Sept. 7, 1937. L. HOEN 2,092,455

BOTTLE COLLAR

Filed Oct. 26, 1936

Fig. 1.

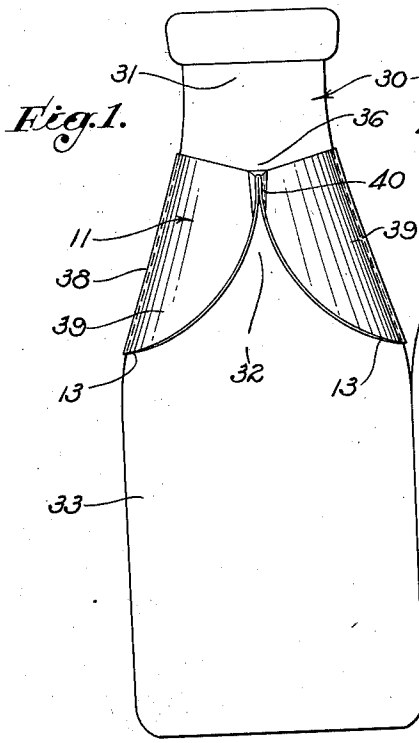


Fig. 2.

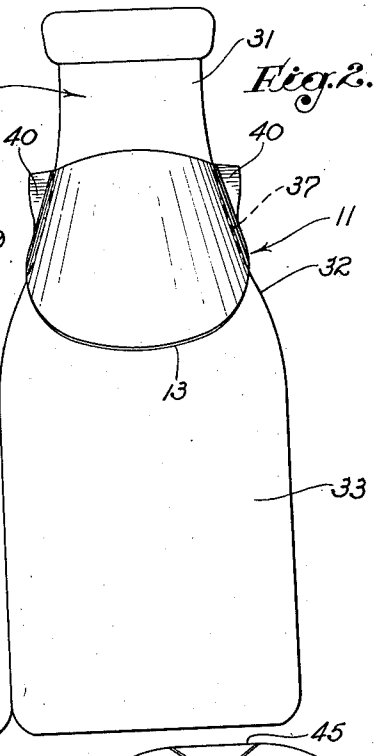


Fig. 3.

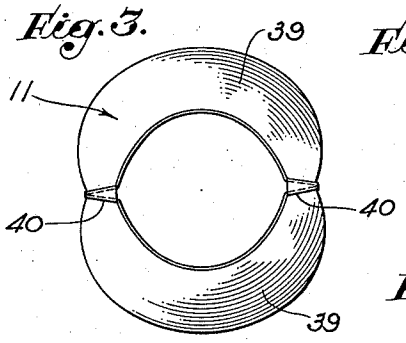


Fig. 5.

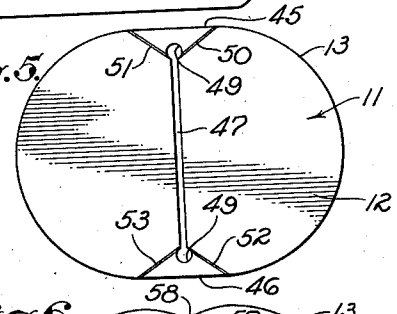


Fig. 6.

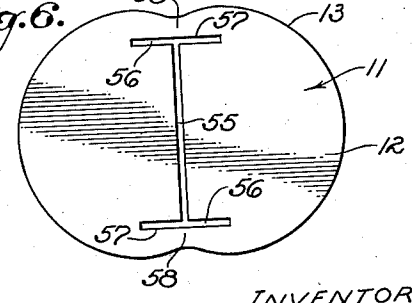
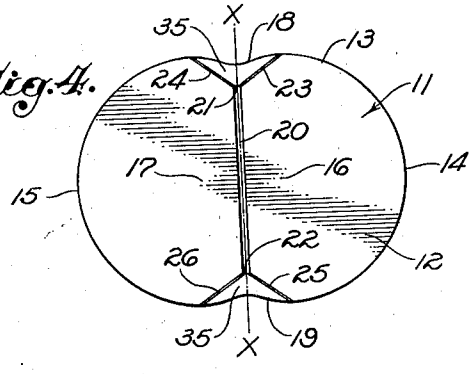


Fig. 4.



