Dec. 26, 1939. L. S. OLSEN 2,184,846

BOTTLE DISPLAY COLLAR

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Fig. 1.

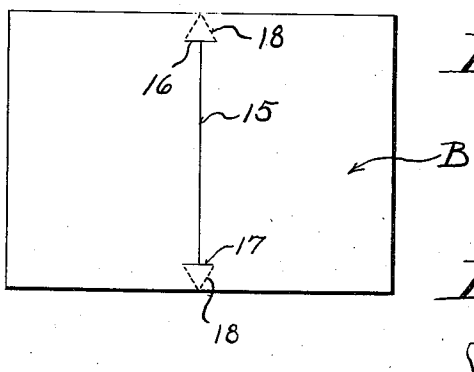


Fig. 6.

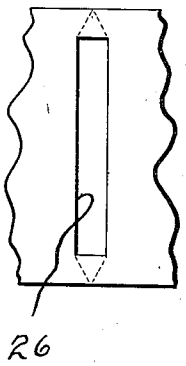


Fig. 7.

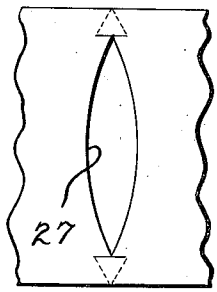


Fig. 2.

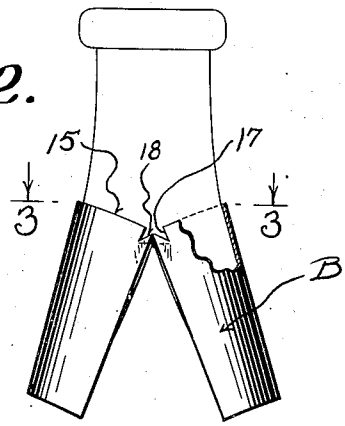


Fig. 8.

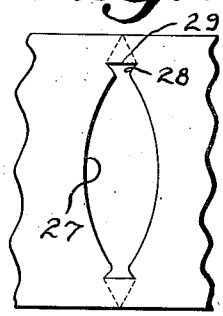
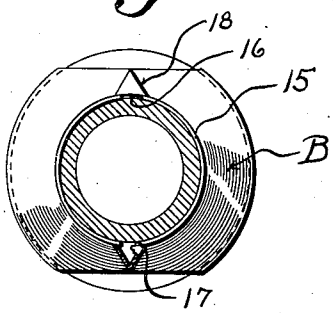


Fig. 3.



Inventor
L. S. Olsen
By
Attorneys

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Fig. 4.

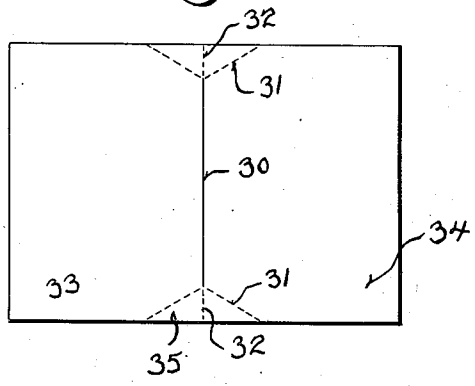


Fig. 5.

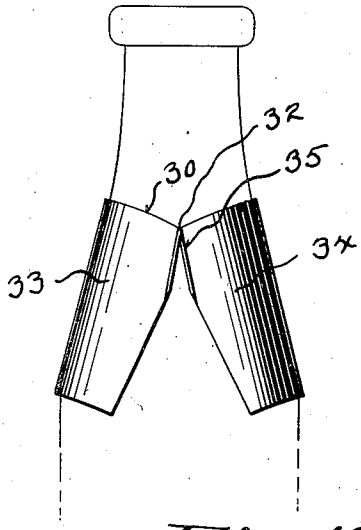


Fig. 9.

