(No Model.)

S. W. LANE.

SAFETY ATTACHMENT FOR DRUGGISTS' BOTTLES AND JARS.

No. 367,642. Patented Aug. 2, 1887.

Fig. 3.

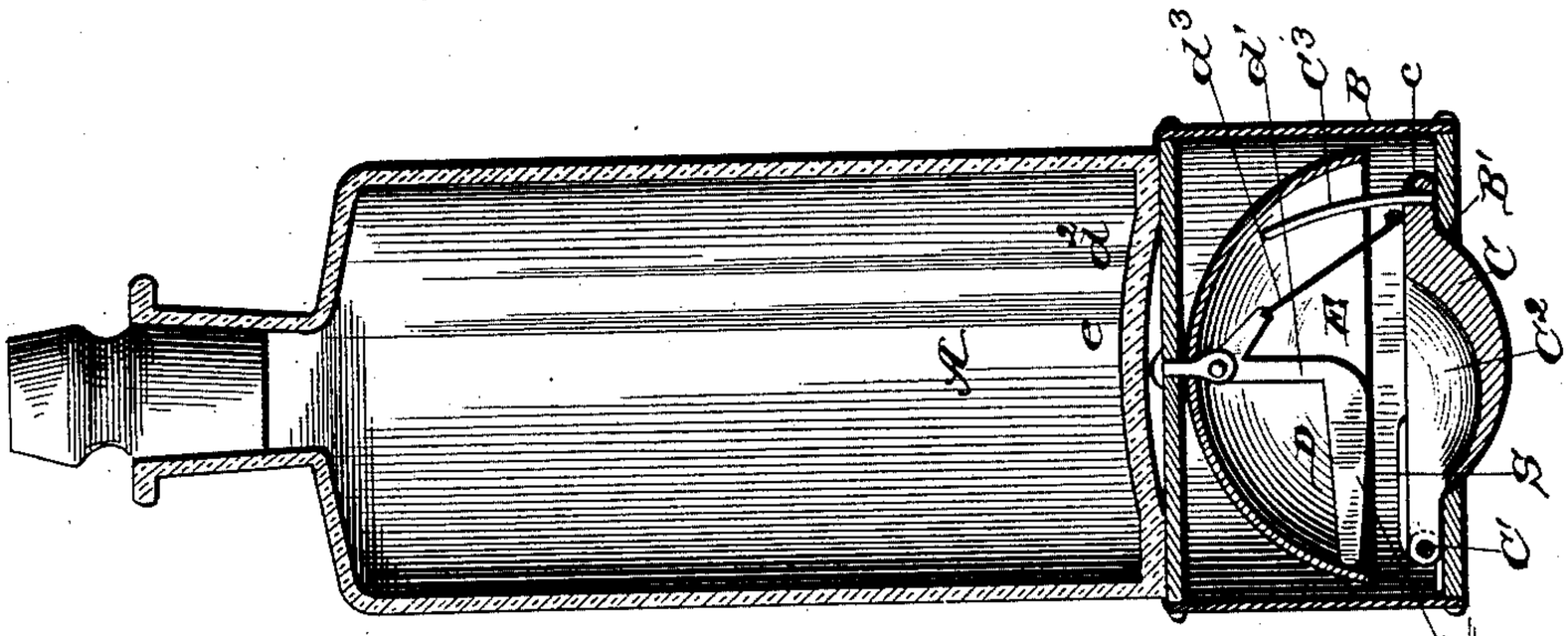

Fig. 2.

Fig. 1.

Witnesses

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SAFETY ATTACHMENT FOR DRUGGISTS' BOTTLES AND JARS.

SPECIFICATION forming part of Letters Patent No. 367,642, dated August 2, 1887.

Application filed April 15, 1887. Serial No. 234,950. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY W. LANE, a citizen of the United States, residing at Wesley, in the county of Worcester and State of Maryland, have invented a new and useful Improvement in Safety Attachments for Druggists' Bottles and Jars, of which the following is a specification.

My invention relates to a safety-alarm to be used in connection with bottles containing poisonous materials or explosives; and it consists in the construction, combination, and arrangement of the several parts of the same, which will be more fully hereinafter described, and pointed out in the claims.

One object of my invention is to provide a safety-alarm in connection with bottles containing poisonous or explosive materials, which will automatically give an alarm when the bottle is lifted from its position of rest and thereby notify or call the attention of the person raising the same to the nature of the contents thereof.

A further object of my invention is to provide a safety-alarm for use in connection with bottles, which is of simple and effective construction and operation, strong and durable, readily attached in connection with any form of bottle, positive in its desired ultimate result, and cheaply manufactured.

I attain these objects by the mechanism illustrated in the accompanying drawings, wherein like letters of reference indicate similar parts in the several views, and in which—

Figure 1 is a perspective view of a bottle with my improved form of safety-alarm shown in connection therewith. Fig. 2 is a transverse vertical section of the same, showing the position of the several parts of the alarm when the bottle is in a position of rest. Fig. 3 is a view similar to Fig. 2, showing the position of the alarm mechanism when the bottle is lifted.

