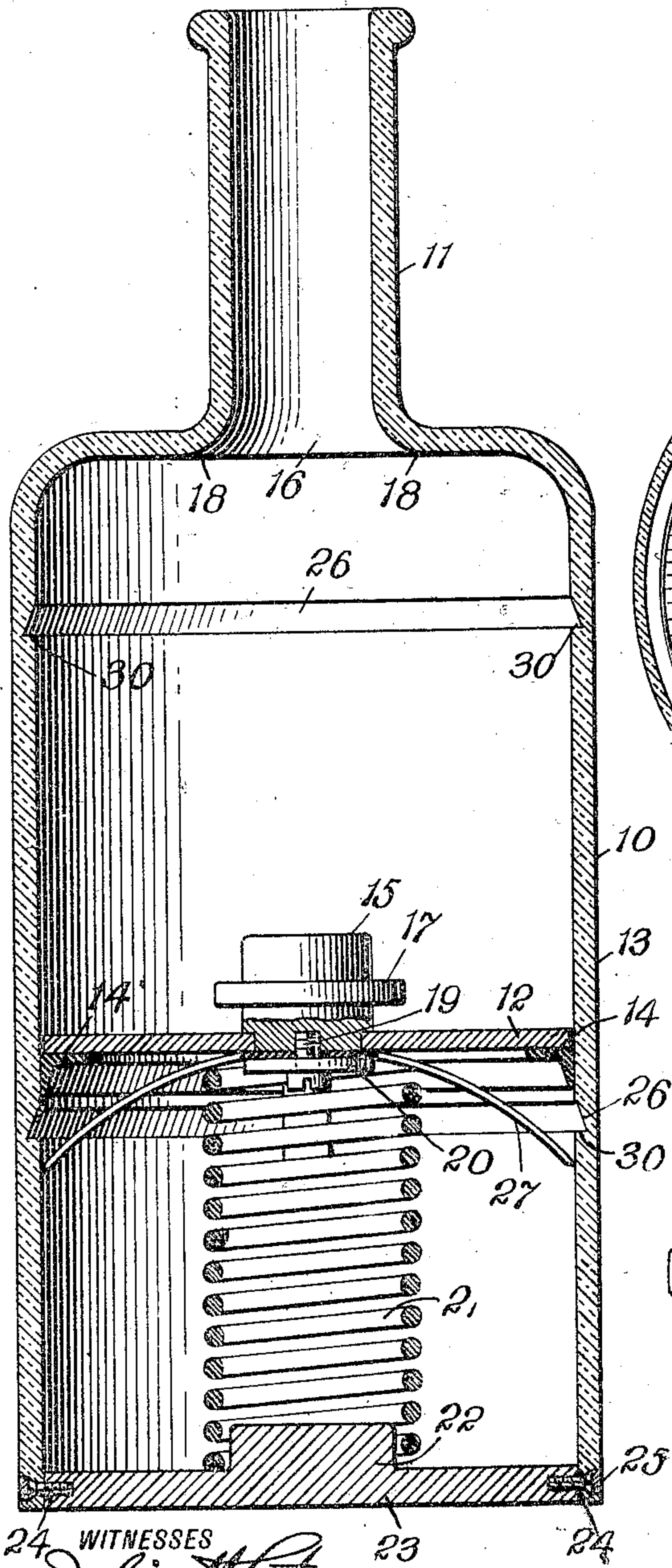


J. J. HOURIHAN.  
NON-REFILLABLE BOTTLE.  
APPLICATION FILED NOV. 23, 1908.

