Sept. 22, 1959 N. B. LERNER 2,905,351

SNAP-ON BASE FOR A BOTTLE, JAR, GLASS, OR THE LIKE

Filed Feb. 27, 1956

Fig. 1

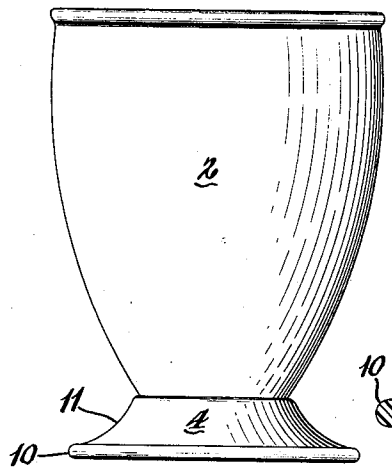


Fig. 2

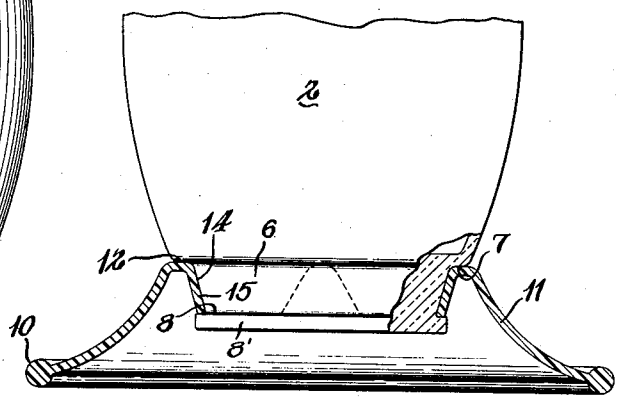


Fig. 3

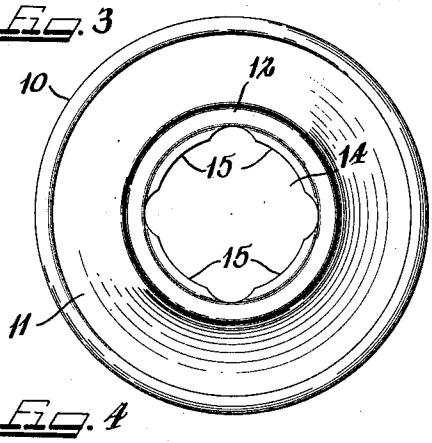


Fig. 6

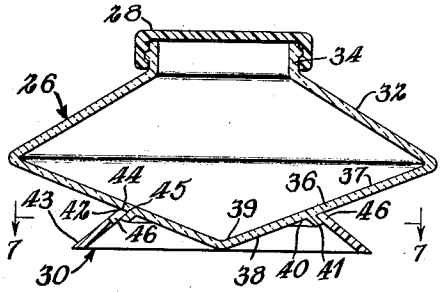


Fig. 4

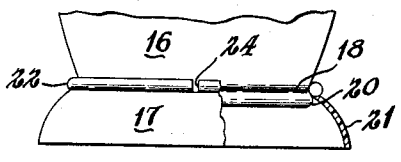


Fig. 7

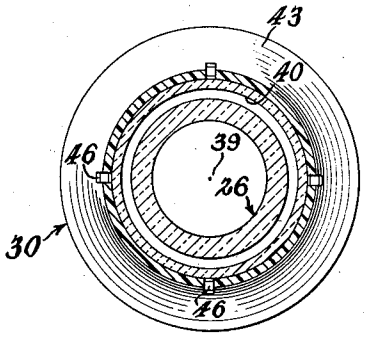
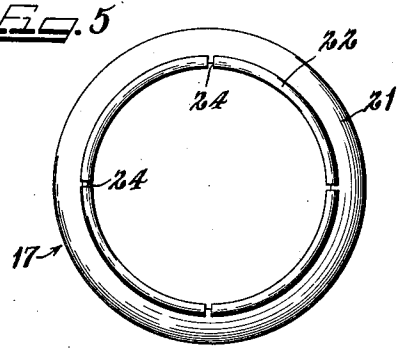


Fig. 5



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United States Patent Office 2,905,351 Patented Sept. 22, 1959

2,905,351

SNAP-ON BASE FOR A BOTTLE, JAR, GLASS, OR THE LIKE

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Application February 27, 1956, Serial No. 567,822

2 Claims. (Cl. 215—100)

This invention relates to a snap-on base for a bottle, jar, glass or the like, and to receptacles of this type designed for use with such a base.

