

G. R. COULS.
BOTTLE.

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1,053,905.

Patented Feb. 18, 1913.

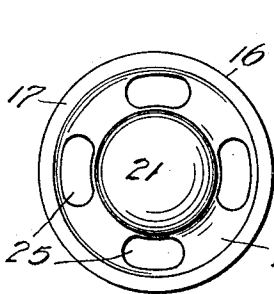
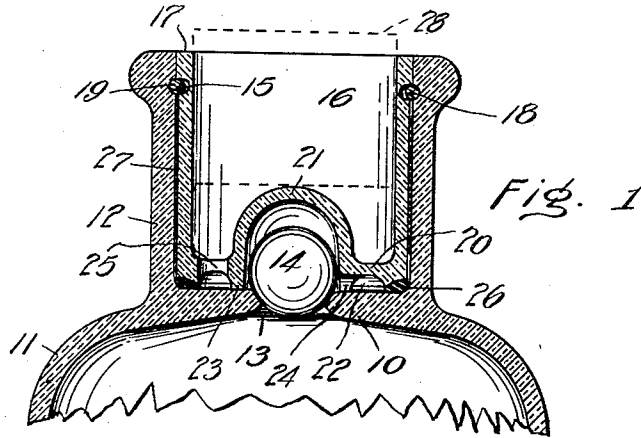


Fig. 2

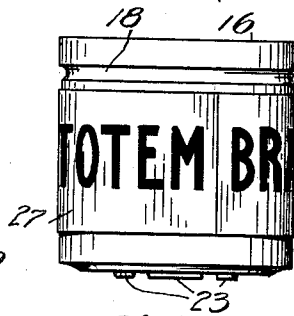


Fig. 4

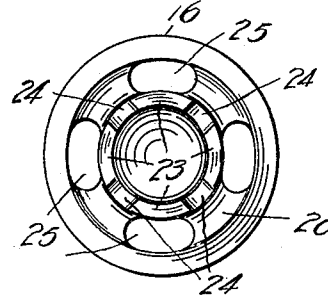


Fig. 3

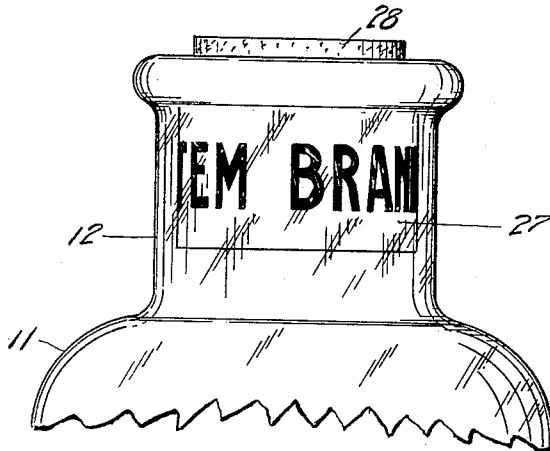


Fig. 5

WITNESSES:

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BOTTLE.

1,053,905.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE R. COULS, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

This invention relates to bottles and, more especially, to containers for liquids of a proprietary nature.

The principal object of the invention is the provision of improved devices which will permit the contents of a bottle to be poured out at a single operation, or at intervals; but will prevent the refilling of the same, a further object being to produce improved means for marking the bottle by utilizing a packing material which is employed in conjunction with the bottle stopper devices, so that a name, legend, or other characteristic marks may be displayed through the bottle neck.

With these ends in view, the invention consists in the novel construction, adaptation and combination of parts as will be hereinafter described and claimed.

In the drawings, where similar reference characters designate corresponding parts throughout, Figure 1 is a vertical section of a portion of a bottle embodying my invention; Fig. 2 is a top plan view of the insertible mouth member, shown detached; Fig. 3 is an underside plan view of Fig. 2; Fig. 4 is a side elevation of the member which is illustrated in the two preceding views and including the packing sheet or wrapper therefor; and Fig. 5 is a side elevation of a portion of the bottle to illustrate the advertising features of the wrapper upon the mouth member when utilized with a glass-bottle.

