

No. 707,759.

Patented Aug. 26, 1902.

E. BURNS.  
NON-REFILLABLE BOTTLE.

(Application filed Jan. 25, 1902.)

(No Model.)

FIG. 1.

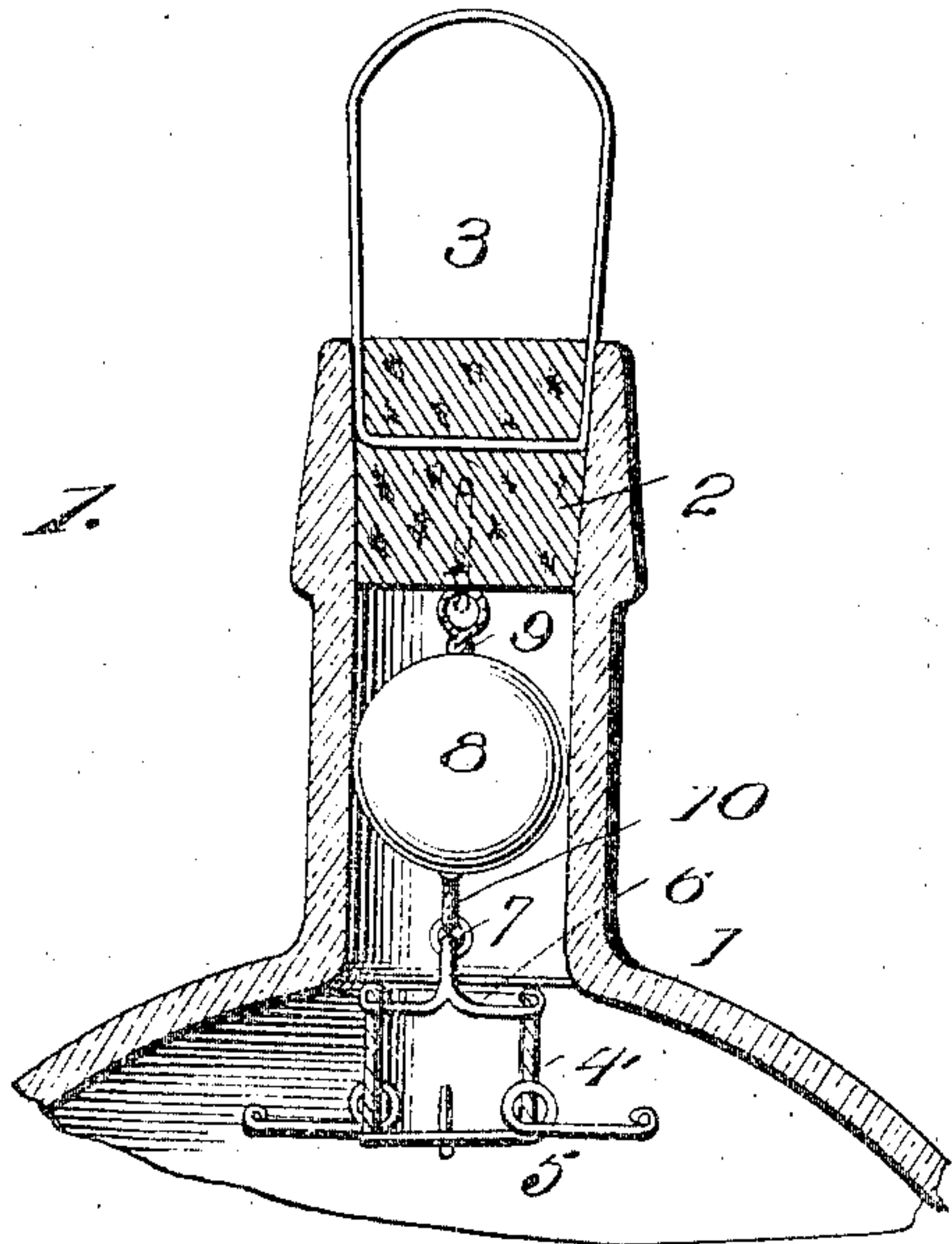


FIG. 2.

