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(54) **TAPPING HEAD WITH TAP FOR DISPENSING A PRESSURISED LIQUID FROM A KEG**

ZAPFKOPF MIT ZAPFHAHN FÜR DIE ABGABE EINER UNTER DRUCK STEHENDE FLÜSSIGKEIT
AUS EINEM FASS

TÊTE DE SOUTIRAGE ET ROBINET POUR LE SOUTIRAGE D'UN LIQUIDE SOUS PRESSION D'UN
FÛT

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Description

TECHNICAL FIELD

[0001] The present description relates to a device for extracting a pressurized liquid, in particular a plastic device adapted for extracting a pressurized liquid from a plastic container; namely from a barrel.

BACKGROUND

[0002] Various types of systems for dispensing pressurized beverages at home are known. Some of these systems are adapted to PET barrels, which are sold to consumers with the beverage intended for extraction.

[0003] EP1954624B1 discloses a beverage dispensing system, comprising a container for a beverage, this container being composed of a detachable and disposable single-piece.

[0004] EP1651558A1 discloses an assembly of a drink dispenser comprising a chamber for accommodating a container containing carbonated drink, a lid for closing off the chamber, a dispensing head by means of pressure and with a reservoir with a pressure medium.

[0005] EP2295372B1 discloses a pressure adapter for installing on a beer container comprising an extendable faucet with a CO₂ channel.

[0006] EP2129596B1 discloses a system for dispensing carbonated beverages comprising a bottle and an adapted lid. It is through the inside of the lid that a CO₂ cartridge is connected, thus being housed inside the bottle together with the beverage to be dispensed. This solution has some disadvantages, for example, in order to change the beverage it is necessary to open a bottle and place the adapted lid, leaving the beverage exposed to external contaminants until the adapted lid is screwed on again, or, as the cartridge is in contact with the pressurized liquid, there may be contamination thereby into the beverage when it is replaced. Additionally, the replacement thereof is quite difficult due to the fact that it is on the inside of the lid.

[0007] Document DE102007005104 A1 discloses another device for dispensing a beverage from a keg.

[0008] These facts are described in order to illustrate the technical problem solved by the embodiments of the present document.

GENERAL DESCRIPTION

[0009] It is an object of the present embodiments to provide a lightweight device, preferably made of plastic, for extracting a pressurized liquid. This device must be securely coupled to a container with a liquid, preferably a beer barrel; and still allow the extraction of the liquid in perfect conditions.

[0010] The present embodiments are useful for extracting a pressurized liquid in an easy, practical way and with a quick and simple maintenance, surprisingly allow-

ing the reuse of the device in different beverages and containers.

[0011] The invention relates to a device for extracting a pressurized liquid as set forth in claim 1, and a method for coupling such a device.

[0012] The introduction of the device into the container allows the extraction of the liquid and injection of an extraction gas into the container.

[0013] In an embodiment, the device described in the present disclosure further comprises a pressure regulator for regulating the supply pressure of an extraction gas. In this way, it is possible to control, for example, the foam.

[0014] In an embodiment, the handle comprises a curved latch for connecting with the edge of the container cap, wherein the handle and the curved latch are connected by a pin and spaced apart by a spring.

[0015] In an embodiment, the plastic material of the extractor device is selected from the following list: polyamide, fibered polyamide, polypropylene, polymeric resin, polyoxymethylene, or combinations thereof.

[0016] In an embodiment, the plastic material of the device has a density of 1×10^{-3} to 2×10^{-3} kg/m³ (1 to 2 g/cm³).

[0017] In an embodiment, the material of the tap lever, pin and plunger has a density of 1×10^{-3} to 1.5×10^{-3} kg/m³ (1 to 1.5 g/cm³); preferably about 1.41×10^{-3} kg/m³ (1.41 g/cm³).

[0018] In an embodiment, the material of the handle, latch, base and dispenser has a density of 1×10^{-3} to 1.5×10^{-3} kg/m³ (1 to 1.5 g/cm³); preferably about 1.37×10^{-3} kg/m³ (1.37 g/cm³).

[0019] In an embodiment, the material of the tap has a density of 1×10^{-3} to 1.5×10^{-3} kg/m³ (1 to 1.5 g/cm³); preferably about 1.23×10^{-3} kg/m³ (1.23 g/cm³).

[0020] In an embodiment, the plastic material of the extractor device has a tensile modulus between 2 500 and 10 000 MPa.

[0021] In an embodiment, the dispenser is a type A coupler.

