Sept. 3, 1963 D. A. SEAVER 3,102,650

ADJUSTABLE PERFUME BOTTLE CONTAINER

Filed Jan. 16, 1961

Fig. 1

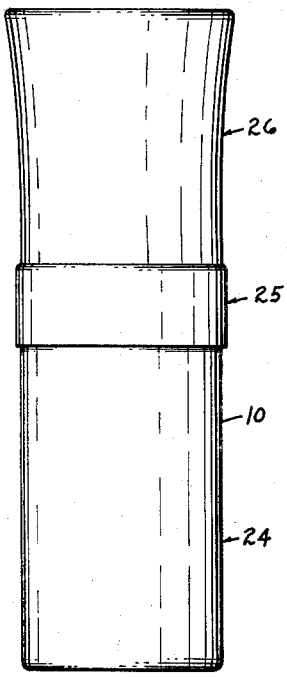


Fig. 3

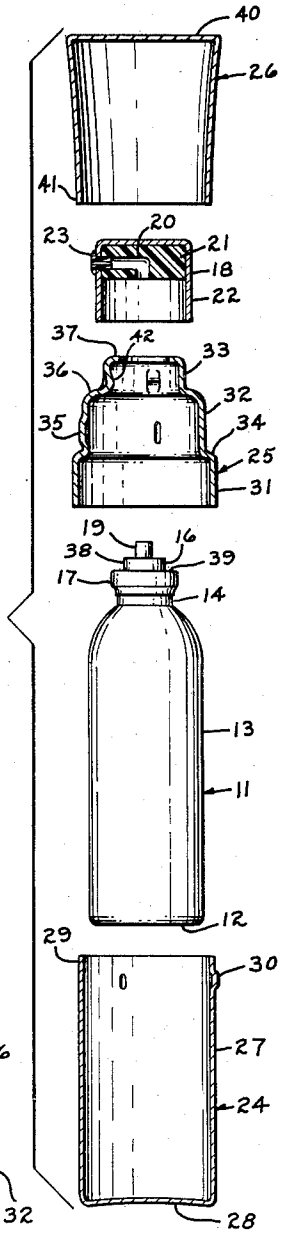


Fig. 2

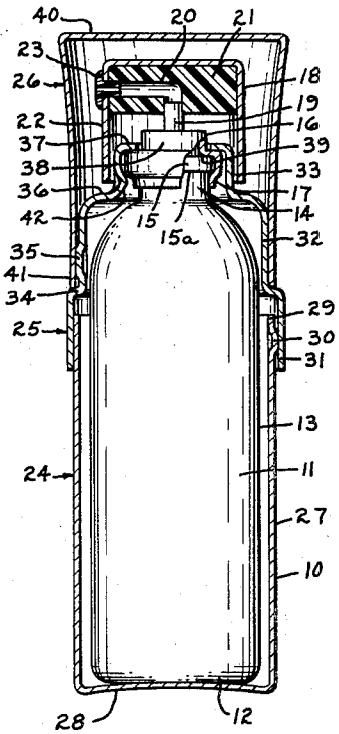


Fig. 4

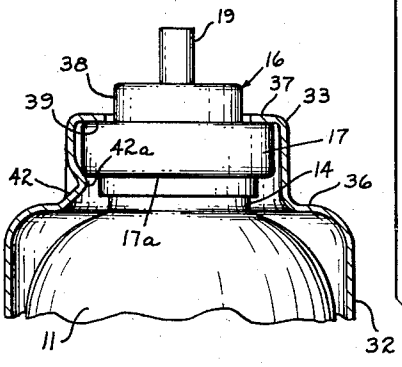
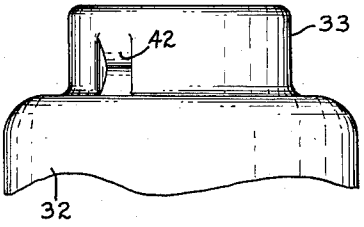


Fig. 5



INVENTOR
Donald A. Seaver
BY
N. F. Johnston
ATTORNEY

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ADJUSTABLE PERFUME BOTTLE CONTAINER

Donald A. Seaver, West Cheshire, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut

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This invention relates to a protective casing or container for glass bottles or similar receptacles of frangible material such as might be used for storing or conveying perfume.

