Dec. 15, 1936. A. BODOR 2,064,189

NONREFILLABLE BOTTLE

Filed Dec. 8, 1934

Fig. 1.

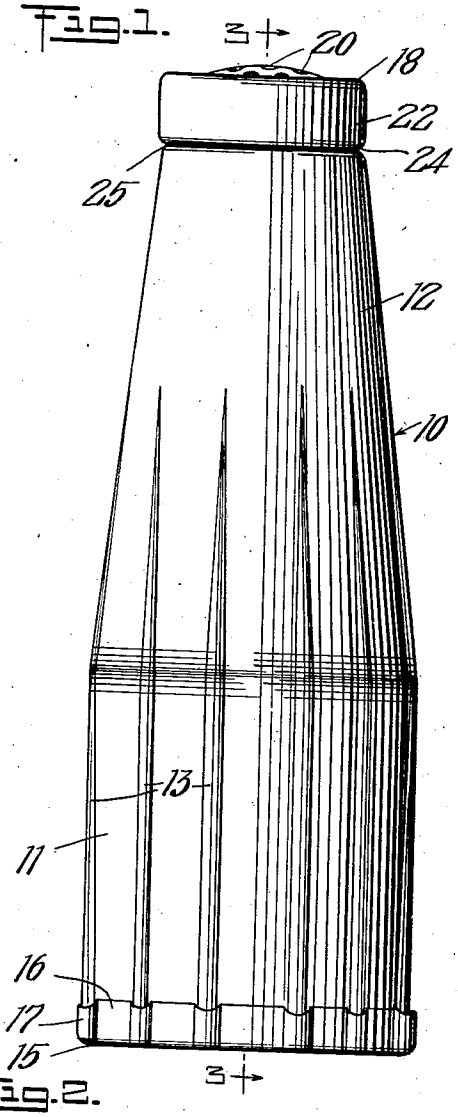


Fig. 3.

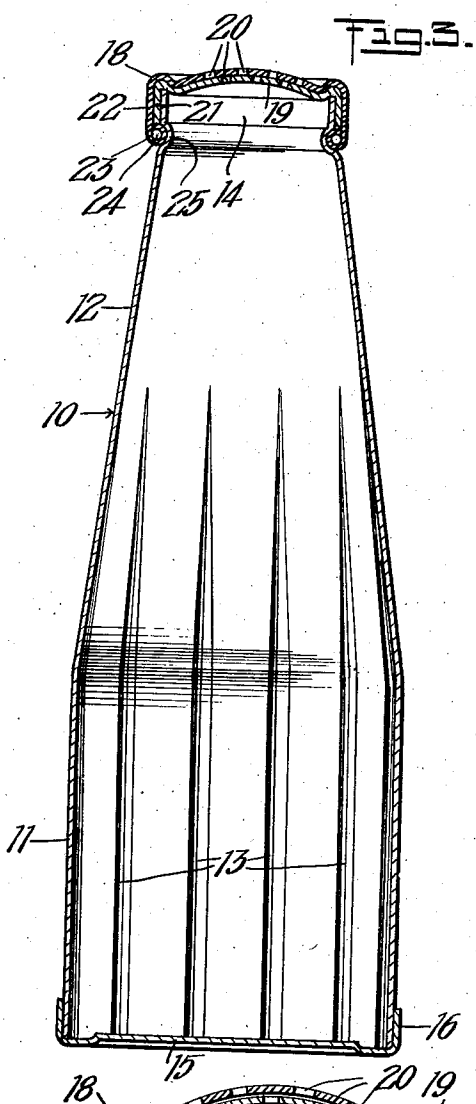


Fig. 2.

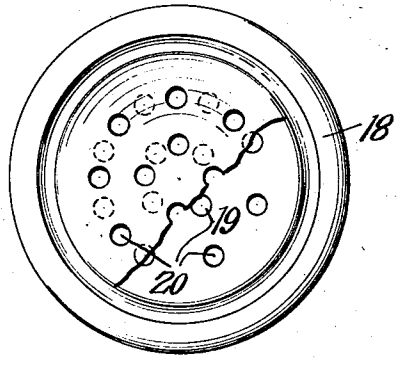
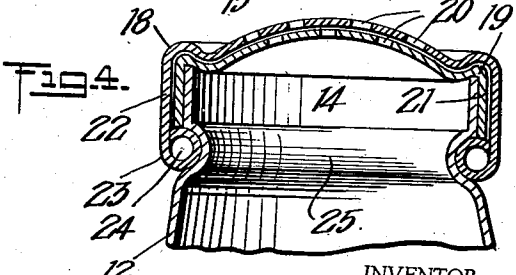


Fig. 4.



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NONREFILLABLE BOTTLE

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2 Claims. (Cl. 221—64)

Among the principal objects which the present invention has in view are: To provide an improved nonrefillable container formed of paper and formed to simulate a bottle; to provide ribs extending longitudinally from the bottom of the bottle and gradually tapering and disappearing towards the top of the bottle; to utilize the ribs as reinforcement for the bottle; to further utilize the ribs at the bottom of the bottle for receiving and securely holding a bottom closure thereto; to provide means adjacent the upper part of the bottle for securing a double closure cap thereon; to enable the outer cap to be rotated while the under cap remains stationary; to provide openings in the respective caps for registration when the outer closure cap is rotated into position, and adapted to be moved out of registration by slightly rotating the cap; and to provide a paper bottle of the non-refillable variety.

