(No Model.)

M. FULDA.

ALARM FOR POISON BOTTLES.

No. 352,051. Patented Nov. 2, 1886.

Fig. 1.

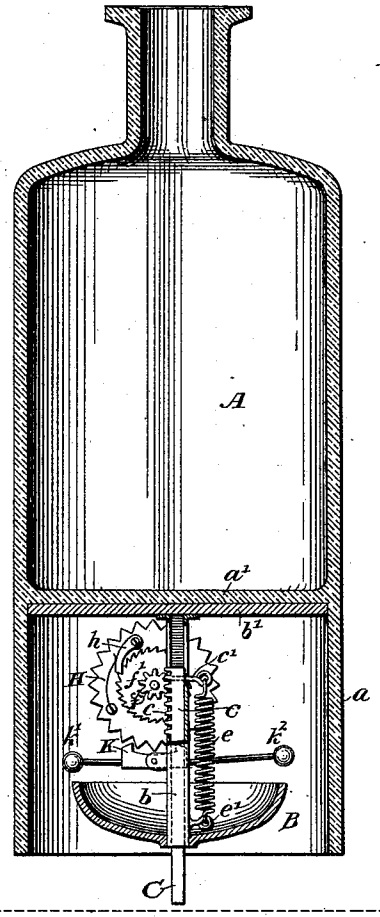
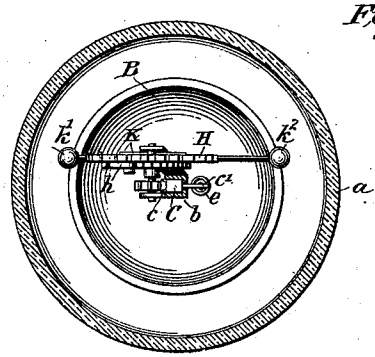


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

MAX FULDA, OF NEW YORK, N. Y., ASSIGNOR TO EINBIGLER & ADLER.

ALARM FOR POISON-BOTTLES.

SPECIFICATION forming part of Letters Patent No. 352,051, dated November 2, 1886.

Application filed November 21, 1885. Serial No. 183,579. (No model.)

To all whom it may concern:

Be it known that I, MAX FULDA, a subject of the Emperor of Germany, residing in the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Alarms for Poison-Bottles, of which the following is a specification.

My invention relates to the class of devices employed for preventing the accidental use of bottles containing poisons or poisonous mixtures in the preparation of prescriptions, and for similar purposes.

The object of the invention is to provide means for preventing the accidental use of poisons through negligence or mistake in taking the wrong bottle from the shelf—as, for instance, by a druggist—and for giving an indication each time that a bottle containing a dangerous or poisonous substance is used.

The invention consists in applying to a bottle an automatic alarm device, which, when the bottle is placed upon the shelf, is set in position to give an audible signal or other alarm when the bottle is lifted.

I am aware that it has been proposed to place a burglar-alarm and operating mechanism in the base of a portable case. The spring is wound manually, and is held in check when it is wound by a detent-arm projecting downward so as to rest upon the surface upon which the object stands. When the object is lifted or a knob touched, the detent releases the spring. Such construction I do not claim.

In carrying out the invention I prefer to place within a suitable cavity at the bottom of the bottle, or in a case attached to the bottle, an alarm-bell provided with a hammer which is vibrated through the instrumentality of a toothed wheel. The toothed wheel is driven by means of a spring, which is wound when the bottle is set down and released when the bottle is lifted.

There are numerous ways in which the alarm may be given; but, in connection with the accompanying drawings, one will be described especially well adapted to carrying out the invention.

In the drawings, Figure 1 is a transverse vertical section of the bottle with the alarm attachment. Fig. 2 is a cross-section of the same.

Referring to the figures, A represents a bottle, which in this instance is preferably constructed with a downwardly-projecting flange, *a*, in which the alarm device is placed. This device consists of a bell or gong, B, supported upon a hollow spindle or sleeve, *b*, which is secured to a plate, *b'*. The plate is cemented or otherwise secured against the bottom *a'* of the bottle, as shown. Within the sleeve *b* there extends a rod, C, provided with a rack or toothed portion, *c*, projecting through a slot formed in one side of the hollow spindle. A pin, *c'*, projecting through a slot in the opposite side of the spindle, is attached to the rod. A spring, *e*, is fastened at one end to this pin, and at the other end to a pin, *e'*, secured to the spindle *b*. This spring normally tends to press the rod downward from the spindle, as shown in the drawings. When, however, the bottle is placed upon a shelf, its weight draws the rod upward, extending the spring. The toothed portion engages a pinion, f^2, carried upon a shaft rigid with a ratchet-wheel, *f'*. This wheel is connected by a pawl, *h*, with a toothed wheel, H, and when the rod *b* is pushed upward the pinion and ratchet-wheel revolve without actuating the toothed wheel H. When, however, the bottle is raised, the spring *e*, drawing the rod downward, turns the pinion in the opposite direction, and by reason of the pawl the toothed wheel H is also driven forward. The motions of the wheel H are employed for vibrating an escapement, K, carrying one or more striking-hammers, (shown at *k'* and k^2.) These are caused by the vibrations of the escapement to strike against the bell B and give an alarm whenever the pawl is raised.

It is obvious that the precise method of organization of parts described is not necessary to carry out the invention, but may be modified to a considerable extent without departing from the spirit of the invention. Instead of inclosing the alarm in a flange of the bottle, it may be attached by means of a cup applied to the bottle itself.

By means of this device the danger of poisonous mixtures being given for harmless remedies is to a very great extent obviated, for not only will the attention of the druggist be called whenever he takes a bottle containing poison, but also the person waiting for a

prescription will be notified that a poisonous ingredient is being employed.

I claim as my invention—

1. The combination, substantially as herein-before set forth, of a bottle for containing poisonous substances, an alarm device attached to the bottle, a spring operating said device, a rod projecting below the bottom of said bottle, and a mechanical connection between said rod and spring for storing force in said spring when the rod is pressed upward by the weight of the bottle.

2. The combination, substantially as herein-before set forth, of a bottle, a bell attached thereto, a hammer for striking the bell, a toothed wheel for operating said hammer, a spring operating said toothed wheel, and a rod extending below the bottom of the bottle for putting the spring under tension and releasing it therefrom each time the bottle is set down and raised.

3. The combination, substantially as herein-before set forth, of a bottle, a bell carried beneath said bottle, a hammer for striking the bell, a hollow sleeve supporting said bell, a rod extending within said sleeve, a toothed portion upon said rod, a pinion gearing with said toothed portion, a toothed wheel arranged to be revolved by said toothed portion and pinion, to operate the bell-hammer when the toothed portion is moved in a given direction, a spring connected with the rod to move said pinion, and means for moving the rod to put the spring under tension.

In testimony whereof I have hereunto subscribed my name this 18th day of November, A. D. 1885.

MAX FULDA.

Witnesses:
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