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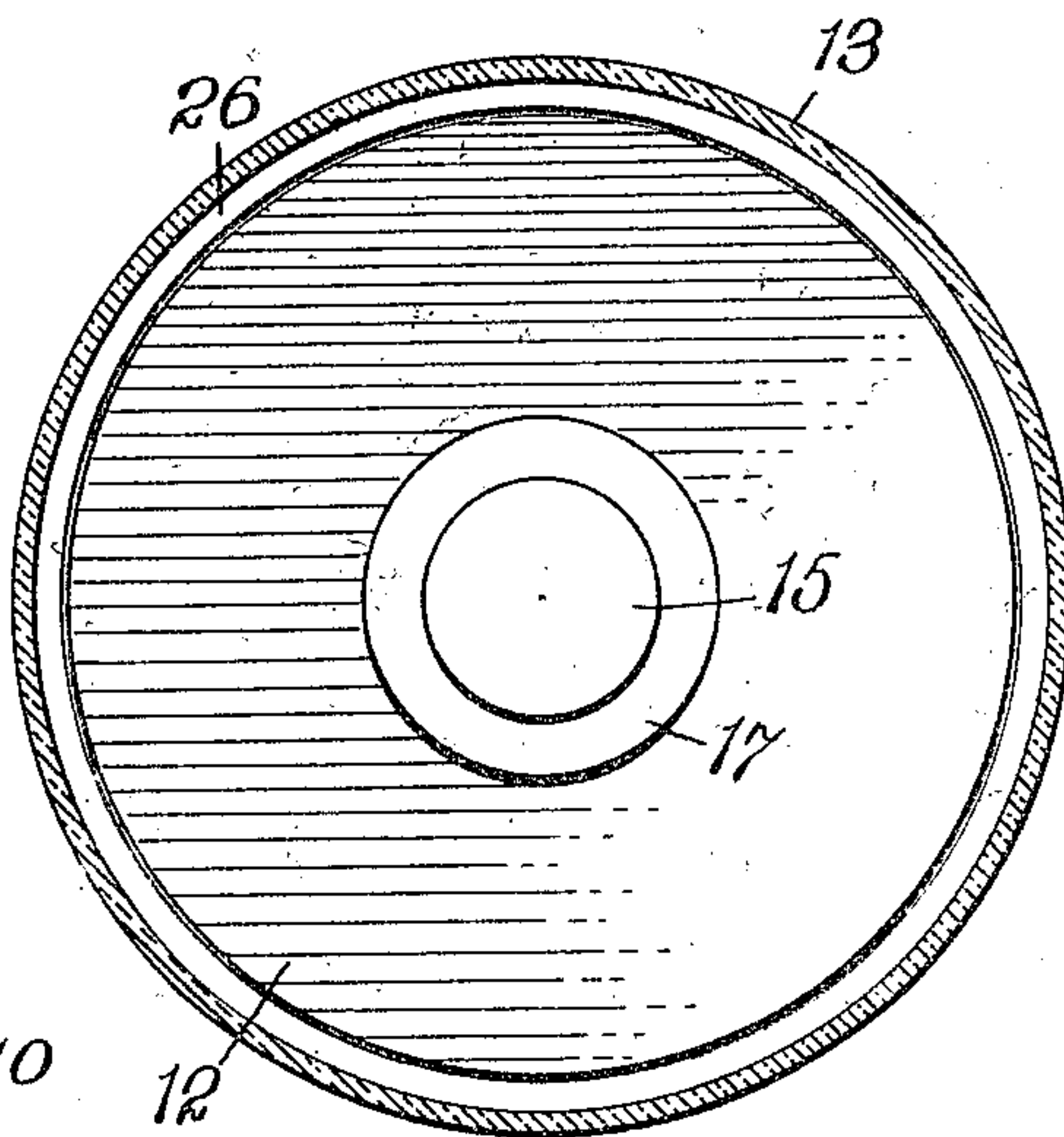
Patented Dec. 28, 1909.

