

No. 762,828.

PATENTED JUNE 14, 1904.

J. A. LINN.
NON-REFILLABLE BOTTLE.
APPLICATION FILED AUG. 25, 1903.

NO MODEL.

Fig. 1.

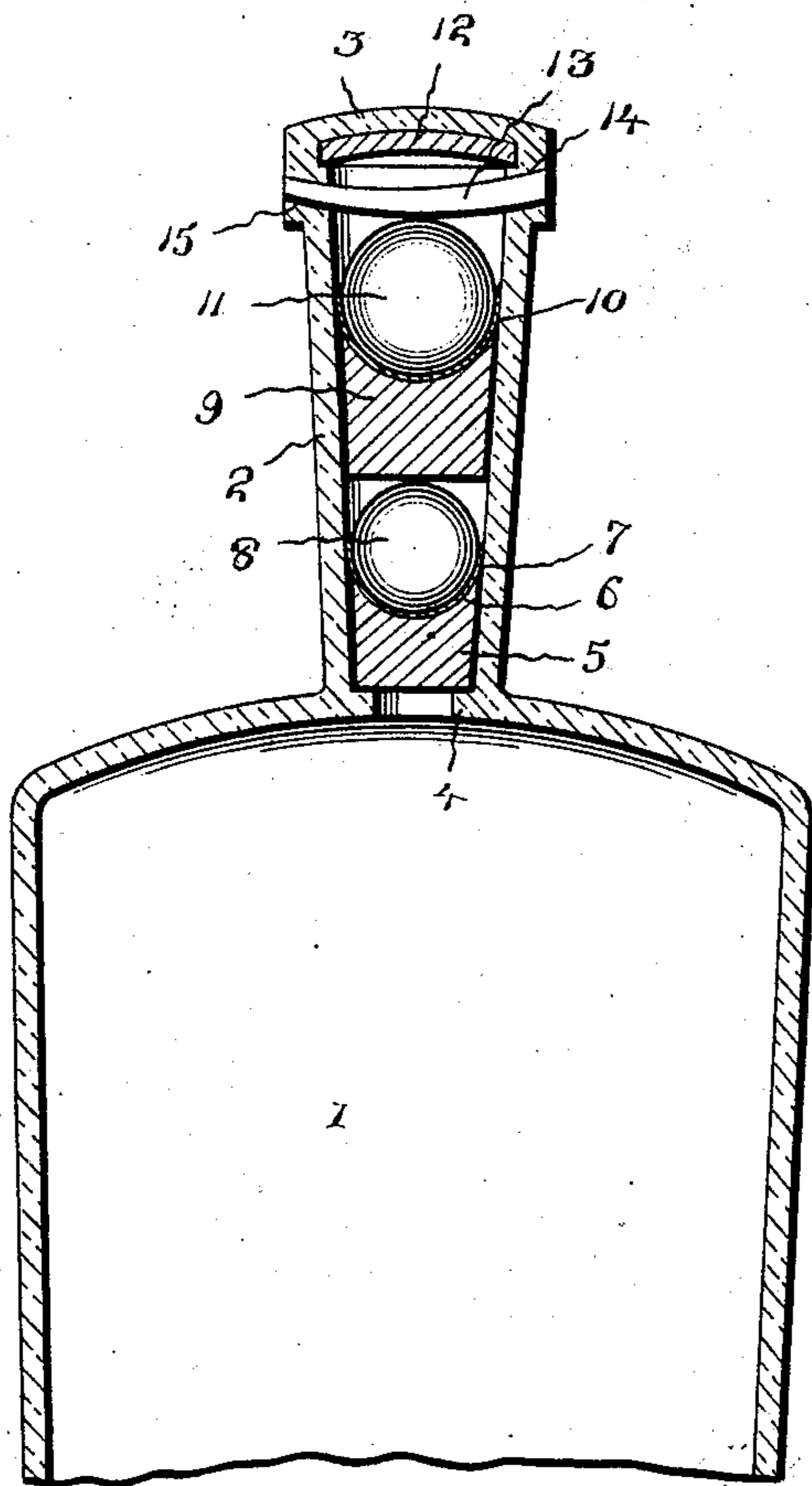
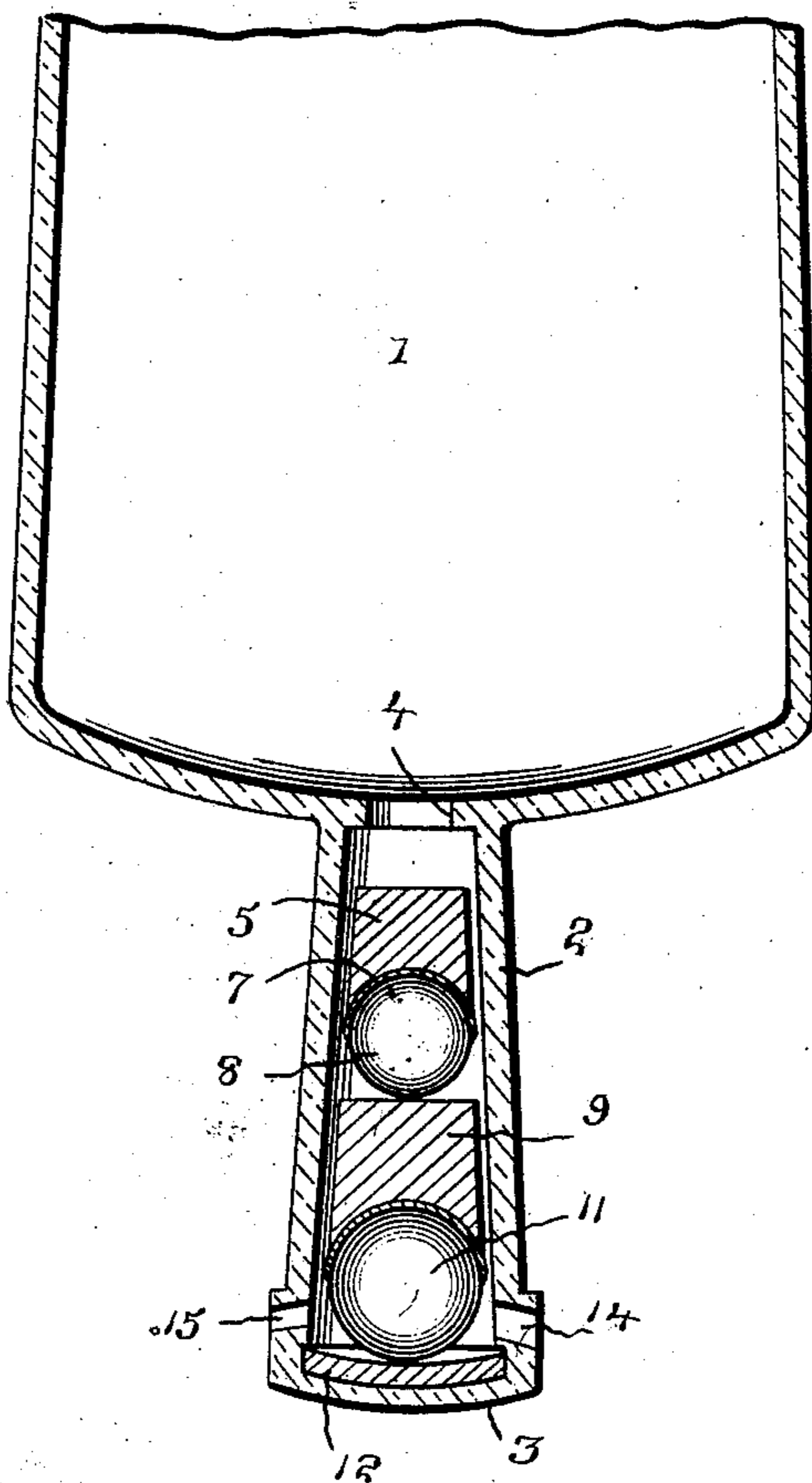


