(No Model.)

# J. A. TROTTIER.

## BOTTLE ALARM.

No. 475,526 Patented May 24, 1892.

Fig. 1.

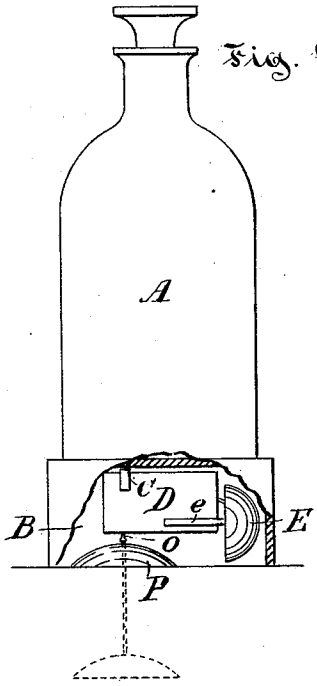



Fig. 2.

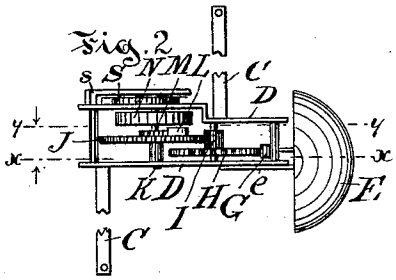



Fig. 3.

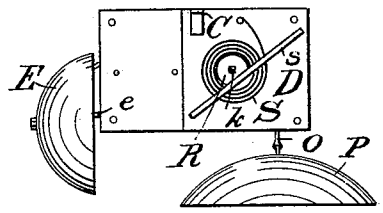



Fig. 4.

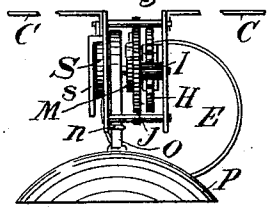



Fig. 5

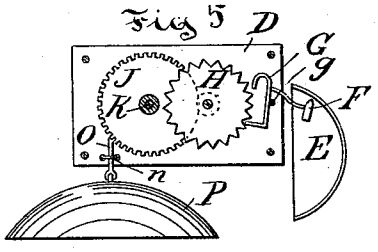



Fig. 7.

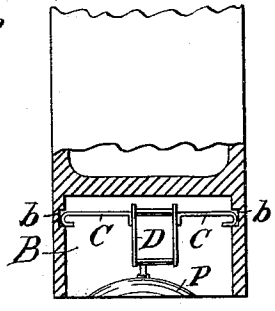
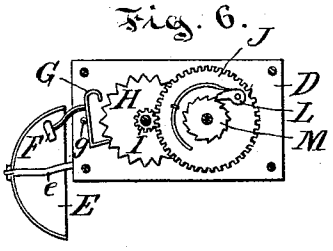



Fig. 6.

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# UNITED STATES PATENT OFFICE.

JOSEPH ADELARD TROTTIER, OF VALLEYFIELD, CANADA.

## BOTTLE-ALARM.

SPECIFICATION forming part of Letters Patent No. 475,526, dated May 24, 1892.

Application filed May 21, 1891. Serial No. 393,584. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH ADELARD TROTTIER, a citizen of Canada, residing at Valleyfield, in the county of Beauharnois, in the Province of Quebec, have invented certain new and useful Improvements in Bottles for Pharmaceutical Purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part thereof, in which—

Figure 1 is a side elevation, partly broken away, of my improved bottle. Fig. 2 is a top view of the striking mechanism. Fig. 3 is a side view of the same. Fig. 4 is an end view of the same. Fig. 5 is a vertical section on line *x x*, Fig. 2. Fig. 6 is a vertical section on line *y y*, Fig. 2. Fig. 7 shows a modification of the shape of the bottle and manner of securing the mechanism therein.

The object of my invention is to provide a device whereby the mistakes liable to be made by druggists and others when making up prescriptions may be reduced to a minimum.

To this end my invention consists in providing the bottle with an alarm mechanism combined with a spring-actuated winding-drum and weighted cord in such manner that on lifting the bottle the weight will act both to set the spring-actuated winding-drum under tension and operate the alarm mechanism, and thus enable the reaction of the spring-actuated drum to be applied wholly in winding the cord when the bottle is set down.

Referring to the drawings, A represents a bottle having a chamber B formed under the bottom of the bottle proper. This chamber is open at its base, forming a stand for the bottle, and may either be formed integrally with the said bottle or attached thereto.

In the chamber B is secured by the arms C the frame-work D of the striking mechanism. The arms C may be secured by rivets or screws or in a groove *b*, formed in the interior of the chamber B, as shown in Fig. 7.

To one end of the frame-work D is secured a rod *e*, carrying at its extremity a small gong E, adapted to be struck by the hammer F, carried on the pallet G of the escapement. The axle of this pallet is journaled in the sides of the casing. Journaled so as to operate the pallet is the escapement-wheel H, carrying on its axle the pinion I, gearing with the gear-wheel J on the shaft K, journaled in the sides of the casing. This gear-wheel J is loosely mounted on the shaft K and connected therewith by the spring-pawl L and ratchet-wheel M, secured on the said shaft. A drum N is also rigidly secured to the said shaft K, adapted to receive the band O, to the free end of which is secured the weight P. A guide *n* is provided to guide the band O on the drum.

The operation of the device as far as described is as follows: The band O being wound on the drum N, when the bottle is lifted from the shelf the weight P pulls down the band O and the motion of the drum and shaft K is transmitted to the gear-wheel J by the pawl and ratchet L M, thus operating the pinion and escapement, causing the hammer to be agitated and ring the gong. In order to wind the band O on the drum N when the bottle is replaced, the shaft K projects through one side of the casing, having a square end *k*, and on this end is secured the spring-drum R, on which is wound the spring S, held in place by the guide *s*. This spring is just powerful enough to wind the band on the drum without the weight, but is not powerful enough to prevent the weight from falling the length of the band. The weight, when the bottle is lifted from its place, falls to the position shown by the dotted lines in Fig. 1. When it is put back, the weight rests on the shelf, and the strain thus taken off the band enables the spring to wind it up on the drum.

By arranging the parts, as described, so that the gravitating weight, when the bottle is raised, will both set the spring under tension and sound the alarm the reaction of the spring, when the cord is relieved of its weight on setting the bottle down, is wholly and entirely applied in winding the cord upon the drum. This I deem of importance in that a comparatively feeble spring may be employed with consequently a small amount of friction on the bearing and in that the cord will be promptly and quickly wound immediately upon setting the bottle down, no matter how quickly it may be done, thus avoiding any derangement or confusion of the mechanism.

What I claim is—

The combination, with a bottle, of a bell and tapper, a drum, a weighted cord attached to

the drum, a spring for winding the cord upon the drum when the cord is relieved of its weight, a pinion, a ratchet-and-pawl mechanism connecting the drum and pinion in such manner that the latter will be turned only when the cord is unwound, and suitable connections between the pinion and the tapper for actuating the latter when the pinion is turned, whereby the weight acts both to set the spring under tension and to cause the alarm to sound, thereby enabling the reaction of the spring to be applied wholly in winding the cord upon the drum.

Signed at Valleyfield this 7th day of April, 1891.

JOSEPH ADELARD TROTTIER.

In presence of—
R. S. JORON,
DONAT DUBUC.