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BOTTLE COLLAR

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Application October 26, 1936, Serial No. 107,615

6 Claims. (Cl. 40—4)

My invention relates to bottle collars of the character adapted to be positioned over the neck of a bottle for decorative effect or for the purpose of carrying advertising matter or printed instructions for utilizing the contents of the bottle.

It is an object of the invention to provide such a bottle collar which may be easily and quickly positioned on the bottle without utilizing any form of auxiliary fastening means, and which will remain in a position that will not interfere with the normal handling of the bottle or the stacking or crating thereof.

It is another object of the invention to provide a bottle collar for use on bottles, such as milk bottles, which have a neck portion, an intermediate tapered portion, and an enlarged body portion, the collar being adapted to be positioned over the neck of the bottle and snugly fit the intermediate tapered portion so that no part of the collar projects laterally beyond the diameter of the body of the bottle and therefore does not interfere with stacking or crating of the bottle.

Another object of the invention resides in the provision of a bottle collar comprising a single sheet of flexible material, such as paper, having a suitably contoured marginal edge and having a transverse slot formed on a median plane thereof through which the neck of a bottle may be inserted, the spreading of the walls of the slot deforming the sheet so that the marginal edge thereof will conform to the shape of the bottle.

It is still another object of the invention to provide a bottle collar of the character described in the above paragraph having scored lines formed in the surface thereof extending divergently outward from each end of the median slot to the marginal edge of the sheet so that when the walls of the slot are spread by insertion of the bottle neck, the sheet will crease along the scored lines and the material between the scored lines will bend along the axis of the slot causing substantially the entire surface of the sheet and the entire marginal edge thereof, except the portions between the scored lines, to engage and conform to the contour of the bottle.

These and other objects and features of construction of my invention will be made apparent in the following specification read in connection with the accompanying drawing and the appended claims.

In the drawing:

Figs. 1 and 2 are utility views illustrating the manner in which my bottle collar is applied to the tapered portion of a bottle, the collar of Fig. 2 being rotated 90° relative to the collar of Fig. 1.

Fig. 3 is a top plan view of the collar shown in a distended position in which it will conform to the tapered portion of a bottle, such as is shown in Figs. 1 and 2.

Fig. 4 is a face view of the collar illustrated in Figs. 1, 2, and 3 before it has been distended to conform to the shape of the bottle.

Fig. 5 is a face view of an alternative form of collar, and

Fig. 6 is a face view of still another alternative form.

Referring first to the form of collar shown in Figs. 1 to 4, the collar generally designated by the numeral **11** comprises a flat sheet **12** of flexible material, such as paper, slightly elongated in form and having a suitably contoured marginal edge **13**. As shown, I prefer to contour the marginal edge **13** so that the opposite ends **14** and **15** are each formed to a radius respectively indicated at **16** and **17**, spaced on either side of the median lateral axis of the sheet, indicated by the line X—X. I prefer to narrow the sheet **12** at the lateral median plane by forming indentations **18** and **19** in the marginal edge **13** on opposite sides of the sheet **12**, these indentations being suitably formed by curving the marginal edge inwardly on a radius located on the axis X—X and tangential to the curvature of the end portions **14** and **15**.

Formed on the axis X—X is an elongated slot **20**, the opposite ends **21** and **22** of which terminate adjacent the marginal edge defined by the indentations **18** and **19**.

In the preferred form shown, I provide scored lines **23**, **24**, **25**, and **26** formed in one surface of the sheet **12**, the scored lines **23** and **24** extending divergently outward from the end **21** of the slot to the marginal edge **13** of the sheet on opposite sides of the indentation **18**, and the scored lines **25** and **26** extending divergently outward from the end **22** of the slot to the marginal edge **13** on opposite sides of the indentation **19**.

