

[54] VESSEL AND SEALING MEMBER STRUCTURES FOR SPARKLING WINES

D225,972 1/1973 Khetani..... D9/37

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[22] Filed: Mar. 31, 1972

[21] Appl. No.: 240,095

[57] ABSTRACT

[52] U.S. Cl..... 215/1 R, 215/55, 215/97, 215/100 R

[51] Int. Cl..... B65d 45/30

[58] Field of Search..... 215/1 R, 1 C, 100 A, 47, 215/48, 83, 97, 55; 206/DIG. 8; D9/37

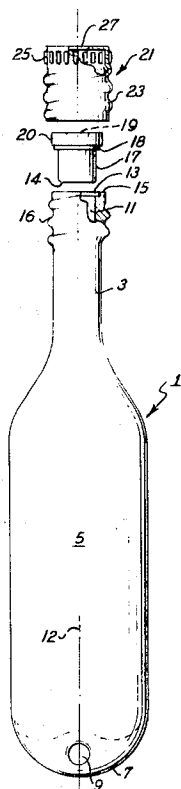
A vessel for wine which is under pressure includes a threaded neck, an elongated body, a tapered, and preferably rounded, bottom with thickened walls. The lower aspect of which has an opening which is transverse to the longitudinal axis of the bottle for receiving a holding member. The threaded neck engages a screw cap which has an opening at its apex. A sealing member, such as a cork is configured to fit within the opening of the neck, the latter having a circular opening surrounded by an inner recess in the mouth area and an outer rim. The cap engages the top of the sealing member and it has an opening which permits wine in the bottle to "breathe." A configuration of the vessel is such that it is normally rested on its side.

[56] References Cited

UNITED STATES PATENTS

209,466	10/1878	Dabbs .....	215/1 R UX
579,619	3/1897	Watkins .....	215/97
1,664,147	3/1928	Wood .....	215/83
1,814,650	7/1931	Waite .....	215/1 R X
2,449,014	9/1948	Shaffer .....	215/97 X
D163,443	5/1951	Crane .....	D9/37 X