It is one of the objects of this invention to provide a base for bottles, jars, glasses or the like which may be readily applied to or snapped onto the bottoms of such receptacles. In the case of drinking glasses, a set of differently colored or decorated snap-on bases applied thereto give an interesting variety in appearance to the glasses and enable the users thereof readily to distinguish their own glasses from those of others. Also, snap-on bases are useful where, because of the shape of the receptacle or because of cost considerations, it is desirable to fabricate the body and base of the receptacle separately, perhaps out of different materials. According to the invention, these objectives are accomplished simply and inexpensively by providing molded plastic bases for the receptacle bodies which can be assembled by the simple expedient of snapping the bases onto the receptacle bottoms.

It is a further object of this invention to provide a bottle, jar, glass, or other receptacle with means for interlocking with a base of the type above described.

I have invented an ink bottle body having a bottom internal wall which tapers gradually to a point at the lower extremity of the body to provide a small well portion at the bottom of the bottle interior into which small remaining amounts of ink may collect to a depth sufficient to fill an ordinary fountain pen. It has been found desirable in the interest of having uniform wall thickness to taper the bottom outer surface of the bottle body so that it follows the outline of the bottle interior. Because of the pointed bottom, the body cannot support itself upright. It is accordingly another object of the invention to provide an inexpensive, easy to apply base for supporting in an upright position a receptacle having a pointed or narrow bottom which prevents the receptacle from supporting itself in an upright position.

Other objects, advantages and features of the invention will become apparent upon making reference to the specification to follow, taken in conjunction with the drawings showing several embodiments of the invention.

In the drawings:

Fig. 1 is an elevation of a drinking glass or goblet having a snap-on base constructed in accordance with the invention;

Fig. 2 is an enlarged fragmentary view of the goblet in Fig. 1 with the snap-on base in section;

Fig. 3 is a plan view of the snap-on base on Figs. 1 and 2;

Fig. 4 is a fragmentary side view, partially in section, of a differently designed drinking glass and modified snap-on base therefor;

Fig. 5 is a plan view of the snap-on base of Fig. 4;

Fig. 6 is a vertical section through an ink bottle consituting one aspect of the invention, and a snap-on base therefor constructed in accordance with the invention; and

Fig. 7 is a horizontal section through the ink bottle assembly of Fig. 6, taken along section line 7—7 in the direction of the arrows.

In Figs. 1 through 3 a goblet 2 having a snap-on base 4 is shown. The goblet 2 may be made of glass and has formed near the outer bottom surface thereof a peripherally extending recess or channel 6 with tapered sides and providing base-locking shoulders 7 and 8. The channel forms a bottom peripherally projecting rim 8' at the bottom of the goblet.

The snap-on base may be made of any of a number of materials, preferably a molded plastic material, such as polystyrene. The base as shown is a thin-walled, molded plastic body having a beaded bottom rim 10 from which extends a concave, annular, upstanding side wall 11 which terminates in a horizontal, flat annular shoulder 12. The shoulder 12 surrounds or defines the mouth of a central opening 14 in the base defined by dependent, resilient flaps 15 which angle downwardly and inwardly. The flaps have a length approximately equal to the slant length of the inner defining wall of the goblet channel 6, and the tapered opening defined thereby is generally somewhat smaller than the neck portion of the goblet which defines the channel 6. However, the distance across the mouth or top of the base opening 14 is slightly greater than the width of the projecting rim 8' at the bottom of the goblet to guide the goblet bottom easily into the base opening.

To apply the base 4 to the goblet 2, the rim 8' of the goblet is inserted into the slightly larger mouth of the base opening and pushed downwardly until the rim 8' at the goblet bottom snaps under the bottoms of the flaps 15. The flaps then lock in position by their own resiliency between the goblet shoulders 7—8 and latch over the shoulder 8. The resiliency of the flaps 15 will securely hold the base 4 onto the bottom of the goblet 2.

Refer now to the modified goblet 16 and snap-on base 17 shown in Figs. 4 and 5. In this embodiment, an annular pocket or recess 18 is formed by the projecting beaded rim 20 at the bottom of the goblet. The base 17, whch may be made of a similar material to that described for the base 4 in Fig. 1, has a convex or inverted dish-shaped body 21 which terminates at the top thereof in a beaded rim 22. The rim 22 may be slotted at four points therearound approximately 90° apart to form resilient, expansible sections between the slots 24. The unexpanded inner diameter of the beaded rim 22 is made somewhat smaller than the maximum diameter of the beaded rim 20 of the goblet 16. Due to the rounded or curved upper and inner surfaces of the slotted beaded rim 22 at the top of the base 17, insertion of the bottom of the goblet into the top of the opening in the base 17 will cam or expand the resilient section of the base rim outwardly and the latter will snap into place within the shallow recess 18 formed immediately above the goblet rim 20.