[0022] In an embodiment, the handle comprises a curved latch for connecting with the edge of the container cap, wherein the handle and the curved latch are connected by a pin and spaced apart by a spring.

[0023] In an embodiment, the liquid may be a non-alcoholic beverage such as sparkling water, juice, soda, among others.

[0024] In an embodiment, which comprises a container with the extraction gas; preferably wherein the gas is CO₂, N₂, He, Argon, or combinations thereof.

[0025] In an embodiment, the container with a cap is a barrel, bottle, keg, or carboy, among others.

[0026] In an embodiment, the liquid may be an alcoholic beverage, such as beer, sangria, wine or cider, among others.

[0027] Another aspect concerns a method for coupling the extraction device described in the present disclosure comprising the steps of:

putting the handle in the raised position,
coupling the base to the lid of a container,
lowering the handle with the curved latch open,
inserting part of the dispenser body inside the container cap,
releasing the curved latch by coupling the device to the container with a cap.

[0028] In an embodiment, wherein in the last step a gas pressure regulator is screwed onto the end of the extraction gas source.

[0029] In an embodiment, the dispenser is configured to be adapted to a lid of a plastic container, preferably barrels with a capacity of 2, 3, 5, 7, 10 l of pressurized liquid, more preferably 7 l plastic barrels.

[0030] In an embodiment for better results, the functional principle of the faucet is the displacement of a plunger that with the aid of O-rings seals the liquid exit from the piping. The strength applied by a user on the rotation of the lever and the corresponding rise of the plunger allows the liquid to pass, in the open position, and the mechanical strength of the spring inside applies a counter strength, returning the plunger to its initial closed/sealed position.

[0031] In an embodiment, the handle comprises 3 associated elements: the axis of rotation along which it moves; the associated axis that drives and moves the dispenser in the vertical direction; the associated axis that moves the curved latch coupling or uncoupling the device.

[0032] In an embodiment for better results, when the outlet of the dispenser is arranged horizontally, it allows the system to be both simpler making it possible for domestic use, and more compact, easier to store and handle.

[0033] One of the advantages of the present disclosure is the fact that a reusable dispenser is obtained which maintains the functionality of metal dispensers, with high strength and lower weight.

BRIEF DESCRIPTION OF THE FIGURES

[0034] For an easier understanding, figures are herein attached, which represent preferred embodiments which are not intended to limit the object of the present description.

Figure 1: Schematic representation, in exploded view, of an embodiment of the extraction device.

Figure 2A-2D: Schematic representation of an embodiment of the extraction device with the handle in the raised position and the lever in closed position.

Figure 3A-3D: Schematic representation of an embodiment of the extraction device with the handle in the lowered position for the coupling, the lever in closed position and a CO₂ bottle screwed on.

Figure 4A-B: Schematic representation of an embodiment of the extraction device with the handle in

the coupling position, the lever in open position and a CO₂ bottle screwed on.

Figure 5: Schematic representation, in a side view and longitudinal section, of an embodiment of the extraction device before coupling to a container.

Figure 6: Schematic representation, in a side view and longitudinal section, of an embodiment of the extraction device coupled with the cap of a container, a CO₂ source screwed on and the lever in closed position.

Figure 7: Schematic representation, in a side view and longitudinal section, of an embodiment of the extraction device coupled to a container, with a CO₂ source screwed on and the lever in closed position.

DETAILED DESCRIPTION

[0035] The present description relates to a device for extracting a liquid, in particular a device in plastic adapted to extract a pressurized liquid from a container with a plastic lid.

[0036] In an embodiment, **Figure 1** shows a schematic representation, in exploded view, of an embodiment of the extraction device, wherein: **1** represents a base, **2** represents a dispenser, **3** represents a handle, **4** represents a curved latch, **5** represents a tap **6** represents a plunger, **7** represents a tap lid, **8** represents a tap lever, **9** represents a lever lid, **10** represents a metal pin, **11** represents an 8 mm spring, **12** represents a 21 mm spring, **13** represents a valve for a CO₂ bottle, **14** represents a CO₂ bottle, **15** represents a 40x2 mm O-ring, **16** represents an O-ring connecting to the container lid, **17** represents a 10x2 mm O-ring, **18** represents a 15x2 mm O-ring, **19** represents a static metal pin.

[0037] In an embodiment, the base (1), the dispenser (2), the handle (3) and the curved latch (4) are made of fibered polyamide.

[0038] In an embodiment, the tap (5), the plunger (6), and the lever (8) are made of polypropylene.

[0039] In an embodiment, the tap lid (7) is made of polypropylene, polymeric resin, or mixtures thereof.