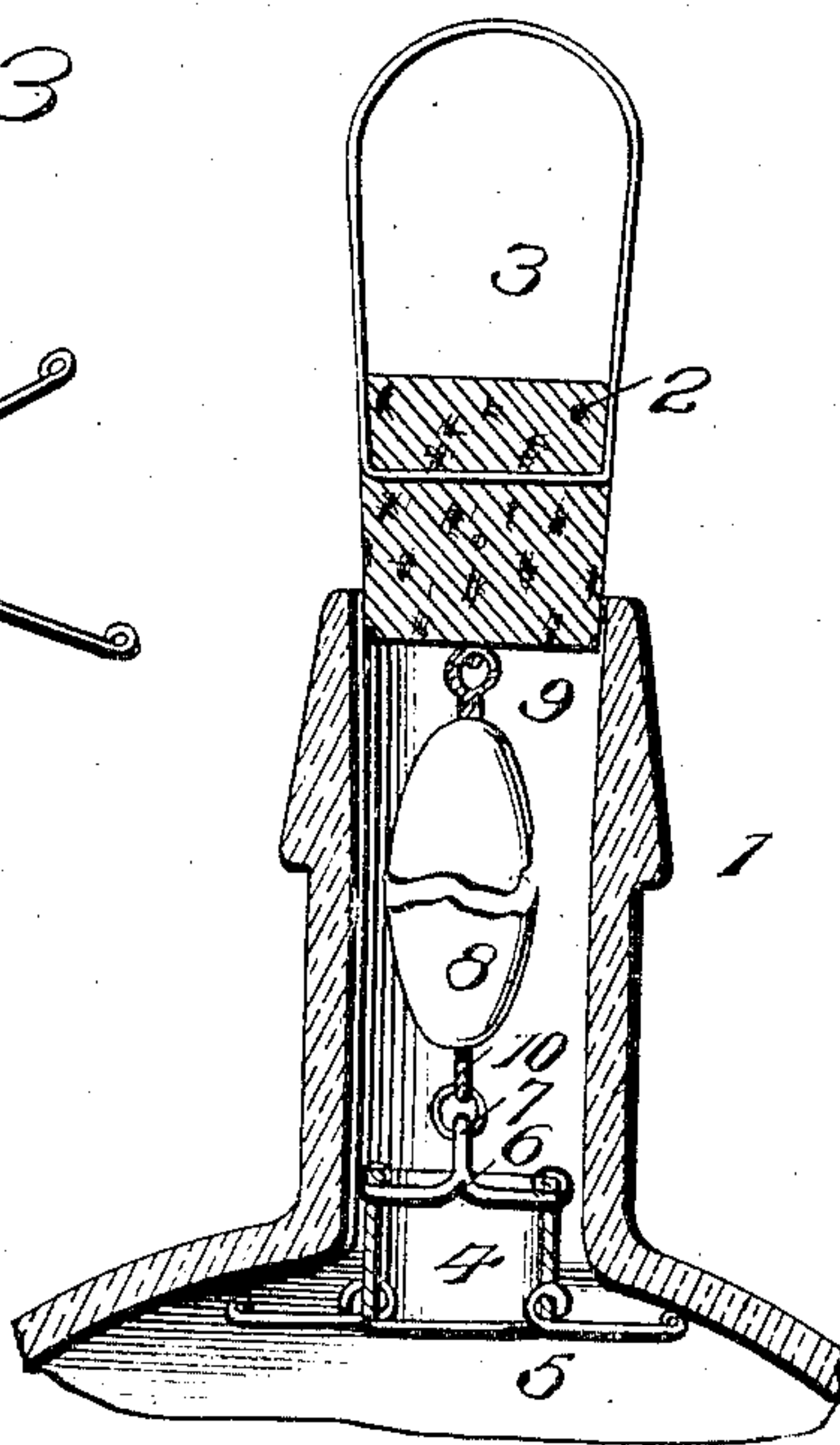


FIG. 3.

