E. ZAHRINGER.

REGISTERING DEVICE FOR BOTTLES.

No. 186,512. Patented Jan. 23, 1877.

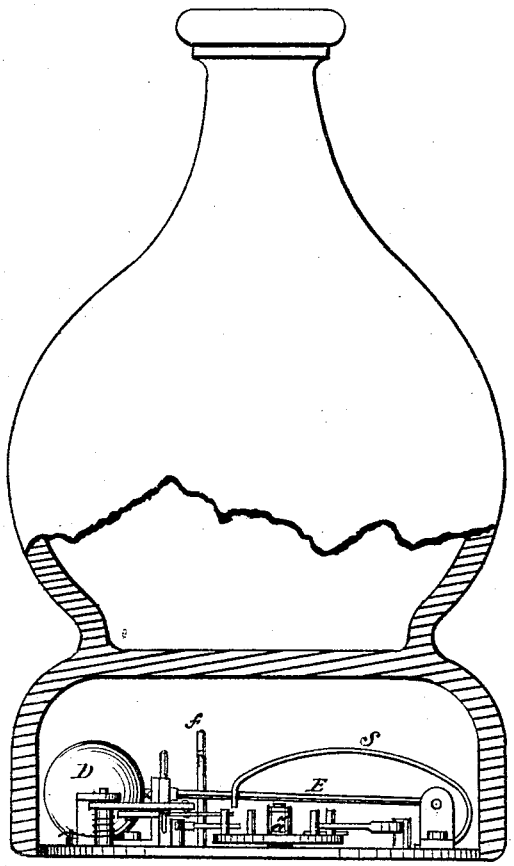
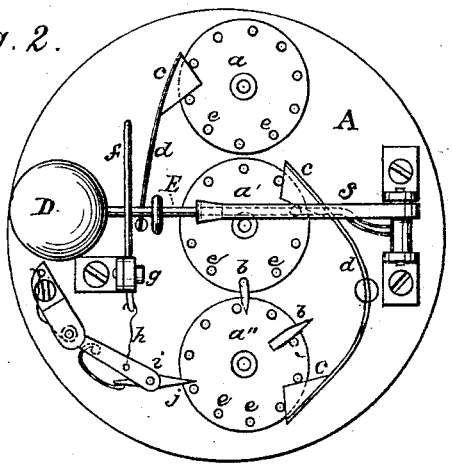
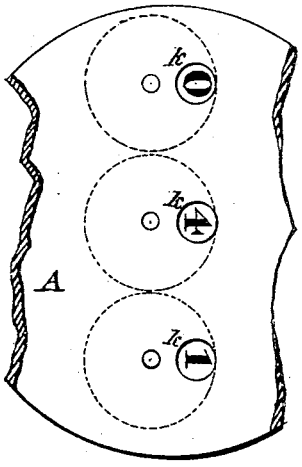


Fig. 1.

Fig. 3.

Fig. 2.





Witnesses.

Robert S. Sill

Jonathan Ord.

Inventor.

Eugen Zahringer

per Josiah R. Ellis

Attorney

UNITED STATES PATENT OFFICE.

EUGEN ZAHRINGER, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN REGISTERING DEVICES FOR BOTTLES.

Specification forming part of Letters Patent No. **186,512**, dated January 23, 1877; application filed July 12, 1876.

To all whom it may concern:

Be it known that I, EUGEN ZAHRINGER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Registering Device to be Applied to Bottles, &c., of which the following is a specification:

The nature of my invention will be readily understood from the following description, taken in connection with the accompanying drawing, wherein—

Figure 1 represents a bottle, partly in section, clearly exhibiting, in elevation, my improved registering contrivance as applied thereto; Fig. 2, a plan of said registering mechanism; Fig. 3, a large portion of the outside plate, provided with holes, through which the numerals or moving figures may be seen.

On the circular plate, edge to edge, and in a line with each other, are three revolving disks, *a a' a''*, upon each of which are erected ten short pins, *e e e*, and, in addition, two of said disks are provided each with a projecting finger, *b*, so arranged that on each complete revolution of the principal disk *a''* its finger *b* will operate against one of the pins of the adjoining disk *a'*, and transmit a portion of that movement thereto equal to one-tenth of a revolution; and such secondary disk *a'* will in turn, by each complete rotation on its axis, bring its finger *b* in contact with one of the pins on the third disk *a*, and cause it to move just one-tenth of a revolution. Thus, for each complete turn of the third disk *a*, the secondary disk *a'* is compelled to rotate ten times, and the principal disk *a''* one hundred times.

To prevent the disks from moving only at the regularly-required intervals, a triangular-shaped cam, *c*, attached to the end of a slender spring, *d*, is caused to press against and between two pins of each disk. The rotation of the several disks, and each at its proper turn, is effected by a heavy weight, D, attached to one end of a long lever, E, so pivoted to the large plate A as to have a slight outward movement on the turning of the bottle, as in the act of pouring therefrom. A spring, S, on top of this long lever, tends to assist the weight in regaining the position it occupies when at rest.

To operate the several disks by means of this weight, an arm, *f*, is so pivoted on a stand, *g*, affixed to the plate A, as to lie directly across and upon the long lever, said arm being attached, by means of a small wire link, *h*, to a spring-pawl, *i*, so constructed as that its operative end *j* will pass behind one of the several pins *e* on the first-mentioned disk *a''*, that on the movement of the weight will cause it to travel or rotate just one-tenth of a revolution, and then return to engage with the next or following pin, so that the necessary rotation of the disks is made to occur substantially in the manner hereinbefore-stated.

On the opposite side of these small disks are stamped the figures or numerals running from one to ten, and corresponding with each circle of numbers is a small hole, *k*, cut in the large plate, by which their rotation may be seen, so that on looking at the holes after the bottle has been turned, the number of times the bottle has been turned may be easily read in figures.

I do not claim as new the arrangement of two or more rotating disks upon a perforated plate, that being among the most common forms of registers.

I claim—

In a registering device for bottles, the combination, with the base-plate A, perforated, as shown, and fitted with the disks *a a' a''*, numbered upon their outer faces, and provided with the pins *e e*, fingers *b*, and stop-cams *c*, of the weighted actuating-lever E, with its spring S, and the bell-crank lever *f* and pawl *i*, with their connecting-link *h*, the whole constructed and operating substantially as described, and for the purpose set forth.

EUGEN ZAHRINGER.

Witnesses:

JOSIAH W ELLS,

ROBERT S. SILL.