A indicates a bottle of suitable construction and proportion, to the lower portion of which a metallic casing, B, is secured, and which incloses the alarm-actuating mechanism, and is provided with an opening, B′, in its lower portion. To one side of the lower portion of the casing B, and adjacent to the opening B′, a gravity-actuated weight, C, is hinged at the point C′, and is constructed with a decreased portion forming a rim which rests on the edges of the lower portion of the casing B, adjacent to the opening B′, when the bottle is raised from a position of rest, as shown in Fig. 3. This gravity-weight has a recess, C^2, formed in its upper side, in which a lever, D, is adapted to project when the bottle is in a position of rest, as shown in Fig. 2. A spring, S, is secured to the hinged portion of the weight C, and extends over and bears on the inner surface thereof, and thereby acts as an auxiliary to force the said weight down when the bottle is lifted. An aperture, *c*, is formed in the opposite side of the said weight C, which encircles a guide-arm, C^3, secured to the lower portion of the casing B, and which passes through said aperture *c*. This guide arm C^3 is constructed of a slight wire or strip of metal and gradually curved longitudinally to conform to the curved line of elevation assumed by the gravity-weight when it is forced into the casing B when the bottle is in a position of rest, and to also guide the said weight in its descent when the bottle is lifted.

The lever D is constructed with an enlarged end, *d*, which extends at right angles to the upper end and is adapted to enter the recess C^2 in the weight C, and which also forms a clapper for striking a bell or gong, E, secured by a central rivet, *e*, to the casing B. The said lever D is also constructed with an arm, *d′*, of smaller dimensions than the arm *d* thereof, and which extends vertically upward when the bottle is lifted, and has a short inclined arm, d^2, integral therewith, and which projects away therefrom at an angle, and has a flexible connection in the form of a wire or cord, d^3, connected by one end to said inclined arm, the other end thereof being secured to the weight C. This lever D is pivotally mounted and is retained in connection with the central portion of the bell or gong E by means of the connection through the knee formed by the intersection of the arms *d′* and d^2.

When the bottle A is in a position of rest, the parts of the alarm will assume the position shown in Fig. 2, with the weight C raised up in the casing B against the action of the spring S, and the lever D lowered, as shown, with the enlarged portion *d* thereof entering the recess C^2, formed in the weight C, and the flexible connection d^3 relaxed. When, however, the bottle is raised from its position of rest, as shown in

Fig. 3, the weight C is forced down by gravity, combined with the resilient effort of the spring S. The flexible connection d^3 will be quickly drawn taut and jerk the enlarged clapper portion d of the lever D up against the side of the bell or gong and ring the same and notify the person lifting the bottle provided with the alarm that it contains a poisonous or explosive material by calling his or her attention to the signal, which will cause a scrutiny of the contents of the said bottle as indicated by label or otherwise, and thereby obviate serious mistakes and accidents.

The novelty, utility, and adaptability of my improvement is apparent; and it is obvious that many slight variations in the construction and arrangement of the several parts could be substituted for those shown and described without in the least departing from the nature and principle of my invention.

The contour of the lower side of weight C, being convex with no projection, forms no impediment against sliding the bottle on or off of the shelf upon which it may rest without lifting the same from contact with said shelf. When the bottle is slid off of the shelf, as just described, the alarm will be operated and give a signal in a manner similar to that when the bottle is lifted, thereby making it impossible to displace the bottle from its position of rest without causing a striking of the bell or gong in connection therewith.

I may apply the invention to jars, jugs, or other vessels.

Having thus fully described my invention, what I claim, and wish to secure by Letters Patent, is—

1. The combination, with a bottle, of the safety bell-alarm mounted in connection with the lower portion thereof, a gravity-weight hinged to one side of the alarm-casing, and the lever actuated by the said weight to strike the bell, substantially as described.

2. The combination, with a bottle, of the casing secured to the lower portion thereof, a bell or gong mounted therein, a lever fulcrumed in connection with the upper portion of the casing, having a striking end adapted to ring the bell, a gravity-weight hinged to one side of and having its convex side operating through an opening in the bottom of the casing, and the flexible connection d^3 between the weight and lever for causing the lever to strike the bell when the weight drops through the opening in the bottom of the casing, substantially as described.

3. The combination, with a bottle, of the casing B, secured thereto and having an opening, B′, in the lower portion thereof, a weight, C, hinged to one side of the opening B′ and constructed with a lower projecting convex surface adapted to pass through the opening B′ and an upper concavity, C^2, the angularly-formed lever D, the bell E, suspended above the said lever and weight, and the flexible connection d^3 between the weight and casing for causing the said lever to strike the bell when the weight drops through the opening in the bottom of the casing, substantially as described.

4. In combination with a casing mounted in connection with the lower end of a bottle or jar, an alarm fitted to the casing, and a swinging gravity-weight connecting with the alarm and held up within the casing when the bottle or jar is in its normal position, whereby when the bottle or jar is moved off the shelf, whether vertically or laterally, the alarm will be sounded, as set forth.

5. The combination, with a bottle, A, of the casing B, secured thereto, and having an aperture, B′, in the lower portion thereof, a weight, C, having a lower convex projecting surface hinged to said casing B and adapted to pass through the aperture B′ thereof, the guide-arm C^3, the bell E, suspended above the weight C, the lever D, constructed as set forth, and the flexible connection d^3 between the weight and the lever for causing the lever to strike the bell when the weight drops through the opening in the bottom of the casing, substantially as described.

6. The combination, with a bottle, A, of the casing B, secured thereto, and having an aperture, B′, in the lower portion thereof, a weight, C, hinged to the casing B, and having a lower convex projecting surface and a recess in its upper surface, the spring S, engaging with the upper surface of the said weight, the guide-arm C^3, the bell E, suspended above the weight C, the lever D, constructed as set forth, and the flexible connection d^3, connecting one arm of the said lever with the weight C, substantially as described, and for the purposes specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of witnesses.

SIDNEY W. LANE.

Witnesses:
E. G. SIGGERS,
WM. W. MOORE,
MYRTLE STALNAKER.