In installing the collar **11** on a bottle, such as the bottle **30** shown in Fig. 1 or 2, which has a neck portion **31**, an intermediate tapered portion **32**, and an enlarged body **33**, the neck portion of the bottle is inserted through the slot **20** causing the walls of the slot to be spread laterally. When this occurs, the material of the sheet **12** is forced to crease along the scored lines **23**, **24**, **25**, and **26**, and the material **35** between the respective pairs of scored lines is caused to bend along the axis

X—X. When the collar 11 is pushed downwardly on the neck 31 so that the walls of the slot 20 are stretched tightly around the upper small diameter end 36 of the tapered portion 32, the marginal edges 13 of the ends 14 and 15 of the collar will be deformed to the extent that these edges will closely engage and conform to the contour of a larger diameter of the tapered portion 32. Considering that the tapered portion 32 has a relatively straight taper, as indicated in Figs. 1 and 2, substantially the entire surface of the sheet 12 engages and closely conforms to the surface of the tapered portion, as indicated, except the portions of the material between the scored lines 23 and 24, and 25 and 26. These portions, having been creased along these scored lines and bent along the median plane of the sheet forming the axis of the slot 20, will form laterally projecting wings 40 on opposite sides of the tapered portion 32, substantially as indicated in Figs. 1 and 2. In practice, the tapered portion 32 of the bottle need not have a straight taper, such as is indicated; the collar being adapted to retain its position just as efficiently on a bottle having a bell-shaped contour 37, indicated in Fig. 2. When a bottle collar 11 is placed on a bottle having this shape, the central portion 38 of the oppositely disposed pendants 39, formed by the opposite sides of the sheet 12 when the collar is positioned on the bottle, may not engage and exactly conform to the bell-shaped surface 37. However, when the side walls of the slot 20 are stretched around a small diameter portion 36 of the bottle, substantially the entire marginal edge 13 of each of the pendants 39 will engage and conform to the shape of a larger diameter portion of the bell-shaped body.

In practice the length of the slot 20 is determined by the position which it is desired that the collar assume on the bottle. It will be clear that the spreading of the walls of the slot 20 causes the deformation of the material of the sheet 12 and the tighter the walls of the slot are stretched around the upper tapered portion of the bottle the more the material will tend to crease along the scored lines 23 and 24, and 25 and 26, which allows the surface of the sheet 12 to adapt itself more closely to the contour of the tapered portion 32.

The respective lengths of the oppositely disposed sides of the sheet forming the pendants 39 are such that with the collar installed, the marginal edges thereof do not project beyond the diameter of the enlarged body portion 33, as shown in Fig. 1. Likewise, as shown in Fig. 2, the laterally projecting wings 40 formed by the portions of the material between the scored lines are proportioned so that they do not project laterally beyond the diameter of the body 33. It will thus be seen that, as is indicated in Figs. 1 and 2, the collars 11 when installed on the bottles do not in any way interfere with the normal handling of the bottle by the neck thereof or prevent the body portions of the bottles from being stacked in side by side contact or crated.

Likewise, it will be seen that by the above described construction I have provided a bottle collar which may be cheaply made, conveniently carried or bundled in flat position without marring or wrinkling, and which can be quickly installed on the neck of a bottle under conditions where there is little or no light, it being only necessary to hold the flat sheet over the neck of the bottle and push it downwardly to insert the neck of the bottle through the median slot to spread the walls thereof to deform the collar to conform to the tapered portion of the bottle, as above described.

In Fig. 5 I show an alternative form of the collar 11, the marginal edge thereof having straight sides 45 and 46, and having a transverse elongated slot 47 terminating at opposite ends thereof in enlarged openings, such as round holes 49, disposed adjacent the sides 45 and 46 of the marginal edge. Scored lines 50 and 51, and 52 and 53 are provided in one surface of the sheet 12 extending divergently outward from the respective openings 49 to the adjacent sides 45 and 46 of the marginal edge 13.

The operation of installing this form of collar and the function thereof to deform and adapt itself to the contour of the bottle, when the walls of the slot 47 are spread are substantially the same as in the preferred form previously described.

With reference to Fig. 6, I show still another alternative form of collar 11 having a marginal edge 13 substantially identical with the preferred form shown in Fig. 4. In this form I prefer to provide an elongated slot 55 disposed in the transverse median plane of the sheet 12 and terminating at each end thereof in a shorter perpendicular slot 56. The slots 56 are provided to render the material between the outer walls 57 of the slots and the adjacent marginal edge more flexible and thus provide flexing portions 58, obviating the necessity for providing scored lines to promote creasing of the material when the neck of the bottle is inserted through the slot 55. When this form of collar is mounted on a bottle and pushed downwardly thereover until the walls of the slot 55 are stretched tightly therearound, the flexing portions 58 extend transversely with respect to the longitudinal axis of the bottle on opposite sides thereof, and substantially the entire surface and marginal edge of the sheet between the parallel planes of the perpendicular slots 56, will closely engage and conform to the contour of the tapered portion of the bottle.

