United States Patent Application Publication	20250263289
Kind Code	A1
Publication Date	August 21, 2025
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BEVERAGE DISPENSING SYSTEM

Abstract

A beverage dispensing system for receiving a liquid-filled bag and dispensing liquid therefrom includes a housing having a front wall, a rear wall, and a peripheral wall being attached to and extending between the front wall and the rear wall thereby bounding an interior space. The peripheral wall has a hole therein. The hole provides access to the interior space. The bag fits through the hole and is positionable in the interior space. A lid is pivotably attached to the peripheral wall adjacent to the hole, pivoting open to provide access to the interior space through the hole and pivoting closed to inhibit access to the interior space. A liquid-containing bag fits within the interior space through the hole. A spout assembly fluidly couples the bag with the housing, the fluid flowing outwardly from the bag through the spout assembly when the bag is positioned within the interior space.

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Family ID: **1000007697344**

Appl. No.: **18/583252**

Filed: **February 21, 2024**

Publication Classification

Int. Cl.: **B67D3/00** (20060101)

U.S. Cl.:

CPC **B67D3/0067** (20130101);

Background/Summary

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not Applicable

THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

[0003] Not Applicable

INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC OR AS A TEXT FILE VIA THE OFFICE ELECTRONIC FILING SYSTEM.

[0004] Not Applicable

STATEMENT REGARDING PRIOR DISCLOSURES BY THE INVENTOR OR JOINT INVENTOR

[0005] Not Applicable

BACKGROUND OF THE INVENTION

(1) Field of the Invention

[0006] The disclosure relates to beverage dispensers and more particularly pertains to a new beverage dispenser for receiving a liquid-filled bladder and dispensing liquid therefrom.

(2) Description of Related Art Including Information Disclosed Under 37 CFR 1.97 and 1.98

[0007] The prior art relates to beverage dispensers. The prior art discloses various beverage dispensing housings that are couplable with bladders or bags that hold a liquid. For example, the prior art discloses boxed wine assemblies wherein the wine is stored in a plastic bag and the plastic bag is stored within a cardboard housing. However, such assemblies are typically designed for a single use, with the housings and the bladders being affixed together and the entire assembly being disposable after the liquid is completely dispensed from the bladder. Thus, there is a need in the art for a beverage dispensing system with a reusable housing that can be coupled to a bag filled with a fluid so that the fluid can be dispensed from the bag within the housing. There is also a need for a system having interchangeable, fluid-filled bags so that a user can exchange one fluid-filled bag for a different fluid-filled bag while using the same housing.

BRIEF SUMMARY OF THE INVENTION

[0008] An embodiment of the disclosure meets the needs presented above by generally comprising a housing having a front wall, a rear wall, and a peripheral wall being attached to and extending between the front wall and the rear wall thereby bounding an interior space. The peripheral wall has a hole therein. The hole provides access to the interior space. The bag fits through the hole and is positionable in the interior space. A lid is pivotably attached to the peripheral wall. The lid is positioned adjacent to the hole, pivoting open to provide access to the interior space through the hole and pivoting closed to inhibit access to the interior space. The embodiment further comprises a bag containing a liquid that fits within the interior space. The bag is positionable in the interior space through the hole. A spout assembly fluidly couples the bag with the housing, the fluid flowing outwardly from the bag through the spout assembly when the bag is positioned within the interior space.

[0009] There has thus been outlined, rather broadly, the more important features of the disclosure in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the disclosure that will be described hereinafter, and which will form the subject matter of the claims appended hereto.

[0010] The objects of the disclosure, along with the various features of novelty which characterize the disclosure, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

Description

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWING(S)

[0011] The disclosure will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description references the annexed drawings wherein:

[0012] FIG. **1** is an isometric view of a beverage dispensing system according to an embodiment of the disclosure.

[0013] FIG. **2** is an isometric view of an embodiment of the disclosure.

[0014] FIG. **3** is an isometric view of an embodiment of the disclosure.

[0015] FIG. **4** is a cross-sectional view of an embodiment of the disclosure.

[0016] FIG. **5** is a side detailed view of an embodiment of the disclosure.

[0017] FIG. **6** is a side detailed view of an embodiment of the disclosure.

[0018] FIG. **7** is a detailed view of an embodiment of the disclosure.

[0019] FIG. **8** is an in-use view of an embodiment of the disclosure.

DETAILED DESCRIPTION OF THE INVENTION

[0020] With reference now to the drawings, and in particular to FIGS. **1** through **8** thereof, a new beverage dispenser embodying the principles and concepts of an embodiment of the disclosure and generally designated by the reference numeral **10** will be described.