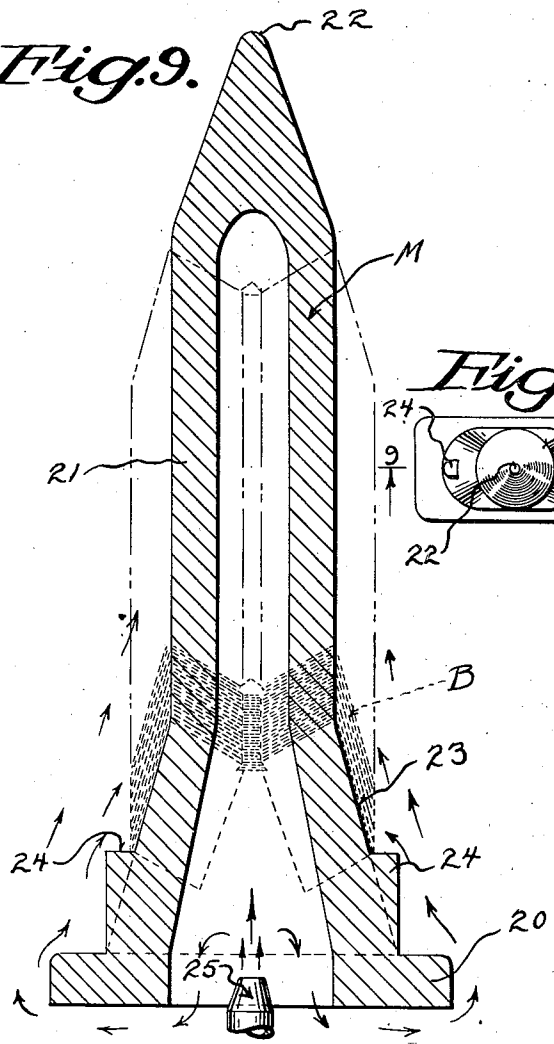
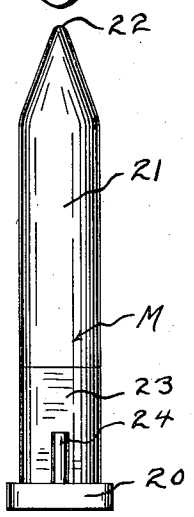


Fig. 11.

Fig. 10.



Inventor
L. S. Olsen
By
Attorneys

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UNITED STATES PATENT OFFICE

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BOTTLE DISPLAY COLLAR

Lester S. Olsen, Milwaukee, Wis., assignor to The Olsen Publishing Company, Milwaukee, Wis.

Application January 3, 1939, Serial No. 249,017

2 Claims. (Cl. 40—4)

This invention appertains to advertising devices, and more particularly to removable display collars for bottles.

It is highly desirable to provide some form of advertising or display device for association with milk bottles, which will not only be inexpensive to make, but which can be easily and quickly placed on the bottle and not interfere with the handling of the bottles during the placing thereof in their crates and delivery thereof, and which will carry the advertising or other display matter in attractive manners.

Many attempts have been made to produce such a display or advertising collar, and the majority or all of the same, to my knowledge, take the form of an elongated band, with the ends thereof brought in overlapping relation and secured in various manners to form a truncated conical body. Usually, the bands are of an arcuate shape, such as shown in the Wasser Patents Nos. 1,829,915, 1,923,856, and 1,999,011, issued, respectively, on November 3, 1931, August 22, 1933, and April 23, 1935. Straight-line printing is difficult or impossible with the arcuate bands, and the advertising matter cannot be displayed in a desirable manner, and special cutting dies are required. Likewise, there is a tendency for the wind to collect under and lift the collars off the bottle necks.

Therefore, one of the primary objects of my invention is to provide a display collar for bottles formed from a rectangular sheet, so treated as to readily form a truncated cone, without resorting to overlapping or securing the ends of strips or bands together.

Another object of my invention is to provide a display collar for bottles formed from a rectangular sheet, whereby a maximum amount of active and attractive printing or display surface will be provided, and whereby straight-line printing can be used, so that the cost of printing will be reduced to a minimum.

Another salient object of my invention is to so treat, cut, and score the sheet from which the collar is made that little or no parts of the device will protrude beyond the bottle surface, which will allow the convenient handling of the bottles.

A further important object of my invention is to provide novel means for preforming a display collar from a substantially rectangular paper sheet, whereby the collars can be easily stacked or nested for shipping and dispensing in a dairy, and whereby the collars can be placed on the bottles with one hand, while the bottles are traveling along the conveyor in the dairy.