According to my invention, there is provided a centrally apertured horizontal partition 10 at, or in proximity to, the juncture of the bottle body 11 with its neck 12, formed to furnish a valve seat for a spherical valve 14 and wherein the latter is seated by gravity when the bottle is in an upright position, as shown in Fig. 1. Above the partition, the opening within said neck is formed cylindrical, or slightly flaring, and adjacent to the top thereof is a circumferential groove 15. Inserted in such opening is a substantially cylindrical member 16 having an annular wall 17 which is provided with a peripheral groove 18 for the

reception of a wire 19. Said wire is introduced into the groove 18 prior to the insertion of the member 16 into the bottle-neck and, when the wire is presented in the plane of the neck-groove 15, the resiliency of the wire will cause the wire to be protruded into the neck-groove and thereby serve to lock the member 16 in its place within said neck opening.

Integral with its annular wall, the member 16 is provided with a partition 20 having its central portion formed with an imperforate hollow dome 21. The internal diameter of the dome is greater than that of the referred to ball-valve 14 and of a height so that when the bottle is inverted, the valve will have sufficient movement from its seat to afford egress from the aperture 13 for the pouring out of the liquid contents of the bottle. The horizontal web of the partition 20 which is intermediate the dome and the wall 17 is located at a distance above the lower edge of the latter to afford a circular cavity 22.

Coextensive with the dome portion of the partition 20 are protuberant elements 23 extending downwardly and of depths to have their extremities terminate in juxtaposition with the top of the partition 10 when the member 16 is in operative condition. Said elements are spaced apart to provide passage ways 24 therebetween and establish communicative connection between the aforesaid cavity 22 and the chamber within said dome. In the web of partition 20 is a plurality of apertures 25 which are respectively located in radial planes projected medially with respect to the various elements 23. The length of each of these apertures is equal to, or less than, the corresponding measurement of the adjacent elements. By thus arranging the apertures 25 out of radial alinement with the passages 24, the outlets for the bottle are caused to be circuitous, and the insertion of an instrument from the outside to tamper with the ball-valve is obviated and thus renders it impractical to raise the valve from its seat for the refilling of the bottle.

26 designates a gasket of rubber, or an equivalent, which is interposed between the bottle partition 10 and the member 16 exteriorly of the cavity 22. Subjacent to the groove 18 the member 16 is made of less diameter than the opening of the bottle-neck to accommodate a sheet 27 of packing mate-

rial therebetween. This sheet is, by preference, ancillary to the gasket 26 in preventing any leakage about the member 16, though it can be used alone, if desired. Said sheet may have printed matter upon its outer surface as illustrated in Fig. 4 and thus furnish a conspicuous advertising medium discernible through the neck of a glass-bottle.

28 represents a stopper of cork, or an equivalent, which may be employed to close the mouth of the member 16 to prevent the accidental outflow of the bottle's contents should it be upset in transit, as well as for preventing the ingress of dirt.

The operation of the invention will, it is thought, be understood without further explanation.

What I claim as my invention, is:

In a device of the class described, a bottle neck having a transverse partition at its base provided with a tapered central aper-

ture, a ball closing said aperture, a substantially cylindrical member inserted in said neck and having a perforated bottom wall, a dome in said bottom wall of the cylindrical member overlying the tapered aperture in the transverse partition of the neck to hold the ball in position, depending members on the bottom face of the bottom wall of said cylindrical member for spacing its bottom from the transverse partition of the neck, said depending members being provided with passages communicating with the inner part of the dome and with the perforations in the bottom wall of the cylindrical member through the space between said bottom wall and the transverse partition of the neck, and means for securing the cylindrical member in said neck.

GEORGE R. COULS.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."