[0021] As best illustrated in FIGS. **1** through **8**, the beverage dispensing system **10** generally comprises a housing **12** having a front wall **14**, a rear wall **16**, and a peripheral wall **18** being attached to and extending between the front wall **14** and the rear wall **16** thereby bounding an interior space **20**. The peripheral wall **18** may be convexly arcuate between the front wall **14** and the rear wall **16**. The front wall **14** and the rear wall **16** may be circular. In some embodiments, the housing **12** may be formed substantially in the shape of a barrel and may be decorated and designed to resemble a barrel, as shown in FIG. **1**.

[0022] The peripheral wall **18** has a hole therein. The hole provides access to the interior space **20**. A lid **24** is pivotably attached to the peripheral wall **18** and is positioned adjacent to the hole **22**. The lid **24** pivots open to provide access to the interior space **20** through the hole **22** and pivots closed to inhibit access to the interior space **20**. For example, a hinge **26** may pivotably couple the lid **24** to the peripheral wall **18**. A grip **28** may be attached to the lid **24**. In some embodiments, the grip **28** is positioned opposite the lid **24** from the hinge **26**, such that a user **82** can pivot the lid **24** open when holding the grip **28**.

[0023] The beverage dispensing system **10** further comprises a bag **30** containing a liquid **32**. The bag **30** fits through the hole **22** when the lid **24** is open whereby the bag **30** is positionable within the interior space **20**. For example, the bag **30** may comprise a flexible bladder, such as the plastic bags used for boxed wine. In typical embodiments, the bag **30** is configured for a single use, for example comprising plastic or other materials such that the bag **30** is disposable after the single use.

[0024] The bag **30** may be removed from the housing **12** and replaced with an alternative bag, for example containing a different liquid. In one such example, the bag **30** may contain whiskey and the alternative bag may contain rum. When the user **82** wants to serve rum, rather than whiskey, the user **82** can simply remove the bag **30** from the housing **12** and insert the alternative, rum-containing bag. In another such example, the user **82** may remove the bag **30** once all of the liquid **32** has been dispensed and replace the bag **30** with a new bag, containing either the same liquid **32** or a different liquid. A handle **80** may be attached to the bag **30** to facilitate positioning the bag **30** within the interior space **20** and exchanging the bag **30** with the alternative or new bag.

[0025] A spout assembly **34** fluidly couples the bag **30** with the housing **12**. The liquid **32** flows outwardly from the bag **30** through the spout assembly **34** when the bag **30** is positioned within the

interior space **20**. Embodiments of the spout assembly **34** comprise a port **36** that is coupled to the bag **30**, wherein the liquid **32** flows outwardly from the bag **30** through the port **36**. The port **36** has an opening **38** therein. A seal **40** covers the opening **38**. The seal **40** is breakable to expose the opening **38** whereby the liquid **32** is permitted to flow outwardly from the bag **30** through the opening **38** of the port **36**. A cap **42** is rotatably coupled to the port **36**.

[0026] A spout **44** is coupled to the front wall **14**. The spout **44** has an inlet portion **46** and an outlet portion **48**. The inlet portion **46** extends into the interior space **20** and the outlet portion **48** extends outwardly from the front wall **14**. A stem **50** protrudes from the inlet portion **46**. The stem **50** breaks through the seal **40** when the stem **50** physically contacts the seal **40**. The stem **50** has a duct **52** extending therethrough, and the liquid **32** flows through the duct **52** when the stem **50** has broken the seal **40**.

[0027] The cap **42** includes a cap threading **54** and the inlet portion **46** includes a spout threading **56**. The cap threading **54** is complementary to the spout threading **56** such that the cap **42** is threadably couplable to the spout **44**. Rotation of the cap **42** over the inlet portion **46** is configured to draw the stem **50** toward the seal **40** until the stem **50** physically contacts the seal **40** thereby breaking the seal **40** and exposing the opening **38** whereby the port **36** is fluidly coupled with the spout **44**.

[0028] A valve **58** is coupled to the outlet portion **48**. The valve **58** is movable between an open position and a closed position. The liquid **32** flows outwardly though the outlet portion **48** when the valve **58** is in the open position and the liquid **32** is inhibited from flowing outwardly through the outlet portion **48** when the valve **58** is in the closed position. The example provided in FIG. **7** shows the valve **58** comprising a turn-ball valve, although other types of valves may also be used.