A still further object of my invention is to provide a preformed collar of a truncated cone shape for resting around the neck of a bottle and into intimate contact with the body portion thereof, including a pair of wings disposed on opposite sides of a bottle, which are adapted to have their upper edges moved into intimate contact with the outer surface of the bottle neck, should wind catch under the wings, whereby to prevent the accidental displacement of the collar from the bottle.

A still further important object of my invention is to provide a collar of the above character, which can be easily removed from a bottle by a housewife and smoothed out to a flat form for retention by the housewife, should the collar contain recipes, household hints, valuable information, or other matter.

With these and other objects in view, which will appear as the description proceeds, the invention consists in the novel construction, arrangement, and formation of parts, as will be hereinafter more specifically described, claimed, and illustrated in the accompanying drawings, in which drawings:

Figure 1 is a plan view of a blank cut and scored to form the collar.

Figure 2 is a side elevational view of the collar after the forming thereof in the desired shape, the view also showing the collar applied to a milk bottle.

Figure 3 is a detail section taken on the line 3—3 of Figure 2, looking in the direction of the arrows, the view showing the collar in top plan and in its preformed condition.

Figure 4 is a modified form of blank from which one of my collars can be made, the blank being shown cut and scored to facilitate the easy shaping thereof.

Figure 5 is a side elevational view of the collar formed from the blank shown in Figure 4, the view also showing the collar applied to a milk bottle.

Figure 6 is a fragmentary, top plan view showing a modified form of central cut and scoring.

Figure 7 is a view similar to Figure 6, showing a still further modified form of cut.

Figure 8 is a view similar to Figures 6 and 7 and illustrating a still further form of cut.

Figure 9 is a central, vertical, sectional view through a mandril utilized in preforming the collars, a number of the collars being shown on the mandril in dotted lines, the view being taken substantially on the line 9—9 of Figure 11, looking in the direction of the arrows.

Figure 10 is an end elevational view of the mandril, the view being taken on a smaller scale than Figure 9.

Figure 11 is a top plan view of the mandril.

Referring to the drawings in detail, wherein similar reference characters designates corresponding parts throughout the several views, the letter B indicates a blank from which my novel preformed collar can be made, and, as illustrated, the blank consists of a rectangular paper sheet having parallel, longitudinal edges and parallel transverse edges. The blank at a point intermediate its ends, and preferably at its transverse center, is provided with a cross-cut 15, which terminates slightly short of the longitudinal edges of the blank. Relatively short parallel cuts 16 and 17 are formed at the ends of the transverse cut 15. This forms a sheet which can be easily folded on its transverse axis and slipped over the neck of a bottle through the slit 15, the slits 16 and 17 allowing for the size of the slit to be increased as the sheet is placed over the bottle neck.

My invention, however, proposes to treat the sheet in additional manners so that a collar can be formed in which a minimum amount of projection will be formed on a milk bottle, and one which can be readily nested and handled with hand by an operator. Thus, the blank is scored, besides being cut and pre-shaped.

As shown in Figure 1, the sheet is scored or creased in a V-shape, as at 18, on opposite ends of the transverse cut, and the score or V-shaped creased lines 18 form in conjunction with the longitudinal cuts 16 and 17, triangular portions, and the cuts form the base portions of the triangular members. By pushing down the opposite ends and lifting and pulling apart the portions of the sheet on opposite sides of the cut 15, a truncated cone is made, and the scoring 18 facilitates the forming of the collar and effectively reduces the projection of the collar beyond the surface of the bottle.

The collars can be preformed in any desired or preferred manner, and in Figures 9 to 11, inclusive, I have shown one form of mandril for forming a plurality of the collars at one time.

The mandril is generally indicated by the reference character M, and may include a base portion 20 having rising centrally therefrom a hollow cylindrical post 21. The upper end of the post is pointed, as at 22, so as to provide a leading end to facilitate the placing of the blanks B thereon. The portion of the post adjacent the base 20 on opposite sides gradually flares outwardly and gradually, as at 23. This part of the mandril carries stop shoulders 24 against which the lowermost blanks rest.

