J. SMYLIE.

Bottle Register.

No. 13,659. Patented Oct. 9, 1855.

Fig. 1

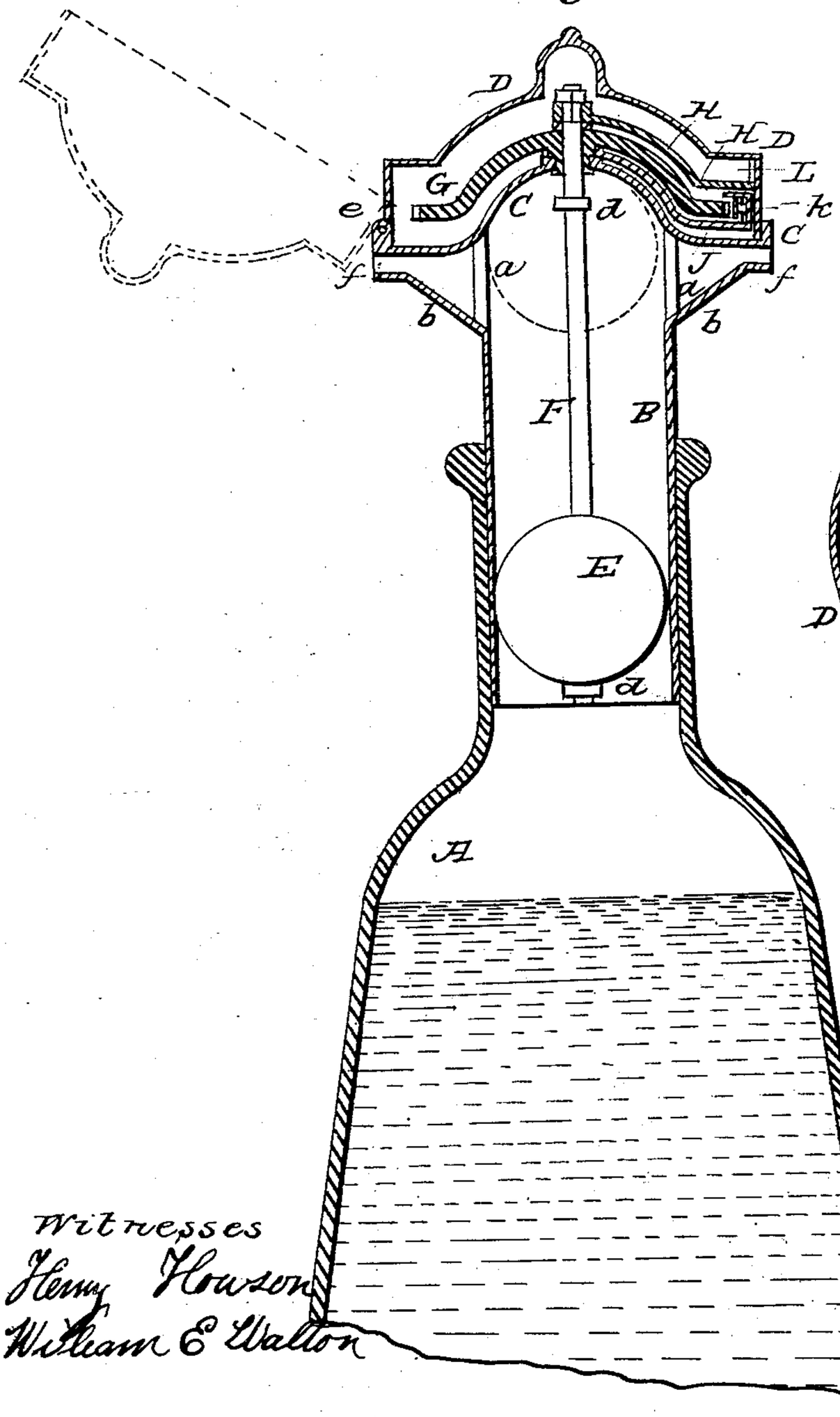


Fig. 2

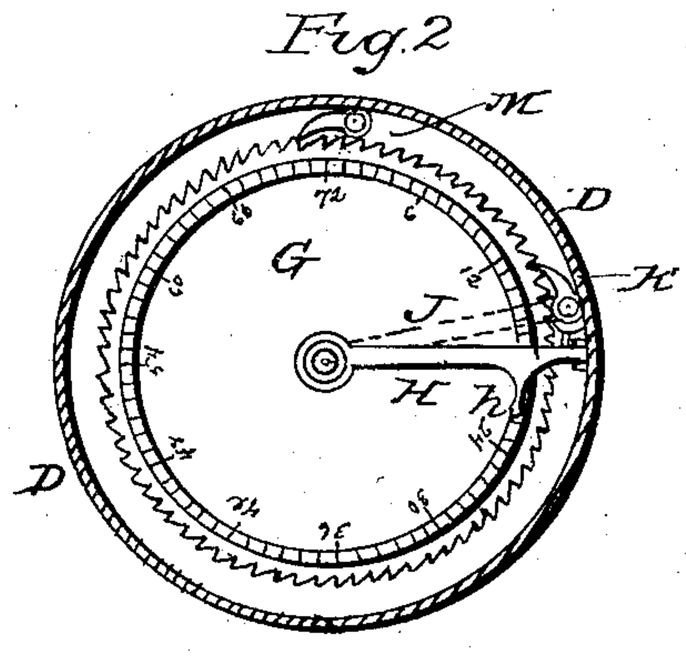
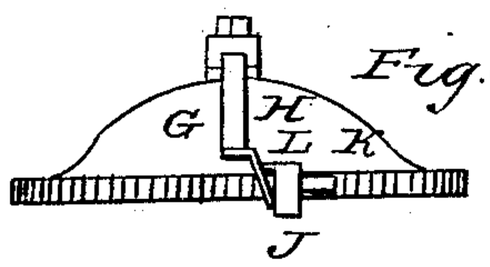


Fig. 3



Witnesses
Henry Howson
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Inventor
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UNITED STATES PATENT OFFICE.

