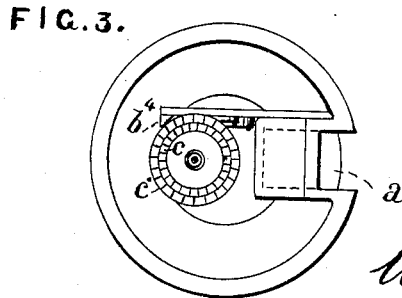
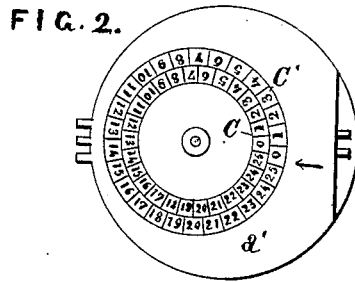
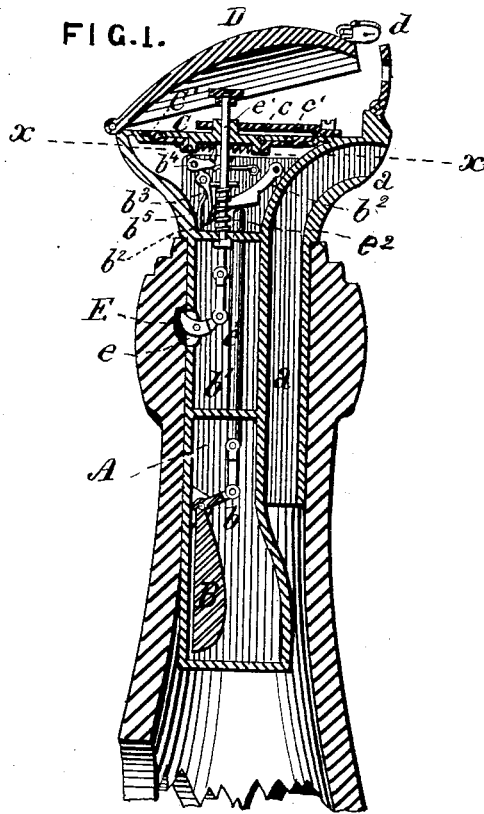


W. S. LYNN.
Bottle-Register.

No. 200,552.

Patented Feb. 19, 1878.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM S. LYNN, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BOTTLE-REGISTERS.

Specification forming part of Letters Patent No. **200,552**, dated February 19, 1878; application filed October 19, 1877.

To all whom it may concern:

Be it known that I, WILLIAM S. LYNN, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Bottle-Registers, of which the following is a specification:

The object of my invention is to provide a simple and efficient device for recording and indicating the number of times that a portion of the liquid contained in a bottle has been poured therefrom; to which end my improvements consist in the combination of a case of such form as to fit within the neck of a bottle, and having a chamber which does not communicate with the interior of the bottle, a weight pivoted to the case within said chamber, a pivoted pawl which is connected, either directly or intermediately, with the weight, a ratchet-wheel actuated by the pivoted pawl, and a stationary or movable dial and index, by which each movement of the ratchet-wheel induced by the vibration of the weight in the act of inclining the bottle to pour out a portion of its contents is recorded or registered.

My improvements further consist in combining, with the case and its registering mechanism, a device by which it may be locked or secured to the bottle, all as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a vertical section of a register embodying my improvements attached to the neck of a bottle; Fig. 2, a plan or top view with the cover removed; Fig. 3, a horizontal section at the line *x x* of Fig. 1.

A cylindrical case, A, which is flared or expanded at top, serves to contain and support the mechanism of the register, the interior of the case forming a closed chamber having no communication with the interior of the bottle, so as to prevent access of the liquid therein to the moving parts. The diameter of the case A is such as to enable it to fit neatly within the neck of the bottle, and a spout or conduit, *a*, is formed at one side of the case, through which the liquid passes.