8 Claims, 5 Drawing Figures



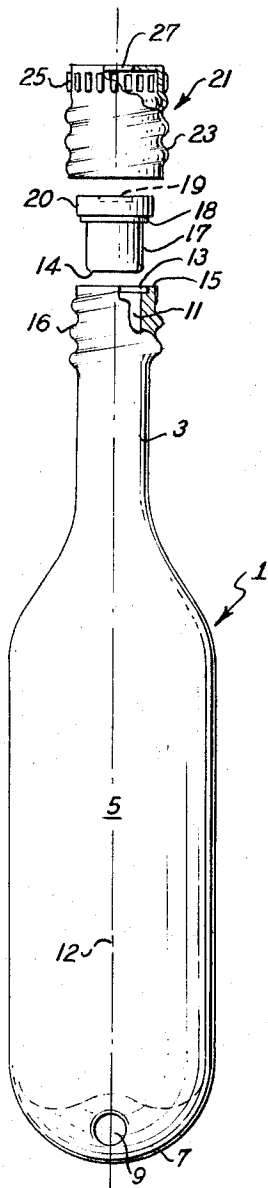


FIG. 1

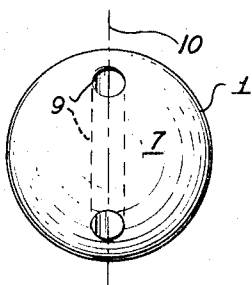


FIG. 2

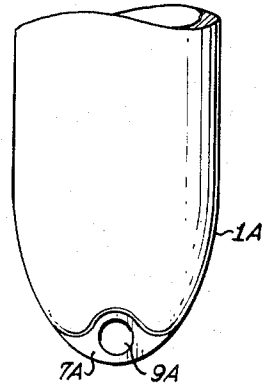


FIG. 3

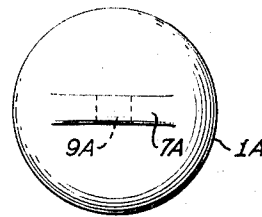


FIG. 4

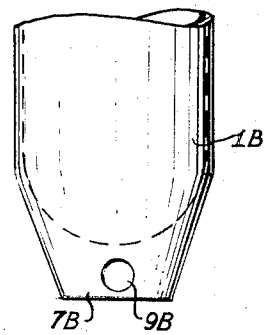


FIG. 5

## VESSEL AND SEALING MEMBER STRUCTURES FOR SPARKLING WINES

### BACKGROUND OF THE INVENTION

This invention relates to the structure of a bottle and its closure which contains a sparkling type wine under pressure.

Commercial bottles intended for potable liquids are almost always flat on the bottom for stability when stored or during use. This configuration is not, however, the most favorable for the strength of the bottle, nor does it facilitate the insertion of conventional bottles into ice buckets. Still further, wine stored for any significant period of time should be in a bottle which has its longitudinal axis generally horizontal in order to maintain its cork in a moist condition.

At present, once the sealing cork of bottles for sparkling wines which are under pressure is removed, it is difficult to replace. Thus, if such wine is not consumed within a relatively short period after the cork has been removed, it tends to become flat.

Still further, as with still wines, it is important that sparkling wines have corks which breathe. But this requirement is frequently hampered due to the need for the cork member also to contain the pressure within the vessel for sparkling type wines.

It is such problems that the instant invention is directed to solving and at the same time to provide a structurally stronger bottle for sparkling wines which, in addition, is capable of being handled with increased facility from manufacture to consumption.

### SUMMARY OF THE INVENTION

It has occurred to the inventor that the design of the conventional bottle for sparkling wines ensures that the bottle is more bulky and heavier than desirable or necessary to its function, that it is likely to be stored upright for undue periods of time at the winery, at the wholesaler's warehouse, at the retail outlet, and finally by the consumer. The design of conventional cork seals for sparkling wines are, moreover, practically impossible to replace, once removed by the consumer. My solution is to form the bottom of the bottle in a rounded configuration so that the bottle cannot stand upright unassisted and is, therefore, normally resting on its side. It is also stronger for a given amount of the glass material, lighter and more compact. The cork is generally maintained in a moist condition and, finally upon consumption, the bottle is more easily inserted into a conventional ice bucket. In order to provide a seal which dependably maintains pressure within the bottle and at the same time is replacable, I include a recess around the periphery of the opening in the top of the bottle and a stepped portion around the circumference of the cork at the top which is received by the recess, thus providing, in effect, a double seal. A screw cap placed over the cork mechanically holds same in the neck of the bottle and ensures that it will not be popped out by pressure within the bottle. However, once the cork is released after removing the screw cap, the cork may be replaced in much the same manner as a cork in a bottle of still wine. An opening placed transversely through glass in the rounded bottom of the bottle permits the handling of same in many ways both mechanically for production purposes and manually.

A portion of the cork is exposed through an opening in the gripping cap secured to the top of the cork and a further aligned opening in the screw cap so that the cork can breathe. Due to the fact that the cork is maintained in a moist condition, the cork need not be initially compressed to the degree that is conventionally the case with sparkling wines and the compression may be more nearly the same as utilized with still wines and as desired to govern the breathing characteristics of the cork.

Other advantages, adaptabilities and capabilities will appear as the description progresses, reference being had to the accompanying drawings, in which:

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an exploded side elevation of the vessel showing the sealing member and cap separated;

FIG. 2 is a bottom plan view of the rounded bottom of the FIG. 1 vessel;

FIG. 3 is an elevation of the lower part of the FIG. 1 vessel with a modified bottom;

FIG. 4 is a bottom plan view of the FIG. 3 vessel; and

FIG. 5 is an elevation of the FIG. 1 vessel with a further modification of its bottom.