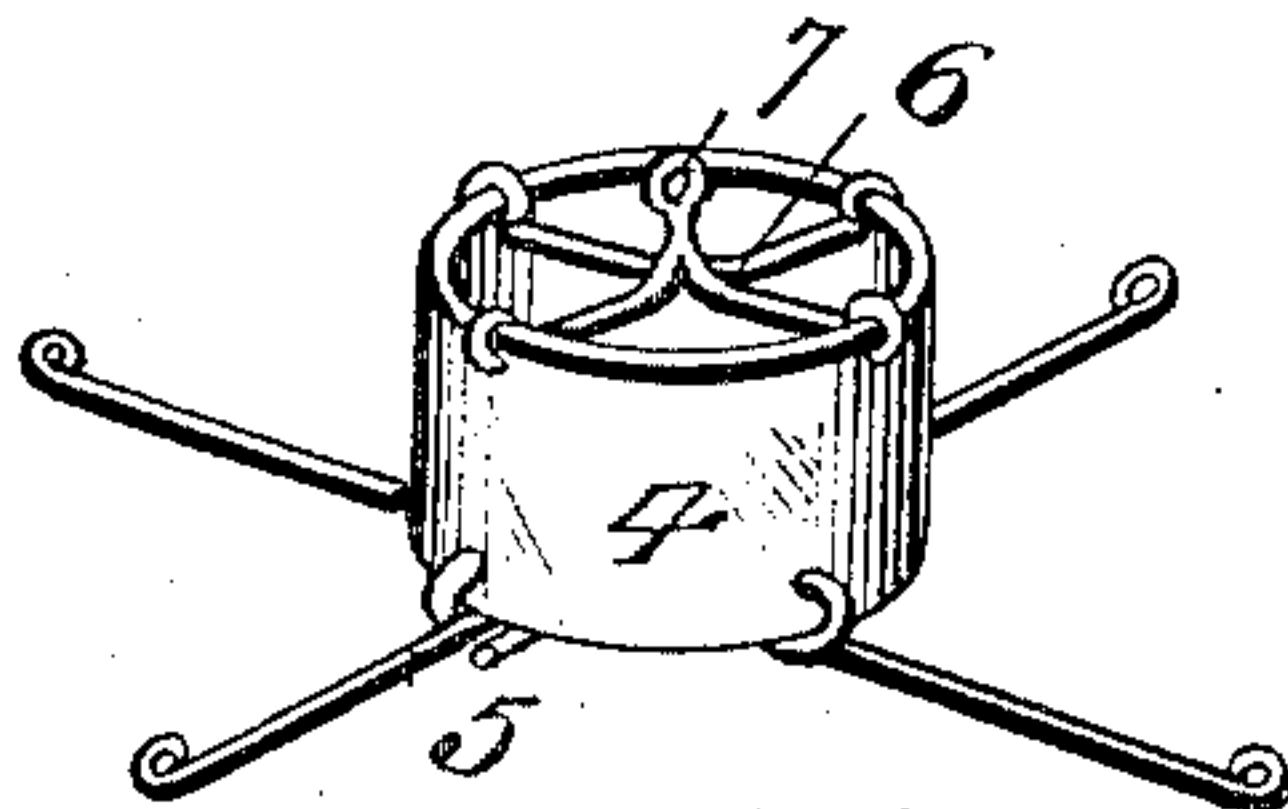
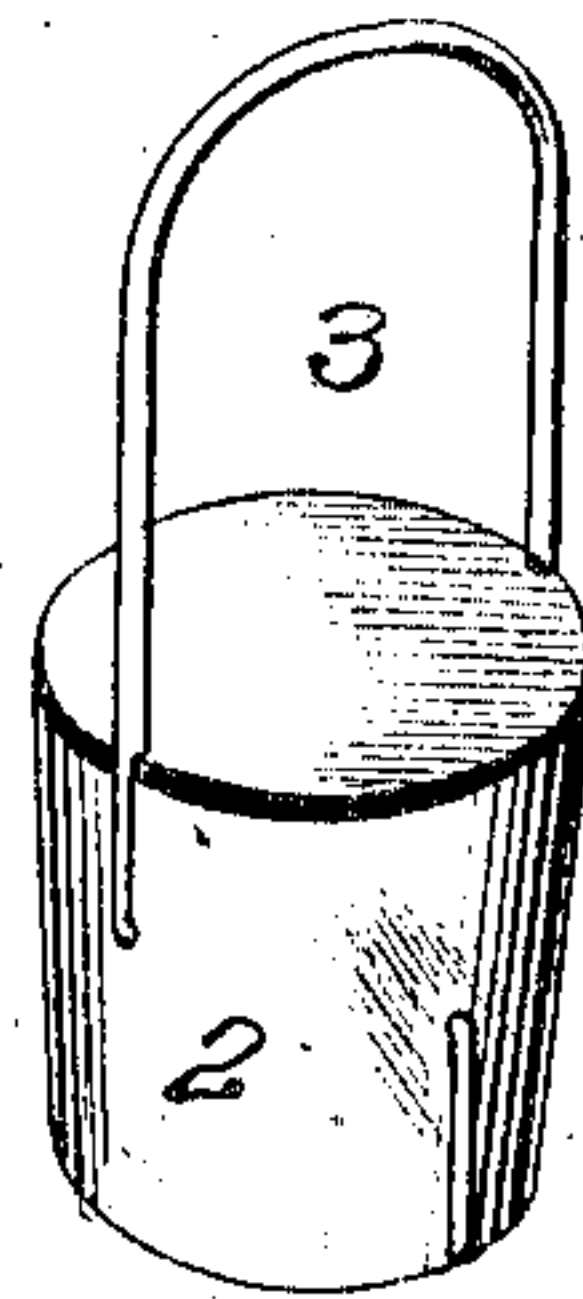


FIG. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

EDWARD BURNS, OF ZEARING, IOWA.

## NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 707,759, dated August 26, 1902.

Application filed January 25, 1902. Serial No. 91,234. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD BURNS, a citizen of the United States, residing at Zearing, in the county of Story and State of Iowa, have  
5 invented certain new and useful Improvements in Non-Refillable Bottles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it  
10 appertains to make and use the same.

The purpose of this invention is to protect the public and the manufacturer or proprietor of a special brand of goods from unscrupulous dealers and others through whose  
15 hands the goods pass.