A weight or pendulum, B, is pivoted in the lower portion of the case A, at the opposite side thereof relatively to the spout *a*, and having its pivot-pin parallel therewith, so that, at each inclination of the bottle to pour

out a portion of its contents through the spout, the action of gravity will be exerted, without impediment, upon the weight, and will displace it from its vertical to an inclined position.

An arm, *b*, is formed on or secured to the weight B, projecting therefrom in the direction of the spout, and has its outer end pivoted to a vertical rod, *b*¹, passing through a guide or guides in the case. The upper end of the rod *b*¹ bears against a pivoted lever, *b*², the free end of which bears against the lower arm of a double-armed lever, *b*³, the upper arm of which is jointed to a pawl, *b*⁴. The lever *b*³ is pressed up to the lever *b*² by a spring, *b*⁵. The pawl engages the teeth of a ratchet-wheel, *c*, formed upon the lower side of a dial, C, and free to rotate therewith in bearings in the cap-plate *a'* of the case A, being held in contact with the ratchet-wheel by a spring. The face of the dial C is divided into numbered spaces, registering with a fixed index on the cap-plate, the degree of movement permitted to the rod *b*¹ and its connections being such as to move the dial one space, and no more, at each inclination of the bottle, sufficient to admit of the escape of liquid through the spout *a*, and upon the return of the weight to its initial vertical position by the reversion of the bottle the parts are in readiness to repeat the operation.

It is obvious, for this reason, that the relative quantity of liquid poured out at each inclination cannot be indicated, nor is this necessary, the only object of the device being to register the number of times that liquid is poured out.

A hinged cap or cover, D, secured by a lock, *d*, serves to cover and inclose the dial-plate, and prevents it from being tampered with by an unauthorized person.

It will be seen that by the arrangement shown the registration is limited to the number of divisions of the dial C, or, in other words, to a single revolution of the dial. The number of revolutions of the dial may, in addition, be registered, so as to avoid the necessity of frequent examinations, by providing a supplementary dial, C', and ratchet-wheel *c'*, arranged concentrically with the dial C and ratchet-wheel *c*, and having one more division than the latter, so as to be moved ahead for a

distance equal to one space at each revolution thereof.

The unauthorized removal of the register from the bottle may be prevented by sealing it thereto; or, if preferred, it may be locked to the bottle by a double-armed locking-lever, E, pivoted to the case, and having its outer arm projecting outward through a slot therein, and entering a recess, *e*, formed in the inside of the neck of the bottle. The inner arm of the locking-lever is connected to a rod, *e*¹, passing through the cap-plate *a*' of the case, and being pressed upward by a spring, *e*², so as to maintain the outer arm of the lever E within the recess *e*, except when the rod is moved downward by pressure upon its top. The cap D prevents access to the locking device as well as to the dial.

I claim as my invention and desire to secure by Letters Patent—

1. The combination, with a bottle for holding liquids, of a cylindrical case fitting within the neck of the bottle, and having a side spout or conduit for the egress of the liquid, a pendulum which is pivoted on a pin in said case, placed parallel to the spout, and registering

mechanism connected with said pendulum, whereby, at each inclination of the bottle, the pendulum will be caused to assume an inclined position and operate the registering mechanism, substantially as and for the purpose specified.

2. The combination of a cylindrical case, A, a weight or pendulum, B, pivoted therein near its lower end, and having an arm, *b*, jointed to a vertical rod, *b*¹, a pivoted lever, *b*², moved by said vertical rod, a double-armed lever, *b*³, the lower arm of which is actuated by the lever *b*², a pawl, *b*⁴, pivoted to the upper arm of the lever *b*³, and a ratchet-wheel, *c*, and dial C moved by the pawl *b*⁴, substantially as set forth.

3. The combination, with the register-case and a locking-lever projecting therefrom, and operated by a rod within the case, of a bottle having an internal recess or depression to engage the projecting arm of the locking-lever, substantially as set forth.

WM. S. LYNN.

Witnesses:

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