[0040] In an embodiment, **Figures 2A-2D** show a schematic representation, in isometric view, in plan view, in longitudinal section, and in isometric view with longitudinal section, of an embodiment of the extraction device with the handle in the uncoupled position and closed lever. Wherein **3** represents a handle, **5** represents a lever lid, **13** represents a valve for a CO₂ bottle, **20** represents a handle arm, **22** represents an end of the handle arms, and **24** represents a chamber.

[0041] In an embodiment, **Figures 3A-3D** show a schematic representation, in isometric view, in plan view, in longitudinal section, and in isometric view with longitudinal section, of an embodiment of the extraction device with the handle in the coupling position, closed lever and a CO₂ bottle screwed on.

[0042] In an embodiment, **Figures 4A-B** show a schematic representation, in longitudinal section, and in iso-

metric view with longitudinal section, of an embodiment of the extraction device with the handle in the coupling position, open lever and a CO₂ bottle screwed on.

[0043] In an embodiment, **Figure 5** shows a schematic representation, in a side view and longitudinal section, of an embodiment of the extraction device before coupling to a container. Wherein **26** represents an extractor tube.

[0044] In an embodiment, **Figure 6** shows a schematic representation, in a side view and longitudinal section, of an embodiment of the extraction device coupled with the lid of a container, a CO₂ source screwed on and closed lever.

[0045] In an embodiment, **Figure 7** shows a schematic representation, in a side view and longitudinal section, of an embodiment of the extraction device coupled to a container, with a CO₂ source screwed on and closed lever.

[0046] The term "comprises" or "comprising" whenever used herein is intended to indicate the presence of stated features, elements, integers, steps and components, but not to preclude the presence or addition of one or more other features, elements, integers, steps and components, or groups thereof.

[0047] The present invention is of course in no way restricted to the embodiments described herein and a person with ordinary skills in the art may foresee many possibilities of modifications thereof and replacing technical features with equivalent ones, depending on the requirements of each situation, as defined in the appended claims.

[0048] The following claims define further embodiments of the present description.

Claims

1. Plastic extraction device for extracting a pressurized liquid from a container having a cap, **characterized in that** it comprises:

a dispenser (2);
a base (1) configured to fit into the cap and couple to the dispenser (2);
wherein the dispenser (2) comprises:

a tap (5);
a gas inlet valve (13),
an inner chamber (24) configured to inject an extraction gas into the container having a cap,
an inner channel configured to direct the extracted pressurized liquid to a horizontal outlet connected to the tap (5),
wherein the tap (5) is controlled by a lever (8) through a plunger (6) configured to regulate the extraction of the pressurized liquid,

a handle (3) comprising two arms (20), for coupling the plastic device to the cap, the handle being connected to the base (1) by means of the two arms (20), and to the dispenser (2) by means of a sliding connection,
wherein the two arms (20) are configured to pivot around the base (1),

wherein the sliding connection is configured to move vertically in the base (1) so as to promote the coupling of the dispenser (2) into the container.

2. Extraction device according to the preceding claim wherein the plastic material of the device has a density of between $1 \times 10^{-3} \text{ kg/m}^3$ (1 g/cm³) and $2 \times 10^{-3} \text{ kg/m}^3$ (2 g/cm³).

3. Extraction device according to the preceding claim wherein

the material of the tap lever, pin and plunger has a density of 1×10^{-3} to $1.5 \times 10^{-3} \text{ kg/m}^3$ (1 to 1.5 g/cm³); preferably about $1.41 \times 10^{-3} \text{ kg/m}^3$ (1.41 g/cm³); and/or

the material of the handle, latch, base and dispenser has a density of 1×10^{-3} to $1.5 \times 10^{-3} \text{ kg/m}^3$ (1 to 1.5 g/cm³); preferably about $1.37 \times 10^{-3} \text{ kg/m}^3$ (1.41 g/cm³); and/or

the material of the tap has a density of 1×10^{-3} to $1.5 \times 10^{-3} \text{ kg/m}^3$ (1 to 1.5 g/cm³); preferably about $1.23 \times 10^{-3} \text{ kg/m}^3$ (1.41 g/cm³);

4. Extraction device according to any one of the preceding claims wherein the plastic material of the extractor device is selected from the following list: polyamide, fibered polyamide, polypropylene, polymeric resin, polyoxymethylene, or combinations thereof.

5. Extraction device according to any one of the preceding claims wherein the dispenser is a type A coupler.

6. Extraction device according to any one of the preceding claims wherein the handle (3) comprises a curved latch (4) for connecting with the edge of the container cap, wherein the handle (3) and the curved latch (4) are connected, preferably by a pin (19), and spaced apart by a spring (11).