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN AUGUST LINN, OF PAGOSA SPRINGS, COLORADO, ASSIGNOR OF ONE-FOURTH TO GEORGE E. KINGSLEY, OF PAGOSA SPRINGS, COLORADO.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 762,828, dated June 14, 1904.

Application filed August 25, 1903. Serial No. 170,718. (No model.)

To all whom it may concern:

Be it known that I, JOHN AUGUST LINN, a citizen of the United States, residing at Pagosa Springs, in the county of Archuleta and State of Colorado, have invented a certain new and useful Non-Refillable Bottle, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to bottles, the object in view being to provide a bottle or similar-shaped receptacle equipped with one or more devices which will allow the liquid contents of the bottle to be poured off, but which will prevent the refilling of the bottle after the same has once been emptied.

With the above general object in view the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a vertical section through a bottle constructed in accordance with the present invention. Fig. 2 is a similar view showing the bottle inverted and illustrating the method of extracting the liquid contents therefrom.

Like reference-numerals designate corresponding parts in both figures of the drawings.

Referring to the drawings, 1 designates the body of a bottle of any usual or preferred construction provided with a neck 2, which is closed at its upper or outer end by means of an arched cap 3, which by preference constitutes an integral portion of the neck of the bottle. At the junction of the neck with the bottle there is provided an annular shoulder or flange 4, which forms a seat for the lower extremity of a stopper 5, which may be of cork, rubber, or other material. The stopper 5 is provided in its upper end with a hemispherical recess 6, which is lined with a disk 7, preferably of soft rubber. This disk, which I term a "checking-disk," is secured in the recess 6 in any convenient manner, as by cementation, and the disk is of such size that its outer edge or periphery extends outward and flares beyond the outer surface of the stopper, so as to remain in contact with the inner surface of the bottle-neck at all times except when

liquid is passing outward through the neck, at which time the flexible annular lip or outer edge of the checking-disk will yield in the nature of a packing-disk or check-valve, allowing the liquid to pass toward the outer end of the neck, but preventing liquid from passing through the neck into the bottle proper.