In the manufacture of glass bottles or containers, it is well known that a considerable dimensional tolerance has to be permitted because of the uncontrollable character of molded glass.

One of the objects of my invention is to provide a protective casing for a glass container that can readily adapt itself to the variable over-all dimensions without placing any undue strain upon any portion of said glass container.

Another object is to provide a package consisting of a bottle and an ornamental or decorative casing that will protect the bottle from damage and which can be manufactured and assembled with the bottle in a simple and economical manner.

Other objects and advantages of my invention will be apparent from the following description and the accompanying drawing, in which:

FIG. 1 is a front elevation of the bottle container embodying my invention;

FIG. 2 is a longitudinal sectional view of the same;

FIG. 3 is an exploded view showing the parts in position to be assembled;

FIG. 4 is an enlarged sectional view of the upper end of the holder shell and bottle top; and,

FIG. 5 is an enlarged front elevation of the upper portion of the holder shell.

Referring now to the drawing, the numeral **10** designates generally a protective casing in which is confined a glass bottle **11**. The bottle **11** may contain a pressurized fluid, such as perfume, and consists of a base **12**, an elongated body **13** and a neck **14** that terminates in an enlargement **15**. A valve member **16** is attached to the bottle by a spinning operation that turns the skirt portion **17** of the valve under the lower surface **15***a* of the enlargement **15** of the bottle neck, thereby producing a shoulder **17***a* adjacent the bottom edge of the skirt portion **17**. A dispensing nozzle **18** is attached to the valve stem **19** by pushing the stem **19** into the passageway **20** of the nozzle core **21**. An inverted cupped shell **22**, which may be of the same material as the casing **10**, surrounds the core **21** and is provided with an atomizing tip **23** which is connected to the passageway **20**.

The casing **10** is made up of three parts: a tubular body shell **24**, a holder shell **25** and a cover cap **26**. The body shell **24** has an upstanding cylindrical wall **27** and a closed base end **28** which is bowed slightly inwardly. The open upper end **29** of the body shell **24** has three outwardly formed hollow friction nibs **30** over which the holder shell **25** has a tight telescopic fit.

The holder shell **25** is formed with three different sized diameters: a lower larger portion **31**, an intermediate portion **32** and a top smaller portion **33**. The lower portion **31** which is the largest in diameter, is dimensioned so as to slip over the upper end **29** of the body shell **24** and firmly engage the nibs **30**. The intermediate portion **32** which is slightly smaller in diameter than the lower section **31**, is joined to said lower portion by a shoulder **34**. The intermediate portion **32** is formed with three outwardly projecting friction nibs **35** adapted to be engaged by the cover cap **26** with a freely removable frictional

slip fit. The top smaller portion **33** is joined to the intermediate portion **32** by shoulder **36** and has an interior diameter of right size to receive the enlarged portion of the skirt **17** of the valve **16**. The upper end of the top smaller portion **33** has an inturned flange **37** that fits around the reduced section **38** of said valve **16** and rests upon the ledge **39** at the juncture of the skirt **17** and reduced section **38**, and determines the distance that the larger portion **31** fits over this casing body **27**.

The cover cap **26** has a closed upper end **40** and tapering sidewalls that terminate in an open end **41**. The open end **41** is dimensioned to slip over the intermediate portion **32** of the holder shell **25** and frictionally engage the nibs **35** until the open end **41** abuts against the shoulder **34** as a stop. The size of the intermediate portion **32** with its nibs **35** is such that the size of the open end of the cover cap **26** can be constructed so that it will be substantially in flush alignment with the body shell **24** for the sake of appearance (see FIG. 1).