JOHN SMYLIE, OF PHILADELPHIA, PENNSYLVANIA.

REGISTER BOTTLE-FASTENING.

Specification of Letters Patent No. 13,659, dated October 9, 1855.

To all whom it may concern:

Be it known that I, JOHN SMYLIE, of the city of Philadelphia and State of Pennsylvania, have invented a new and Improved Apparatus for Registering the Number of Times a Bottle is Used for Pouring the Contents Therefrom; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention consists in fitting to the neck of a bottle or other vessel which it is necessary to use repeatedly (as at the bars of hotels) an apparatus consisting of a cylinder which has a ball loose upon a spindle and arranged in such a manner that when the bottle remains stationary the said ball nearly fits its neck, and when the bottle is partially inverted for the purpose of pouring out a portion of its contents the ball will slide along the spindle into a cavity at the top of the cylinder thereby allowing the liquid to escape through openings made for the purpose; on the bottle being restored to its former position the ball will again slide down the spindle nearly filling the neck as before. The ball in thus traversing backward and forward strikes projections both on the top and bottom of the spindle which give the latter a reciprocating movement every time the bottle is used and this movement I cause (by apparatus more fully described hereafter) to act upon a dial which registers every occurrence of the bottle being used.

The dial and its appurtenances I inclose in a case at the top of the cylinder and the case I furnish with a hinged lid and suitable lock so that the key may be in the possession of the party interested in ascertaining the amount of times a bottle has been used.

In order to enable others to make and use my invention I will now proceed to describe its construction and operation.

On reference to the drawing which forms a part of this specification, Figure 1 is a sectional elevation of a portion of a bottle with my improved registering apparatus attached. Fig. 2 is a ground plan of the same with the hinged cap removed. Fig. 3, is a side view of the dial without the case showing the lever and catch for operating the same.

Description.

A is a portion of a bottle into the neck of which I introduce the cylinder B having a funnel shaped piece *b* at the top. To the latter is secured by means of strips *a* the concave plate C in such a manner as to leave an annular opening *f* for the escape of the liquid. Hinged at *e* to the plate C is the cap D which is furnished with any convenient secret locking apparatus.

G is a toothed dial as seen in Fig. 2 arranged in such a manner that it can revolve on the plate C without the possibility of changing its vertical position; through the hub of the dial G passes the spindle F in which the ball E which nearly fits the cylinder B is allowed to move freely. Secured to the top of the spindle is the bar H furnished with a pointer *h* and an inclined projection L which bears against the projecting lip of the lever J. This lever is arranged so as to vibrate loosely on the hub of the dial G and is furnished at the end with a spring catch K the point of which fits the notches on the dial, another spring (not shown in the drawing) has a tendency to keep the lever J pressed toward the inclined projection L of the arm H. This arm as well as the spindle F is prevented from turning around by the end of the former fitting in guides on the cap D and the spindle is furnished with collars *d* for a purpose hereafter set forth.

Operation.—The bottle as shown in the drawing is supposed to be in its ordinary standing position the ball E resting on the collar *d* at the bottom of the spindle and inclined projection L on the arm H bearing with its upper end against the projection of the lever J. On the bottle being partially inverted, however, in order to pour out a portion of its contents the ball E slides along the spindle F, strikes the upper collar *d* moves the spindle and with it the arm H. The projection L on the latter must likewise be raised and must, on account of its inclination move the lever J a distance corresponding to the amount of the said inclination and to the movement of the spindle. And this inclination and movement is so regulated that the spring catch K shall move the dial to the extent of one tooth. The amount of the contents required being now

obtained from the bottle it is restored to its former position and in doing this the ball E slips down the spindle F and striking the lower collar *d* restores the spindle and its arm H to its former position at the same time the inclined projection L being likewise depressed the lever J is by means of a spring caused to move backward to such a distance that the point of the spring catch K comes in contact with another tooth of the dial. A second spring catch M on the plate C prevents the dial from turning while the catch K is being withdrawn. On the dial are marks corresponding in number to that of the teeth which in the drawing I have shown to be 72 although this number can be increased at pleasure. It will be thus seen that every time the bottle is used for pouring a portion of its contents therefrom the dial will be moved a certain distance which is at once ascertained by examining the position of the dial in respect to the pointer *h*.

What I claim and desire to secure by Letters Patent is—

The spindle F with its sliding ball E, in combination with the arm H projection L lever J spring catch K and dial G or their equivalents arranged and constructed substantially in the manner and for the purpose specified.

JOHN SMYLIE.

Witnesses:
HENRY HOWSON,
WILLIAM E. WALTON.