Seated in the pocket or recess 6 and resting in contact with the checking-disk 7 is a spherical weight or ball 8, which serves to hold the stopper in place when the bottle is in an upright position, as shown in Fig. 1. Arranged above or beyond the ball 8 is another stopper, 9, similar in all respects to the stopper 5, but larger, to correspond with the size of the neck at that point. It may here be noted that the neck 2 is preferably made tapering, gradually increasing in size from its inner toward its outer end, so that when the bottle is inverted and the stoppers or balls gravitate toward the outer end of the neck space will be left around the stopper and balls for the liquid to pass by. The stopper 9, like the stopper 5, is provided with a recess in its outer end and lined with a checking-disk 10, the outer edges of which flare beyond the outer surface of the stopper and lie in contact with the inner surface of the bottle-neck, the action thereof being the same as in the case of the checking-disk 7, hereinabove described. A second spherical weight or ball 11 is seated in the rubber-lined recess of the second stopper 9 and serves to hold said stopper tightly in place in the bottle-neck and against or in close proximity to the first-described ball 8, as shown in Fig. 1.

Within the cap 3 is arranged a cushion 12, of cork, rubber, or other suitable material, against which the outer ball 11 is adapted to rest when the bottle is inverted, as shown in Fig. 2. Arranged just beyond the outer ball 11 is a segmental taper key 13. This key is curved in the arc of a circle and gradually tapers from one end to the other. The key 13 is inserted through oppositely-arranged openings 14 and 15 at diametrically opposite points in the cap 3, as shown in Figs. 1 and 2, with the convex edge of the key inward, so that it bears against the ball 11. This key is

preferably made of hard rubber and is therefore resilient, so that it bears with a yielding pressure against the ball 11 and holds said ball in engagement with the stopper 9.

5 In order to pour liquid from the bottle, the key 13 is removed. The bottle is then inverted, as shown in Fig. 2, whereupon the stoppers and balls gravitate in the manner shown, allowing the liquid to pass around the
10 stoppers and balls, past the edges of the flexible checking-disks, and outward through the openings 14 and 15 in the cap or bottle-neck. Should any attempt be made to force liquid into the bottle, the flexible annular lips of the
15 checking-disks will close the neck effectually and prevent such attempt. The bottle cannot, therefore, be filled with spurious or adulterated liquid after the original contents thereof have once been poured off.

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

1. A bottle provided with a neck and having an internal shoulder, in combination with a stopper movable in the neck and adapted to
25 seat itself against said shoulder, said stopper having a recess in its upper portion, a checking-disk in said recess having a flexible annular edge which lies in contact with the inner surface of the neck, a spherical weight or
30 ball bearing against said disk, and means for limiting the movement of the stopper and ball toward the outer end of the neck.

2. A bottle provided with a tapering neck gradually increasing in size toward its outer
35 end, a stopper movable lengthwise within the neck and provided at its outer end with a hemispherical recess, a checking-disk mounted in said recess and having its outer edge adapted to project beyond the stopper and lie in yield-
40 ing contact with the inner surface of the neck, a ball-shaped weight seated in said recess, and means for limiting the movement of the ball and stopper toward the outer end of the neck.

3. A bottle provided with a tapering neck
45 increasing gradually in size toward its outer

end in combination with a stopper movable within the neck and provided with a hemispherical recess in its outer end, a checking-disk mounted in said recess and having a flexible outer edge which projects beyond the
50 stopper and lies in yielding contact with the inner surface of the neck, a movable weight adapted to act against the outer end of the stopper, and means for limiting the movement of said stopper toward the outer end of the
55 neck.

4. A bottle comprising a tapering neck increasing gradually in size toward its outer end, a stopper movable lengthwise within the neck and provided with a recess in its outer end, a
60 ball mounted in said recess, and a taper key removably fitted in the larger end portion of the neck and serving to hold the ball and stopper in place in the neck, substantially as described.

5. A bottle provided with a tapering neck
65 gradually increasing in size toward its outer end, in combination with a stopper movable lengthwise within the neck and provided with a recess in its outer end, a ball seated in said recess, a cushion arranged in the outer end
70 portion of the neck, and a taper key removably inserted transversely through the neck and interposed between the ball and cushion.

6. A bottle provided with a tapering neck gradually increasing in size toward its outer
75 end, in combination with a stopper movable lengthwise within the neck and provided with a recess in its outer end, a ball seated in said recess, and a segmental tapered key composed of spring material and removably inserted
80 transversely through the neck, said key being adapted to bear with a yielding pressure against the ball, substantially as and for the purpose described.

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

JOHN AUGUST LINN.

Witnesses:

JNO. M. LAUGHLIN,
JAMES S. HATCHER.