7. Extraction device according to claim 6 wherein the base (1), the dispenser (2), the handle (3) and the curved latch (4) are made of fibered polyamide.

8. Extraction device according to any one of the preceding claims wherein the plastic material of the extractor device has a tensile modulus between 2 500 and 10 000 MPa.

9. Extraction device according to any one of the preceding claims wherein the tap (5), the plunger (6) and the lever (8) are made of polypropylene.
10. Extraction device according to any one of the preceding claims wherein the container having a cap is a barrel, bottle, keg, or carboy. 5
11. Extraction device according to any one of the preceding claims comprising a container with the extraction gas; preferably wherein the gas is CO₂, N₂, He, Argon, or combinations thereof. 10
12. Extraction device according to any one of the preceding claims wherein the pressurized liquid is a beverage such as sparkling water, juice, soda, beer, sangria, wine, or cider. 15
13. Assembly for extracting a pressurized liquid comprising the extraction device described in any one of claims 1-12, an extractor tube (26), and a container having a cap and a pressurized liquid. 20
14. Assembly for extracting a pressurized liquid according to the preceding claim comprising a support platform for the container having a cap. 25
15. Method for coupling the extraction device as claimed in any one of claims 1-12, **characterized in that** it comprises the steps of: 30
- putting the handle (3) in a raised position, coupling the base (1) to a container cap, lowering the handle (3) with the curved latch (4) open, 35
- inserting part of the dispenser body (2) inside the container cap, releasing the curved latch (4) by coupling the device to the container having a cap. 40

Patentansprüche

1. Entnahmevorrichtung aus Kunststoff zum Extrahieren einer unter Druck stehenden Flüssigkeit aus einem Behälter mit einem Deckel, **dadurch gekennzeichnet, dass** sie umfasst: 45
- einen Dispenser (2);
eine Basis (1), die so konfiguriert ist, dass sie in den Deckel passt und mit dem Dispenser (2) verbunden ist;
wobei der Dispenser (2) umfasst:
- einen Hahn (5); 55
ein Gaseinlassventil (13),
eine innere Kammer (24), die so konfiguriert ist, dass sie ein Extraktionsgas in den Be-

hälter mit einem Deckel einspeist, einen inneren Kanal, der so konfiguriert ist, dass er die unter Druck stehende entnommene Flüssigkeit zu einem waagrechten Auslass leitet, der mit dem Hahn (5) verbunden ist, wobei der Hahn (5) durch einen Hebel (8) über einen Kolben (6) gesteuert wird, der so konfiguriert ist, dass er die Entnahme der unter Druck stehenden Flüssigkeit reguliert,

einen Griff (3), umfassend zwei Arme (20), um die Kunststoffvorrichtung mit dem Deckel zu verbinden, wobei der Griff über die beiden Arme (20) mit der Basis (1) und mit dem Dispenser (2) über eine verschiebbare Verbindung verbunden ist, wobei die beiden Arme (20) so konfiguriert sind, dass sie um die Basis (1) schwenken,

wobei die verschiebbare Verbindung so konfiguriert ist, dass sie sich vertikal in der Basis (1) bewegt, um das Einkuppeln des Dispensers (2) in den Behälter zu unterstützen.

2. Entnahmevorrichtung nach dem vorangehenden Anspruch, wobei das Kunststoffmaterial der Vorrichtung eine Dichte zwischen $1 \times 10^{-3} \text{ kg/m}^3$ (1 g/cm³) und $2 \times 10^{-3} \text{ kg/m}^3$ (2 g/cm³) hat.

3. Entnahmevorrichtung nach dem vorangehenden Anspruch, wobei

das Material des Hahnhebels, des Stifts und des Kolbens eine Dichte von 1×10^{-3} bis $1,5 \times 10^{-3} \text{ kg/m}^3$ (1 to 1,5 g/cm³) hat; bevorzugt etwa $1,41 \times 10^{-3} \text{ kg/m}^3$ (1,41 g/cm³); und/oder das Material des Griffs, des Verschlusses, der Basis und des Dispensers eine Dichte von 1×10^{-3} bis $1,5 \times 10^{-3} \text{ kg/m}^3$ (1 bis 1,5 g/cm³) hat; bevorzugt etwa $1,37 \times 10^{-3} \text{ kg/m}^3$ (1,41 g/cm³); und/oder das Material des Hahns eine Dichte von 1×10^{-3} bis $1,5 \times 10^{-3} \text{ kg/m}^3$ (1 bis 1,5 g/cm³) hat; bevorzugt etwa $1,23 \times 10^{-3} \text{ kg/m}^3$ (1,41 g/cm³).