The invention has for its object to combine with the cork or sealing device a detector of peculiar and novel construction held in suspension thereby and detached from the cork  
20 when the latter is extracted, said detector dropping to the bottom of the bottle or receptacle, thereby apprising the purchaser of the fact that the package has been tampered with.

The invention also consists of an inflatable  
25 connection between the detector and cork to be destroyed when the cork is removed.

The invention further consists of the novel features and details of construction, which hereinafter will be more particularly set forth,  
30 illustrated, and finally claimed.

In the drawings hereto attached and forming a part of the specification, Figure 1 is a vertical central section of the upper portion of a bottle, showing the application of the in-  
35 vention. Fig. 2 is a view similar to Fig. 1, showing the cork partly extracted. Fig. 3 is a perspective view of the detector. Fig. 4 is a perspective view of the stopper and extracting-loop.

Corresponding and like parts are referred  
40 to in the following description and indicated in all the views of the drawings by the same reference characters.

The bottle 1 is adapted to be sealed in the  
45 usual manner by means of a cork 2, which in the present instance is provided with a loop 3, preferably of wire, to facilitate the extraction of the cork when desired. The extracting-loop 3 is folded close about the neck of  
50 the bottle after the latter has been sealed, so as not to be in the way.

The detector is suspended within the upper

portion of the bottle and comprises a ring 4 and a plurality of wires 5, pivoted intermediate of their ends to the lower side portions  
55 of the ring, so as to occupy a horizontal position and engage with the shoulder or upper end of the bottle adjacent to the neck and prevent withdrawal of the detector after being placed in position. Radiating wires 6  
60 have their outer ends attached to the upper portion of the ring 4 and merge into an eye 7, to which the lower end of the suspending device is attached. The wires 5 constitute  
65 securing means and are adapted to be turned into a vertical position to admit of insertion of the detector into the bottle, and one end of the wires is made heavier than the other, so that the instant the uppermost ends of the  
70 wires clear the neck of the bottle the wires will turn into a horizontal position and prevent withdrawal of the detector when detached from the cork and permitted to drop to the bottom of the bottle.

The suspending device consists, preferably,  
75 of a bulb 8 and cords 9 and 10, the upper cord 9 connecting the upper end of the bulb 8 with the cork 2 and the lower cord 10 connecting the lower end of the bulb with the eye 7 of the suspending device applied to the ring 4.  
80 The bulb 8 may be a rubber tube or like device inflated to such an extent as preferably to fill the neck. This bulb or inflated device is adapted to be easily broken when  
85 extracting the cork, thereby permitting the detector to drop to the bottom of the bottle and warn the customer that the original package has been tampered with. The bulb 8 is, as aforementioned, preferably in-  
90 flatable, being made of rubber. This construction is advantageous in that upon withdrawal of the cork 2 and bursting of the bulb there will be comparatively nothing left of the latter owing to contraction of the rubber, and the detector 4 will readily fall to the bottom  
95 of the bottle. Upon pouring the liquid from the bottle upon inverting the same the detector will necessarily be thrown toward the neck portion thereof, but the bulb having been broken the portion remaining attached  
100 to the detector will offer no detriment to the egress of the fluid. Further, the bulb 8, being expansible, so fills the neck portion of the bottle that no part of the contents thereof



may come into contact with the cork, thereby providing additional means for preventing leakage from the bottle on account of a faulty cork. Not only does the bulb serve to prevent leakage, but it also serves as a further sealing device to keep any air which, due to ineffectual sealing means, may reach the contents of the bottle, thereby deteriorating the quality of the same. The detector is attached to the cork preliminary to sealing the package, and when placing the detector in the neck of the bottle the wires are turned with the heavier ends pointing upward and when the cork is in place the suspending device must be of a length to admit of the wires clearing the neck, so as to turn into a horizontal position and prevent removal of the detector when extracting the cork, the latter effecting a rupture of the suspending device and permitting the detector to drop into the bottle.

Having thus described the invention, what is claimed as new is—

1. In combination with a bottle or like package, a detector, and an inflatable suspending device connecting the detector with the cork, substantially as set forth.

2. In combination with a bottle or like

package, a detector, and an expansible bulb forming a part of suspending means connecting the detector with the cork, substantially as set forth.

3. In combination with a bottle or like package, a detector for suspension therein, the same comprising a ring and a plurality of wires pivoted intermediate of the ends to the lower portion of one side of the ring and having an end of each made heavier to cause the wires to assume a horizontal position, the light ends of the said wires adapted to abut against the opposite side of the ring, substantially as set forth.

4. In combination with a bottle or like package, a detector comprising a series of pivoted wires, a sealing-cork having an extracting-loop, and suspending means between the detector and cork comprising an inflated bulb, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD BURNS. [L. s.]

Witnesses:

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