Refer now to the embodiment shown in Figs. 6 and 7 showing an ink bottle assembly including a bottle body 26, made preferably of glass, cap 28, and a plastic snap-on base 30. The bottle body illustrated is pointedly shaped with an upper frusto-conical portion 32 terminating in a cylindrical, externally threaded neck 34. The cap 28 threads around the neck. The bottom portion 36 of the bottle body is shaped like an inverted cone and joins at its upper end the wide end of the frusto-conical upper portion 32 of the bottle body. The bottle body is preferably a molded article with walls of substantially even thickness so that the bottom outer surface 38 of the bottle inclines downwardly and inwardly toward the center of the bottle body as does the bottom inner surface 37, forming a pointed bottom on the bottle body. The tapered or inclined bottom inner surface of the

bottle forms a filling-well portion 39 in the bottom of the bottle body into which even small amounts of ink remaining in the bottle collect so that practically all of the ink in the bottle may be used.

Extending outwardly and downwardly from the outer inclined surface of the bottle bottom is an annular projecting portion 40 whose outer edge 41 inclines inwardly and downwardly for reasons to be explained. An annular pocket or recess 42 is thereby provided between the upper inclined surface of the annular projecting portion 40 and the adjacent oppositely inclined wall of the bottle body.

Resiliently extending into the pocket 42 is the snap-on base 30, which may be made of a material similar to that out of which the bases 4 and 17 are made in the previously described embodiments. The base 30 has a frusto-conical, annular body 43. The upper edge or surface 44 of the base body 43 has a downwardly and inwardly inclined shape conforming in general to the conical external shape of the bottom portion of the bottle body 26. The annular nose or lip 45 at the upper end of the bottle base fits into the annular pocket or recess 42 of the bottle body. From what has been stated above, it is apparent that the normal or unexpanded minimum inner diameter of the opening at the top of the snap-on base 30 is made somewhat less than the minimum diameter of the external annular pocket or recess 42 in the bottle body.

The top of the snap-on base is slotted at several points 46 to provide resilient flap sections between the slots. To apply the snap-on base 30 to the bottle body, the pointed bottom portion of the latter is extended into the opening of the snap-on base 30, whereupon the inclined upper surface 44 of the base and the similarly inclined bottom surface 41 of the annular projecting portion 40 of the bottle body make contact. Further movement of the bottle body toward the base will result in a camming out or outward flexure of the flexible upper portions of the snap-on base until the lip 45 of the base snaps over the projecting portion 40 and into the annular pocket 42 where the snap-on base is resiliently and securely held onto the bottom of the bottle body.

The various snap-on bases above described may be made of different colored materials increasing the variety and attractiveness of the receptacles with which they are used. Also, the snap-on bases of the invention make it possible to fabricate the body receptacles apart from the bases, while permitting quick and easy assembly of the bases on the receptacle bodies by snap action between the bases and the receptacle bodies.

Particularly in the embodiment shown in Figs. 6 and 7, it is apparent that it is within the purview of the broader aspects of the invention to omit the flexible flaps or sections on the snap-on base and instead from the annular projecting receptacle portions 40 of a resilient material so that the latter will flex inwardly when the bases are applied thereto.

It should be understood that numerous modifications may be made of the preferred embodiments of the invention above described without deviating from the broader aspects thereof.

I claim:

1. A bottle having a body provided with a bottom which inclines downwardly toward the central portions of said body and at the very bottom of said body forms a narrow receptacle portion which cannot support the body in an upright position, an annular projection at the bottom of said body and surrounding said receptacle portion, said projection extending downwardly and outwardly from said receptacle portion, and a base for supporting said body in an upright position, said base having an annular lip extending at a substantial angle to the horizontal and defining a top-opening for receiving the bottom of said bottle, said opening being somewhat smaller than the outer dimension of said projection, said lip being slotted at its upper end to provide resilient, flexible, flap sections between the slots, which flap sections when flexed outwardly clear the outer extremities of said annular projection, said flap sections resiliently gripping and interlocking with said annular projection and with the body adjacent said annular projection to hold said body in an upright position.

2. A bottle having a body provided with a bottom which inclines downwardly toward the central portions of said body and at the very bottom of said body forms a narrow receptacle portion which cannot support the body in an upright position, an annular projection at the bottom of said body and surrounding said receptacle portion, said projection extending downwardly and outwardly from said receptacle portion and terminating in a free edge spaced upwardly from the very bottom of said body, and a base for supporting said body in an upright position, said base having an annular lip extending at a substantial angle to the horizontal and defining a top-opening for receiving the bottom of said bottle, said opening being somewhat smaller than the outer dimension of said projection, said lip being slotted at its upper end to provide resilient, flexible, flap sections between the slots, which flap sections when flexed outwardly clear the outer extremities of said annular projection, said flap sections resiliently gripping and interlocking with said annular projection and with the body adjacent said annular projection to hold said body in an upright position.

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