When the container **10** and the bottle **11** are to be assembled, the bottle **11** with the attached valve **16**, but without the dispensing nozzle **18**, is inserted base-end first into the body shell **24**. The holder shell **25** is then slipped down over the neck **14** and adjacent body **13** of the bottle until the lower larger portion **31** of the holder shell is telescopically fitted over the upper end **29** of the body shell **24** and engages the nibs **30**. As the holder shell **25** is telescoped over the body shell **24**, the top smaller portion **33** is guided over the valve **16** until the inturned flange **37** rests on the valve ledge **39** as a stop. In this position, it is clear that the bottle **11** is firmly held in place between the inturned flange **37** of the holder shell **25** and the base end **28** of the body shell **24**. The holder shell **25** and the body shell **24** are frictionally held together against accidental relative movement by the nibs **30**, but it should be noted that the lower portion **31** of the holder shell extends substantially below the nibs **30**, and the open end **29** of the body shell **24** is spaced a noticeable distance below the shoulder **34** of the holder shell **25**. This allows for considerable adjustment of the over-all length of the container to accommodate the normal manufacturing tolerance of glass bottles which is quite large.

After the bottle **11**, the body shell **24** and the holder shell **25** have been assembled, the dispensing nozzle **18** is attached to the valve stem **19** by aligning said stem and passageway **20** of the core **21** and pushing the parts together. The friction fit so produced is strong enough to hold the parts together and the outer cupped shell **22** fits loosely around the top smaller portion **33** of the holder shell **25**, thereby giving a finished over-all appearance to the assembled container when the cover is removed. The cover cap **26** telescopes over the intermediate portion **32** of the holder shell **25** until the lower open end **41** is stopped by the shoulder **34**.

In practice, it has been found that the variations in bottle length sizes is such that sometimes the holder shell **25** can be telescoped its full distance upon the body shell **24**, i.e., until the open end of said body shell abuts the lower shoulder **34** of said holder shell and without the base of the bottle touching the container shell base end **28**.

To meet the above contingencies, I propose to construct the top smaller section **33** of the holder shell **25** so that it will, by itself, hold the bottle in a secure position. For this purpose, a plurality of circumferentially spaced ribs **42** are formed inwardly of the top smaller section **33** and are adapted to engage the valve skirt **17** with sufficient gripping force to hold the bottle neck securely within the holder shell smaller portion without danger of being pushed thereout due to the forces imparted to the valve **16** when operating the dispensing nozzle **18**. Specifically, as shown in FIGS. 4 and 5, the ribs **42** are partially

sheared from the sidewalls of the top smaller portion **33** and formed into V-shaped straps arranged in a vertical position, the construction being such as to have some degree of resiliency. The ribs are preferably positioned on the top smaller portion so that the apices **42***a* of the ribs will slightly engage by a snap-action against the round surface where the valve skirt **17** joins the shoulder **17***a*.

In making the assembly of the casing to the bottle wherein the length of the latter is not sufficient to abut the base of the body shell **24** and wherein ribs are employed on the holder shell **25** to grip the valve skirt **17**, it will be necessary to assemble the bottle neck first with the holder shell **25** and then assemble the holder shell **25** and the bottle **11** as a unit into the body shell **24**.

One of the requisites of my casing is that the frictional fit between the lower portion **31** of the holder shell **25** and the body friction nibs **30** be relatively tight as compared to the frictional fit between the cover cap **26** and the friction nibs **35** on the holder shell intermediate portion **32**. This is to insure that the cover cap **26** can be readily removed from the casing without disturbing the holder shell **25**.

It will thus be seen that I have provided an adjustable container for glass bottles or the like, that has a minimum number of parts; that is extremely simple to assemble; and that has a smooth over-all appearance, as well as being economical to manufacture.

What I claim is:

A package comprising a bottle normally sealed at its mouth and having an upwardly facing ledge around the bottle mouth, a protective casing for said bottle comprising a hollow body shell surrounding the bottle with the bottle resting on the bottom wall of said shell, a holder shell having a larger portion and a smaller portion with a shoulder therebetween, the larger portion having a telescopic fit to the upper end of the body shell and the smaller portion having an inturned flange at its upper end engaging said upwardly facing ledge on the bottle as a stop, said body shell having outwardly formed nibs frictionally engaging against the inner surface of said holder shell, said holder shell extending below said nibs when the two shells are assembled, the telescopic fit being of sufficient length and sufficiently tight to retain the holder shell and body shell together in different endwise adjusted positions so as to accommodate different lengths of bottles, and a cover cap frictionally fitted over the smaller portion and abutted against said shoulder as a stop.

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