### DESCRIPTION OF THE PREFERRED EMBODIMENTS

In FIG. 1, the vessel 1 is shown with a threaded neck 3, an elongated body 5 and a rounded bottom 7, having a thickened wall with an opening 9 in the wall below the vessel's interior cavity. Preferably the axis 10 of opening 9 is transverse to the longitudinal axis of vessel 1. It is preferred that the bottom 7 be round so that the vessel normally can only be rested on its side whereby cork 17 is maintained in a moist condition. To this end, the vessel can, as desired, be flattened or otherwise configured to resist rolling. The rounded bottom 7 appears to be, and in fact is, stronger than the conventional wine bottle. Moreover, it also can be more easily fitted in an ice bucket. Thus, the vessel disclosed herein is particularly adapted to contain wine under pressure, such as champagne and other sparkling wines.

It is to be seen from FIG. 1 and FIG. 2 that opening 9 extends transversely completely through the walls of the bottom 7, preferably at the latter's central area when the vessel is viewed in side elevation. A string, rope, hook member or other holding member can readily be attached to the bottom at opening 9 for various handling, storing and display purposes.

As seen in FIG. 1, threaded neck 3 has a rounded opening 11 with a concentric inner recess 13 and an outer rim 15 which is stepped above recess 13. A sealing member, preferably a cork 17, fits within opening 11 so that a stepped portion 18 closely mates with recess 13. If a separate washer is used in lieu of the stepped portion it can be inexpensive plastic. A gripping top portion 20 can also be of plastic which is apertured at 19 so that the cork 17 can "breathe." Cork 17 is bevelled about its periphery at its bottom, as indicated by reference numeral 14, to facilitate its entry into opening 11. The sealing member can be the same as that shown in FIG. 1 of U.S. Pat. No. 3,559,834.

A preferably screw cap 21 has grooves 23 to be received by threads 16 included at the upper end of neck 3. Cap 21, which is preferably metal or other substance

having sufficient strength to retain cork 17 against the internal pressure of the sparkling wine has knurls 25 and also has a central aperture 27 at its apex, again to permit cork 17 to "breathe."

In FIG. 3, a modified bottom 7A tapers downwardly towards its bottom with opening 9A located in the thickness of the glass. The bottom 7A is rounded as shown in FIG. 4 to terminate in a blunt point, and also pinched so that opening 9A is much shorter than opening 9.

In FIG. 5, a further modification is provided with the bottom 7B again tapering so that the side walls converge when the bottom is viewed in side elevation. The bottom 7B has an opening 9B through its glass portion which does not enter the interior of the bottle. Although it is possible for this bottle to be stable in an upright position on a flat surface, it is intended to be normally stored on its side.

The vessel disclosed herein is preferably made of glass which can be tinted or otherwise attractively ornamented for marketing purposes. The precise dimensions, of course, may be varied to accommodate manufacturing and storing considerations, and in this connection, the vessel is structured and designed to allow improved stacking and storage. An important objective of the structure is that the vessel is normally rested on its side so that the sealing member or cork is maintained in a moist condition by the vessel's contents to ensure effective sealing of the bottle by a cork which can be replaced in the bottle after removal by the consumer.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A bottle adapted to contain a sparkling type wine under pressure which comprises a rounded bottom portion whereby the bottle is unable to stand upright on a flat surface unassisted, the configuration of the bottle being otherwise so that it normally rests with its longitudinal axis substantially horizontal, a neck portion, a removable stopper including a first cork portion which is received in said neck portion in a state of compression whereby it is adapted to be in contact with and maintained in a moist condition by wine in said bottle when its longitudinal axis is in a substantially horizontal position, said removable stopper also including a stepped second cork portion which bears on and is snugly received in a state of compression in a recess provided around the periphery of said neck portion, a top part composed of a rigid material fixedly connected to said stopper said neck portion threaded on its outer surface, a threaded cap secured to said threaded neck portion and extending at least in part over the top part thereby retaining said cork portions in sealing engagement within said neck portion.

2. A bottle in accordance with claim 1 wherein said cap has an opening in its upper aspect exposing in part the top of said cork whereby said cork can breathe.