Drawing

Figure 1 is an elevation of the bottle embodying my invention;

Figure 2 is a top plan of the same;

Figure 3 is a vertical section shown as taken on the line 3—3 of Figure 1; and

Figure 4 is an enlarged sectional view of the upper part of the bottle.

Description

As seen in the drawing it will be noted that the present invention is especially directed to a bottle made of paper, and is constructed to be non-refillable. Such a bottle has many utilities, and some of the advantages may be enumerated as follows:—dispensing of oil at filling stations; liquids; condiments, such as salt, pepper, powders, sugar, and so forth. After all the contents have been dispensed, the bottle may then be destroyed.

In carrying out the invention, it is to be noted that the bottle 10 is preferably constructed from a one-piece material, such as a heavy ply paper and suitably shaped on a mandrel (not shown) to obtain the proper shape, and when completed will simulate the usual or standard type glass bottle. The present disclosure sets forth a bottom portion 11 of substantially cylindrical shape having straight side faces, and an upper portion which tapers towards the top of the bottle providing a substantially frusto-conical portion 12. In obtaining the proper shape to the bottle and to further assure durability as well as a sturdy construction, it is preferable that during the forming of the bottom portion 11 and frusto-conical portion 12, a plurality of crimps or ribs 13 be added thereto, said crimps or ribs to preferably appear on the outside surface of the bottle and may be more pronounced at the bottom or straight side faces and gradually taper toward and merge into the frusto-conical portion and disappear entirely toward the top thereof.

As shown more clearly in Figures 3 and 4, the upper or neck part of the bottle ends in a substantially cylindrical shape as at 14, the purpose of which will hereinafter be set forth. The bottom of the bottle or the part 11 having the outwardly projecting crimps or ribs 13 has an open end whereby the contents to be dispensed through the top of the bottle are inserted therein before sealing the same with a suitable closure. In this instance, and after the contents have been entirely inserted, a bottom closure 15 may be then secured thereto. It is to be noted that the closure 15 likewise is constructed with an upstanding flange 16, said flange providing outwardly projecting crimps or ribs 17, the number of ribs being the same as appearing in the bottom itself. It is preferable that the contents be inserted in the bottle through the bottom thereof after which the bottom closure may be made secure thereto. Before applying the closure to the bottom, the inner surface of the flange 16 and ribs 17, has an adhesive, preferably heat resisting and waterproof, spread thereon, after which the closure is put in place with the ribs 17 registering with the ribs 13. By using an adherent of the character described, the contents in the bottle cannot leak out from the bottom, and in order to remove the closure therefrom it must necessarily be mutilated thereby rendering the bottle unfit for further use. The top of the bottle 10 or that part with the straight wall 14 is provided with a double closure comprising an outer cap 18 and an inner cap 19 and each of said caps having a plurality of staggered openings 20 through which the contents from within the bottle may be dispensed. In construction the inner cap 19 is provided with a downwardly projecting flange 21 which in diameter is substantially the same as the outside diameter of the neck portion 14 whereby the cap may be made to fit snugly to the top thereof and prevented from rotation. While friction between the cap and bottle neck may suffice to accomplish the purpose, more positive means for preventing relative rotation of said cap on the bottle, such as by using an adhesive therebetween, may be included as

part of the structure if so desired. In other words, it is preferable that the cap 19 remain always stationary while on the other hand the upper or outer cap 18 will be free to move if so desired.

The outer cap 18 likewise may be provided with a downwardly projecting flange 22 of greater depth than the flange 21 of the inner cap 19. In this respect the flange 22 at its lower end is rounded inwardly, as at 23, to provide an annular member 24 which will fit snugly within the confines of an annular groove 25 provided for that purpose in the straight or neck portion 14 of the upper portion 12 of the bottle. It will be noted that with the caps 18 and 19 affixed in place thereon, only cap 18 will be free to rotate as clearly shown in Figure 4.

It further will be noted that the openings 20 do not normally register, therefore, the stationary cap 19 and rotatable cap 18 act as a double closure to the bottle. Should it be desired to dispense the contents, the cap 18 may be turned slightly until the openings in the respective caps register, after which the bottle may be inverted and the contents released and the bottle then destroyed. The bottle, after the contents have been released, cannot be used again, for to do so it would be necessary to distort the bottom closure cap 15 or the double closure caps 18 and 19 in order to remove them from the bottle, and when in distorted condition, the caps cannot be replaced in usable assembly on the bottle.

I claim:

1. A non-refillable bottle of the character described comprising a one-piece paper construction having a lower portion converging into a frusto-conical shape at the upper portion, and said frusto-conical shape terminating in a substantially straight neck and providing an annular groove adjacent the top thereof, a double closure cap fitting thereon and having openings normally out of registration, one of said caps having a flange with an annular member fitting within said annular groove and free to rotate therein, the other said cap having a downwardly projecting flange fitting the outside of said straight neck and held stationary thereby, the outside cap being rotatable whereby the openings will register.

2. A non-refillable bottle of the character described comprising a one-piece construction of sheet material having a lower portion converging into a frusto-conical shape at the upper portion, said upper portion terminating in a substantially straight neck and providing an annular groove between the terminus of the frusto-conical portion and said straight neck, a double closure cap fitting on the straight neck and having openings normally out of registration, the outer one of said caps having a downwardly projecting flange and terminating at its lower end into an inwardly directed rounded portion adapted to fit snugly within said annular groove, the other said cap having a downwardly projecting flange of less depth than the said first flange and fitting the outside of said straight neck and held stationary thereby, the outside cap being rotatable independent of the said other cap whereby the openings will register.

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