[0029] A support **60** may also be included in the beverage dispensing system **10**. The support **60** is generally positionable beneath the housing **12**. The support **60** is configured to hold the housing **12**. In some embodiments, the support **60** has a first side **62**, a second side **64**, a top side **66**, and a bottom side **68**. The top side **66** may be concavely arcuate between the first side **62** and the second side **64** and the bottom side **68** may be flat. For example, the support **60** may include a first support **70** that is positioned proximate to the front wall **14** and a second support **72** that is positioned proximate to the rear wall **16**. In such embodiments, the first support **70** is spaced from the second support **72**. The support **60** may be removably positionable beneath the housing **12**, or the support **60** may be attached or integrally coupled to the housing **12**.

[0030] A ventilation mechanism **74** may be attached to the bag **30**. The ventilation mechanism **74** can open to permit a gas into the bag **30** thereby increasing pressure within the bag **30** and facilitating the liquid **32** in flowing outwardly through the spout assembly **34**. In some embodiments, the ventilation mechanism **74** includes the bag **30** having an aperture **76** therein, wherein the gas is permitted to flow into the bag **30** through the aperture **76** when the ventilation mechanism **74** is opened. A plug **78** may be attachable to the bag **30** over the aperture **76**. For example, the plug **78** may be rotatably coupled to the bag **30** wherein rotation of the plug **78** in a first direction opens the ventilation mechanism **74** and rotation of the plug **78** in a second direction closes the ventilation mechanism **74** thereby inhibiting gas flow through the aperture **76**.

[0031] In use, the bag **30** can be positioned in the interior space **20** with the port **36** adjacent to the spout **44**. The spout assembly **34** can then be used to couple the bag **30** with the housing **12**. In other words, the cap **42** can be rotated around the inlet portion **46** until the stem **50** breaks the seal **40**, exposing the opening **38** of the port **36**. The spout **44** is thereby fluidly coupled with the port **36** such that the liquid **32** can flow outwardly from the bag **30**, through the port **36**, and through the spout **44**. The valve **58** can be adjusted to the open position to dispense the liquid **32** out of the housing **12**, for example to serve a beverage as shown in FIG. **8**. The valve **58** can be adjusted to the closed position to inhibit the liquid **32** from flowing out of the housing **12** and to retain the liquid **32** within the bag **30**. When desired or needed, the bag **30** can be removed from the housing **12** by unscrewing the cap **24** from the inlet portion **46** and disconnecting the port **36** from the spout

44. The bag **30** can then be removed from the interior space **20** and exchanged with an alternative or new bag.

[0032] With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of an embodiment enabled by the disclosure, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by an embodiment of the disclosure.

[0033] Therefore, the foregoing is considered as illustrative only of the principles of the disclosure. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the disclosure to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the disclosure. In this patent document, the word “comprising” is used in its non-limiting sense to mean that items following the word are included, but items not specifically mentioned are not excluded.

[0034] A reference to an element by the indefinite article “a” does not exclude the possibility that more than one of the elements is present, unless the context clearly requires that there be only one of the elements.

Claims

1. A beverage dispensing system comprising: a housing having a front wall, a rear wall, and a peripheral wall being attached to and extending between the front wall and the rear wall thereby bounding an interior space; the peripheral wall having a hole therein, the hole providing access to the interior space; a lid being pivotably attached to the peripheral wall, the lid being positioned adjacent to the hole, the lid pivoting open to provide access to the interior space through the hole; a bag containing a liquid, the bag fitting within the interior space, the bag being positionable in the interior space through the hole; and a spout assembly fluidly coupling the bag with the housing, the liquid flowing outwardly from the bag through the spout assembly when the bag is positioned within the interior space.

2. The beverage dispensing system of claim 1, further comprising a handle being attached to the bag.

3. The beverage dispensing system of claim 1, the peripheral wall being convexly arcuate between the front wall and the rear wall, the front wall and the rear wall being circular.

4. The beverage dispensing system of claim 1, the spout assembly further comprising: a port being coupled to the bag, wherein the liquid flows outwardly from the bag through the port; the port having an opening therein; a seal covering the opening, the seal being breakable to expose the opening whereby the liquid is permitted to flow outwardly from the bag through the opening of the port; a cap being rotatably coupled to the port; a spout being coupled to the front wall, the spout having an inlet portion and an outlet portion, the inlet portion extending into the interior space, the outlet portion extending outwardly from the front wall; a stem protruding from the inlet portion, the stem breaking through the seal when the stem physically contacts the seal; the stem having a duct extending therethrough, the liquid flowing through the duct when the stem has broken the seal; the cap including a cap threading and the inlet portion including a spout threading, the cap threading being complementary to the spout threading such that the cap is threadably couplable to the spout, wherein rotation of the cap over the inlet portion is configured to draw the stem toward the seal until the stem physically contacts the seal thereby breaking the seal and exposing the opening whereby the port is fluidly coupled with the spout.

