquid enters, the air escapes through the port 17, valve 13, and vent-holes 15, the pressure of the air opening the valve against the pressure of a spring, 25, which tends to hold it closed. As long as there is any liquid in the body of the bottle, the chamber 8 of course is filled; and each time this chamber is emptied the register indicates that a

certain amount of the liquid has been removed from the bottle. In removing the liquid the bottle is turned into the position shown in Fig. IV, and the liquid passes out through the tube 6 and nozzle 4, and it will be understood that only the liquid that is in the chamber 8 will run out without again moving the bottle into its upright position. The air is allowed to enter the bottle or flask as the liquid escapes through the vent-holes 15, valve 3, and port 17, the valve being opened this time by the ball 16 rolling against the stem or extension 14 of the valve and forcing the valve back against the pressure of the spring 25. The ball will of course roll toward the valve when the bottle is tipped, as stated, and when the bottle is brought back to a vertical position the ball will roll back to the position shown in Fig. III, allowing the valve to be closed by the spring 25. When the bottle is tipped to the position shown in Fig. IV to pour out the liquid, the weighted arm 22 of the register moves the disks, as stated, thus indicating that liquid has been taken from the bottle, and as the liquid taken is only the amount contained in the chamber 8 it will be understood that the register will show how many times the chamber has been emptied, and consequently how much liquid there has been taken from the bottle or flask.

This device is applicable to bar use, and is particularly intended in such use for the retail of fine liquors, for the reason that it registers the amount of liquid taken from the bottle or flask, thus indicating to the proprietor (through means of the register) the amount taken out, which should correspond with the cash received.

To prevent any attempt to remove the liquid through the tube and nozzle without tilting the bottle in the direction shown in Fig. IV, (so as to prevent the working of the register,) we bend the tube 6, as shown in Figs. II and III, so that if it is attempted to remove the liquid by tipping the bottle or flask in any other direction than that indicated in Fig. IV the bends in the tube will form traps, preventing the flow of the liquid.

In order to have the end of the diaphragm (at the space 9) quite or almost in line with the wall of the flask or bottle above it, so that no liquid will enter the chamber 8 after the bottle has commenced to be tipped, we form an extension, 30, on the bottle or flask at the end of the diaphragm. (See Figs. I, III, and IV.)

We claim as our invention—

1. A bottle or flask having a partition forming a measuring-chamber at the bottom, an inlet to said chamber at one side, and a discharge-pipe connected to the chamber at the opposite side, substantially as described.

2. A bottle or flask having a partition forming a measuring-chamber, an inlet to said chamber at one side, an outlet to said chamber at the opposite side, a plug having a port, and a pipe connecting the outlet with the port, substantially as described.

3. A bottle or flask having a partition forming a measuring-chamber at the bottom, an inlet to said chamber at one side, an outlet to said chamber at the opposite side, a plug having a port, and a pipe connecting the outlet with the port, said pipe having bends, substantially as described.

4. A bottle or flask having a partition forming a measuring-chamber at the bottom, an inlet to said chamber at one side, an outlet to said chamber at the opposite side, a plug having a liquid-port and an air port, and a pipe connecting the liquid-port with the outlet, substantially as described.

5. A bottle or flask having a partition forming a measuring-chamber at the bottom, an inlet to said chamber, and an extension at one side of the partition, and an outlet and a discharge pipe at the opposite side of the chamber, substantially as described.

JOHN R. WHERRY.
HERBERT H. ROTTAKEN.

In presence of—
CHAS. H. SCHUSSLER,
A. GALLAGHER.