Obviously, the blanks can be readily placed on the mandril by placing the pointed end 22 through the slits 15, and as the blanks are forced down the mandril, the same are spread open, and when the blanks reach the flared portions 23 said portions will flare out the opposite sides of the blanks. After the desired number of the blanks have been pressed on the mandril, steam or other heat can be injected into the interior of the mandril through a jet or nozzle 25. The steam or other heating medium will flow out of the mandril and will follow the sides of the mandril and will tend to creep between the blanks and impregnate the blanks. The heat and steam will form the blanks into a substantially frusto-conical shape, and the blanks will retain the shape during handling and shipping.

Attention is directed to the fact that only the opposite sides of the mandril at its base are inclined downwardly and outwardly, and, thus, the blanks, while being preformed, take substantially an oval form in plan. After the blanks are removed, there is a tendency for the blanks to straighten, and, hence, the blanks will then tend to take a purely circular form in plan.

The blank may take many different forms, and, as suggested in dotted lines in Figures 1 and 2, the opposite sides of the blank can gradually increase in area from its transverse center to provide tabs 19. These tabs tend to complete the sides of the truncated cone when the collars are placed on the bottle, so that no open spaces will be had.

In order to prevent tearing, the blank, instead of being provided solely with a transverse slit, can be provided with a transversely extending cut-out portion or slot 26. This is clearly shown in Figure 6. While in Figure 6 the slot has been shown to have parallel sides edges, it is to be understood that the edges of the slot can be of an arcuate form, as indicated by the reference character 27 in Figure 7. As illustrated in Figure 8, not only can the slot have arcuate edges 27, but the ends thereof can be flared outwardly, as at 28, to join the longitudinal slits 29.

In some instances, it may be desirable (particularly to reduce cost) to eliminate the longitudinal slots 16 and 17, and in this instance, a blank can be provided, as shown in Figure 4. As illustrated in Figure 4, the blank is provided with a transverse cut or slit 30, and the terminals of the cut end short of the longitudinal edges of the blank. The blank is then scored or creased to provide diagonal diverging lines 31 and lines 32, which extend parallel to the slit 30. The blank shown in Figure 4 is preformed in the came manner as the other blanks, and, when formed, provides side wings 33 and 34 connected together by triangular tabs 35.

In view of the fact that my blanks are of a general rectangular shape and, when folded into their preformed shape, provide wings on opposite sides of the bottle, the blank can be readily printed in the manner of ordinary paper sheets, and, thus, the desired display and advertising matter can be readily impressed on the sheets in an economical and attractive way.

As the blanks hold their preformed shape, the same can be readily taken by one hand by an operator and dropped or slipped on the necks of bottles as the bottles run along the conveyor leading from the capping machinery.

In effect, the opposite sides or wings of my collar are hingedly connected at their transverse centers, and, thus, any wind collecting under the wings or side portions of the collar will tend to lift or swing up the wings or side portions and move the upper edges of the wings into intimate contact with the surface of the bottle and under the bead of the bottle neck. This will prevent the lifting and accidental displacement of the collars from the bottles.

Various changes in details may be made without departing from the spirit or the scope of my invention, but what I claim as new is:

1. A preformed display and advertising device for the neck of a bottle comprising, a collar of substantially frusto-conical shape formed from a single blank of sheet material and having a transverse slit to form a bottle neck-receiving opening, wings on opposite sides of the slit of an arcuate shape in horizontal cross sec-

tion, score lines at the ends of the slit defining triangular-shaped tabs connecting the wings together, said triangular tabs having their apexes at the side edges of the collar and their bases at the ends of the slit.

2. A preformed display and advertising device for the neck of a bottle comprising, a collar of substantially frusto-conical shape formed from a single blank of paper and having a medial slit, the ends of which intersect right angular slits parallel and spaced from the edges of the blank, the material between the right angular slits and edges of the blank forming triangular shaped tabs connecting the conical portion of the blank upon opposite sides of the medial slit, said triangular tabs having their apexes at the side edges of the blank and the medial slit being longitudinally bowed to receive the neck of the bottle.

LESTER S. OLSEN.