5. The beverage dispensing system of claim 4, further comprising a valve being coupled to the outlet portion, the valve being movable between an open position and a closed position, wherein

the liquid flows outwardly though the outlet portion when the valve is in the open position, wherein the liquid is inhibited from flowing outwardly through the outlet portion when the valve is in the closed position.

6. The beverage dispensing system of claim 5, the valve further comprising a turn-ball valve.

7. The beverage dispensing system of claim 1, further comprising: a ventilation mechanism being attached to the bag, the ventilation mechanism opening to permit a gas into the bag thereby increasing pressure within the bag and facilitating the liquid in flowing outwardly through the spout assembly.

8. The beverage dispensing system of claim 7, the ventilation mechanism further comprising: the bag having an aperture therein, wherein the gas is permitted to flow into the bag through the aperture when the ventilation mechanism is opened; and a plug being attachable to the bag over the aperture, the plug being rotatably coupled to the bag wherein rotation of the plug in a first direction opens the ventilation mechanism and rotation of the plug in a second direction closes the ventilation mechanism thereby inhibiting the gas from flowing through the aperture.

9. The beverage dispensing system of claim 1, further comprising a support being positionable beneath the housing, the support being configured to hold the housing.

10. The beverage dispensing system of claim 9, the support further comprising a first side, a second side, a top side, and a bottom side, the top side being concavely arcuate between the first side and the second side, the bottom side being flat.

11. The beverage dispensing system of claim 9, the support further comprising: a first support being positioned proximate to the front wall; and a second support being positioned proximate to the rear wall, the first support being spaced from the second support.

12. A beverage dispensing system comprising: a housing having a front wall, a rear wall, and a peripheral wall being attached to and extending between the front wall and the rear wall thereby bounding an interior space, the peripheral wall being convexly arcuate between the front wall and the rear wall, the front wall and the rear wall being circular; the peripheral wall having a hole therein, the hole providing access to the interior space; a lid being pivotably attached to the peripheral wall, the lid being positioned adjacent to the hole, the lid pivoting open to provide access to the interior space through the hole, the lid pivoting closed to inhibit access to the interior space; a bag containing a liquid, the bag fitting through the hole when the lid is open whereby the bag is positionable within the interior space; a spout assembly fluidly coupling the bag with the housing, the liquid flowing outwardly from the bag through the spout assembly when the bag is positioned within the interior space, the spout assembly comprising: a port being coupled to the bag, wherein the liquid flows outwardly from the bag through the port; the port having an opening therein; a seal covering the opening, the seal being breakable to expose the opening whereby the liquid is permitted to flow outwardly from the bag through the opening of the port; a cap being rotatably coupled to the port; a spout being coupled to the front wall, the spout having an inlet portion and an outlet portion, the inlet portion extending into the interior space, the outlet portion extending outwardly from the front wall; a stem protruding from the inlet portion, the stem breaking through the seal when the stem physically contacts the seal; the stem having a duct extending therethrough, the liquid flowing through the duct when the stem has broken the seal; the cap including a cap threading and the inlet portion including a spout threading, the cap threading being complementary to the spout threading such that the cap is threadably couplable to the spout, wherein rotation of the cap over the inlet portion is configured to draw the stem toward the seal until the stem physically contacts the seal thereby breaking the seal and exposing the opening whereby the port is fluidly coupled with the spout; a valve being coupled to the outlet portion, the valve being movable between an open position and a closed position, wherein the liquid flows outwardly though the outlet portion when the valve is in the open position, wherein the liquid is inhibited from flowing outwardly through the outlet portion when the valve is in the closed position, the valve comprising a turn-ball valve; and a support being positionable beneath the housing, the support being

configured to hold the housing, the support having a first side, a second side, a top side, and a bottom side, the top side being concavely arcuate between the first side and the second side, the bottom side being flat, the support including: a first support being positioned proximate to the front wall; a second support being positioned proximate to the rear wall, the first support being spaced from the second support; a ventilation mechanism being attached to the bag, the ventilation mechanism opening to permit a gas into the bag thereby increasing pressure within the bag and facilitating the liquid in flowing outwardly through the spout assembly, the ventilation mechanism including: the bag having an aperture therein, wherein the gas is permitted to flow into the bag through the aperture when the ventilation mechanism is opened; a plug being attachable to the bag over the aperture, the plug being rotatably coupled to the bag wherein rotation of the plug in a first direction opens the ventilation mechanism and rotation of the plug in a second direction closes the ventilation mechanism thereby inhibiting the gas from flowing through the aperture; and a handle being attached to the bag.