*Fig. 1.*

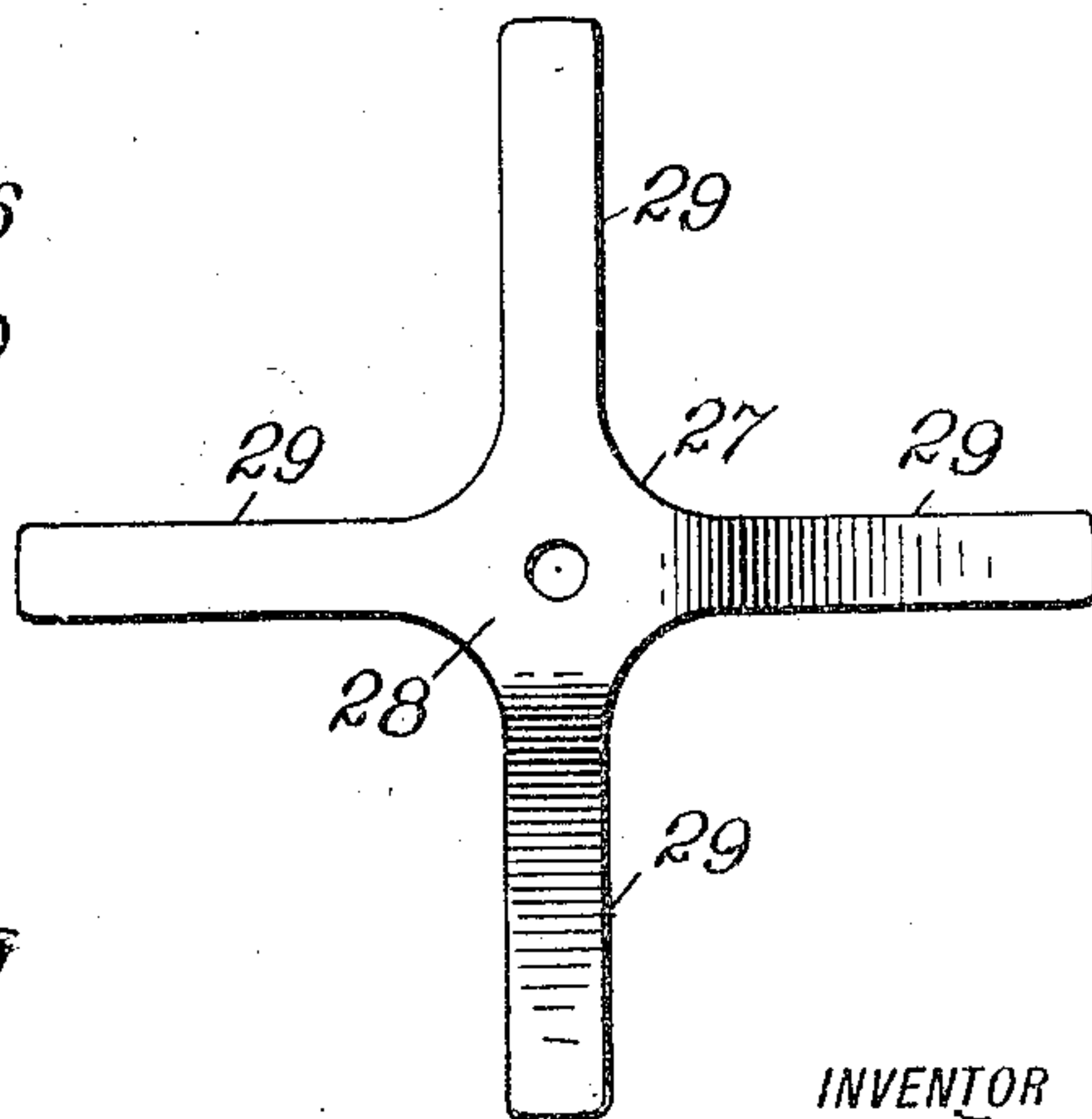


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*Fig. 2.*



*Fig. 3.*



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# UNITED STATES PATENT OFFICE.

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## NON-REFILLABLE BOTTLE.

944,439.

Specification of Letters Patent. Patented Dec. 28, 1909.

Application filed November 23, 1908. Serial No. 464,144.

*To all whom it may concern:*

Be it known that I, JEREMIAH JOSEPH HOURIHAN, a citizen of the United States, and a resident of Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a full, clear, and exact description.

This invention relates more particularly to a non-refillable bottle or other container in which the means for preventing it from being refilled is located in the lower part thereof.

The primary object of the invention is to provide a simple and efficient device which may be applied to bottles, jars, carboys and other containers adapted to hold a liquid, and which has a follower or piston arranged to move within the container as the liquid is emptied, and which when the container is empty or substantially so will be positively locked and held against movement so that it will be impossible to refill the container through the mouth thereof.