3. A closure for a sparkling wine bottle which comprises:

an integral stopper composed of cork, comprising a cylindrical first cork portion in a state of compression which is snugly received in the neck of the wine bottle,

a stepped second cork portion which bears on and is snugly received in a state of compression in a re-

cess provided around the periphery of the neck of the wine bottle;

a top part composed of a rigid material fixedly connected to said cork stopper adjacent the mouth of said bottle for manually removing and replacing said cork; and

a cap threadably received by said bottle extending over said top part thereby mechanically retaining said cork in sealing engagement within the neck of the wine bottle.

4. A glass wine bottle having a rounded substantially hemispherical thickened glass bottom whereby the bottle will not stand upright unassisted, the thickened glass bottom of said bottle having an opening therethrough which is transverse to the longitudinal axis of the bottle and is exterior to the interior of the bottle.

5. A bottle for containing sparkling type wines under pressure which comprises a rounded bottom portion whereby the bottle is unable to stand upright on a flat surface unassisted, the configuration of the bottle being otherwise so that it normally rests with its longitudinal axis substantially horizontal, a neck portion, a cork received in said neck portion whereby it is in contact with wine in said bottle when said bottle is filled therewith and has a longitudinal axis in a substantially horizontal position, said neck portion threaded on its outer surface, a threaded cap received by said threaded neck portion and extending at least in part over the top of said cork thereby mechanically retaining said cork in sealing engagement within the neck of said wine bottle, said cap having an opening in its upper aspect exposing in part the top of said cork whereby said cork can breathe, gripping means being affixed to said cork around its upper periphery immediately above the mouth of said bottle, said gripping means having an opening in its upper aspect in direct communication with the opening in the upper aspect of said cap.

6. A closure for a sparkling wine bottle which comprises:

a cork, comprising a cylindrical first cork portion which is snugly received in the neck of the wine bottle;

a stepped second cork portion which bears on and is snugly received in a recess around the periphery of the neck of the wine bottle;

a top part fixedly connected to said cork adjacent the mouth of said bottle for manually removing and replacing said cork;

a cap threadably received by said bottle extending over said top part thereby mechanically retaining said cork in sealing engagement within the neck of the wine bottle, said top part and said cap having juxtaposed openings in their upper portions whereby said cork can breathe.

7. A wine vessel structure which normally rests on its side comprising an elongated body portion with a threaded neck at the upper end thereof and a tapered bottom having a thickened bottom wall at its lower aspect, the sides of said bottom converging to a flat bottom surface, said bottom wall having a transverse opening therethrough for attaching a holding member, said threaded neck comprising a top circular opening in said vessel structure with an inner recess and an outer rim surrounding said opening to receive a sealing member consisting of a cork stopper and said threaded neck retaining a screw cap whereby said sealing member is compressed against said recess and rim, said elongated

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body normally resting with its longitudinal axis extending in a generally horizontal position with the opening in said bottom and the opening in said neck being horizontally spaced from one another, whereby said sealing member is adapted to be in contact with wine in the bottle and maintained in a moist condition when in a horizontal position or when in an inverse position while being held by said holding member.

8. A wine vessel structure which normally rests on its side comprising an elongated body portion with a threaded neck at the upper end thereof and a tapered bottom having a thickened bottom wall at its lower aspect, the sides of said bottom converging and being rounded to terminate in a blunted point, said sides and blunted point forming a continuous, smooth curve, said bottom wall having a transverse opening therethrough located adjacent said blunted point for attaching a

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holding member, said threaded neck comprising a top circular opening in said vessel structure with an inner recess and an outer rim surrounding said opening to receive a sealing member consisting of a cork stopper and said threaded neck retaining a screw cap whereby said sealing member is compressed against said recess and rim, said elongated bottom normally resting with its longitudinal axis extending in a generally horizontal position with the opening in said bottom and the opening in said neck being horizontally spaced from one another, whereby said sealing member is adapted to be in contact with wine in the bottle and maintained in a moist condition when in a horizontal position or when in an inverse position while being held by said holding member.

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