It should be understood that I do not intend that my invention should be limited to the details of construction specified herein for the purpose of clearly illustrating the features thereof, but believe that the invention should be accorded its full range of equivalents, the scope of which should be interpreted by the appended claims.

I claim as my invention:

1. A bottle collar, comprising: a sheet of flexible material having a suitably contoured marginal edge; walls forming an elongated slot terminating at each end adjacent said marginal edge of said sheet and disposed on a median plane thereof; and scored lines extending divergently outward from each end of said slot to the adjacent marginal edge of said sheet, the material of said sheet creasing along said scored lines when a tapered cylindrical bottle is inserted through said slot whereby substantially the entire surface and the entire marginal edge of said sheet except the portions between said scored lines engage and conform to the taper of said bottle.

2. A bottle collar, comprising: a sheet of flexible material having a suitably contoured marginal edge; walls forming an elongated slot terminating at each end adjacent said marginal edge of said sheet and disposed on a median plane thereof; scored lines extending divergently outward from each end of said slot to the adjacent marginal edge of said sheet; and an indentation in said

marginal edge on each side of said sheet between said scored lines, said sheet creasing along said scored lines and the material between said scored lines bending along the axis of said slot when a bottle having a tapered cylindrical portion is inserted through said slot whereby substantially the entire surface of said sheet and the entire marginal edge of said sheet except the portions between said scored lines engage and conform to the taper of said bottle.

3. In a bottle collar, adapted to be placed on a bottle having a neck portion, an intermediate tapered portion and an enlarged diameter body portion, said collar comprising: an elongated sheet of flexible material having a suitably contoured marginal edge; walls forming an enlongated transverse slot therein disposed on the median plane thereof, said slot terminating at each end adjacent said marginal edge of said sheet; and two scored lines extending divergently outward from the ends of said slot to the adjacent marginal edge of said sheet, the material of said sheet creasing along said scored lines and the material between said scored lines bending along the axis of said slot when said walls thereof are spread by inserting said neck portion of said bottle therethrough to stretch said walls of said slot around a small diameter of said intermediate tapered portion whereby said spreading of said walls of said slot deforms said material of said sheet, causing substantially the entire marginal edge except the portions thereof between said scored lines to engage and conform to a larger diameter of said tapered portion.

4. A bottle collar, comprising: a sheet of flexible material having a suitably contoured marginal edge; walls forming an elongated slot in said sheet terminating at each end in enlarged openings adjacent said marginal edge of said sheet and disposed on a median plane thereof; and two scored lines extending divergently outward from each of said enlarged openings to the adjacent marginal edge of said sheet, the material of said sheet creasing along said scored lines and the material between said scored lines bending along the axis of said slot when a bottle having a tapered cylindrical portion is inserted through said slot whereby spreading of said walls of said slot deforms said sheet so that substantially the entire surface thereof except the portions between said scored lines engages and conforms to said tapered portion.

5. A bottle collar comprising, a sheet of flexible material having walls forming an elongated slot terminating at each end adjacent the marginal edge of said sheet, and scored lines extending divergently outward from an end of said slot to the adjacent marginal edge of said sheet, the material of said sheet creasing along said scored lines when a tapered cylindrical bottle is inserted through said slot whereby substantially the entire surface and the entire marginal edge of said sheet except the portions between said scored lines engage and conform to the taper of said bottle.

6. A bottle collar comprising, a sheet of flexible material having walls forming an elongated slot terminating at each end adjacent the marginal edge of said sheet, and means carried by said sheet to cause creasing of the sheet along predetermined divergent lines extending from an end of said slot to the adjacent marginal edge of said sheet whereby, when a tapered cylindrical bottle is inserted through said slot, substantially the entire surface and the entire marginal edge of said sheet except the creased portion engage and conform to the taper of said bottle.

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