A further object of the invention is to provide a device which has effective means for locking the movable parts in position to prevent refilling and which may be applied through the bottom of the vessel or bottle in such a way as will not injure its usefulness.

With these and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and will then be pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a vertical section, partly in elevation, of one form of device embodying my invention. Fig. 2 is a sectional plan view above the follower; and Fig. 3 is a detail view of one form of device that may be employed for holding the follower.

The bottle or container 10 may be of any suitable construction, and may have the usual bottle neck 11 in the discharge opening or mouth of which may be placed the cork or stopper in the usual manner. A piston or follower 12 is arranged within the body 13 and this piston may have a suitable packing 14 on the under side thereof to prevent the liquid from passing between the same, and said packing may be attached or held to the piston in any suitable way. As

shown the piston is provided with a rod 15 which projects on one side thereof and is adapted to enter the lower part 16 of the bottle neck, and on said rod is a flange 17 of flexible or other material which is adapted to form a seal therewith by contact with the parts, as at 18, when the follower is in its extreme upward throw. The rod 15 is held to the piston 12 by a bolt 19 and washer 20, and said piston is normally forced upward in the body 13 by means of a spring 21, the lower end of which fits about a projecting part 22 on the bottom or base 23. This base or bottom 23 may be independent of the bottle and may be held to the body thereof by means of screws 24 or otherwise, the heads of which may be seated in counter-sunk holes which may be filled with any suitable material, as 25, to prevent the screws from being removed without detection for the purpose of getting at the interior of the bottle, the spring 21 being of sufficient length and of proper tension to cause the follower or piston 12 to pass upward through the body 13 as the contents of the bottle are removed.

To prevent the piston from being forced downward thereby permitting the bottle to be refilled, I arrange at one or more places an annular groove 26, and secured to the under part of the piston or follower 12 is a locking device 27. This locking device 27 may be variously constructed. As shown it consists of a central part 28 from which projects a plurality of arms 29, and these arms are of spring or yielding material and are adapted in the upward movement of the piston to enter the annular groove or grooves 26. The annular grooves are so formed that the arms 29 may pass by in the upward movement of the piston, and each have shoulders 30 which prevent the piston from being forced downward unless the arms are released from the annular grooves, which can be done only by removing the bottom from the bottle. As will be seen, when the piston or follower is in its upward extreme movement so that the flange 17 will form a seal with the bottle neck the locking device 27 will engage the upper annular groove, and prevent the piston from being forced downward, there being as many grooves as desired within the body of the bottle or container.

From the foregoing it will be seen that effective means is provided whereby a bot-



tle or container having a follower or piston therein may be made to follow the liquid as the container is emptied, and that when empty the piston will be locked in a position to prevent the liquid from being poured or forced into the container through the mouth thereof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. In a non-refillable device, the combination with a container adapted to hold a liquid, of a movable piston fitting within the body portion thereof, a rod carried by the piston and adapted to enter the mouth of the container and seal the same, and means carried by the piston for locking the same in this position.

2. The combination with a container having a discharge opening, of a bottom held to the container, a piston movable within the container, a rod carried by the piston adapted to enter the discharge opening and seal the same, a spring normally forcing the rod and the piston inward, and a device carried by the piston and adapted to lock the same and prevent downward movement thereof.

3. The combination with a container having an interior annular groove in the body

thereof and provided with a discharge opening, of a bottom held to the container, a piston movable within the container, a rod carried by the piston adapted to enter the discharge opening and seal the same, a spring normally forcing the rod and the piston inward, and a locking device having a plurality of arms carried by the piston and adapted to engage said groove and prevent downward movement of the piston.

4. The combination with a container having a discharge opening, of a piston provided with a packing movable within the container, means carried by the piston adapted to form a seal with the bottle neck, a spring normally forcing the piston inward, and means carried by the piston adapted to engage a part of the bottle and prevent downward movement thereof.

5. The combination with a bottle having a neck, of a piston movable within the bottle and provided with means to form a seal with said neck.

This specification signed and witnessed this 19th day of November A. D. 1908.

JEREMIAH JOSEPH HOURIHAN.

Witnesses:

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