4. Entnahmevorrichtung nach einem der vorangehenden Ansprüche, wobei das Kunststoffmaterial der Entnahmevorrichtung aus der folgenden Liste ausgewählt wird: Polyamid, glasfaserverstärktes Polyamid, Polypropylen, Polymerharz, Polyoxymethylen oder Kombinationen davon.
5. Entnahmevorrichtung nach einem der vorangehenden Ansprüche, wobei der Dispenser eine Kupplung Typ A ist.
6. Entnahmevorrichtung nach einem der vorangehen-

den Ansprüche, wobei der Griff (3) einen gebogenen Riegel (4) zum Verbinden mit dem Rand des Behälterdeckels umfasst, wobei der Griff (3) und der gebogene Riegel (4), bevorzugt durch einen Stift (19), verbunden und durch eine Feder (11) beabstandet sind.

7. Entnahmevorrichtung nach Anspruch 6, wobei die Basis (1), der Dispenser (2), der Griff (3) und der gebogene Riegel (4) aus faserverstärktem Polyamid hergestellt sind. 5
8. Entnahmevorrichtung nach einem der vorangehenden Ansprüche, wobei das Kunststoffmaterial der Entnahmevorrichtung einen Zugmodul zwischen 2500 und 10000 MPa hat. 15
9. Entnahmevorrichtung nach einem der vorangehenden Ansprüche, wobei der Hahn (5), der Kolben (6) und der Hebel (8) aus Polypropylen hergestellt sind. 20
10. Entnahmevorrichtung nach einem der vorangehenden Ansprüche, wobei der Behälter mit einem Deckel eine Tonne, eine Flasche, ein Fass oder eine Ballonflasche ist. 25
11. Entnahmevorrichtung nach einem der vorangehenden Ansprüche, umfassend einen Behälter mit dem Extraktionsgas, wobei das Gas bevorzugt CO₂, N₂, He, Argon oder Kombinationen davon ist. 30
12. Entnahmevorrichtung nach einem der vorangehenden Ansprüche, wobei die unter Druck stehende Flüssigkeit ein Getränk wie Sprudelwasser, Saft, Limonade, Bier, Sangria, Wein oder Apfelwein ist. 35
13. Anordnung zur Entnahme einer unter Druck stehenden Flüssigkeit, umfassend die in einem der Ansprüche 1-12 beschriebene Entnahmevorrichtung, ein Entnahmerohr (26) und einen Behälter mit einem Deckel und einer unter Druck stehenden Flüssigkeit. 40
14. Vorrichtung zur Entnahme einer unter Druck stehenden Flüssigkeit nach dem vorangehenden Anspruch, umfassend eine Trägerplattform für den Behälter mit einem Deckel. 45
15. Verfahren zum Ankoppeln der Entnahmevorrichtung nach einem der Ansprüche 1-12, **dadurch gekennzeichnet, dass** es die folgenden Schritte umfasst: 50
 - Verbringen des Griffs (3) in eine angehobene Position,
 - Ankoppeln der Basis (1) an einen Behälterdeckel,
 - Absenken des Griffs (3) bei geöffnetem gebogenen Riegel (4),
 - Einsetzen eines Teils des Dispensergehäuses

(2) in den Behälterdeckel,
Lösen des gebogenen Riegels (4) durch Ankoppeln der Vorrichtung an den mit einem Deckel versehenen Behälter.

Revendications

1. Dispositif d'extraction en plastique pour extraire un liquide sous pression d'un récipient ayant un bouchon, **caractérisé en ce qu'il** comprend :

un distributeur (2) ;
une base (1), configurée pour s'adapter au bouchon et s'accoupler au distributeur (2) ;
dans lequel le distributeur (2) comprend :

un robinet (5) ;
une valve d'entrée de gaz (13) ;
une chambre interne (24) configurée pour injecter un gaz d'extraction dans le récipient ayant un bouchon ;
un canal interne configurée pour guider le liquide sous pression extrait vers une sortie horizontale raccordée au robinet (5) ;
dans lequel le robinet (5) est contrôlé par un levier (8) à travers un piston (6) configuré pour réguler l'extraction du liquide sous pression,

une poignée (3) comprenant deux bras (20), pour accoupler le dispositif en plastique au bouchon, la poignée étant raccordée à la base (1) à travers les deux bras (20), et au distributeur (2) à travers un raccord coulissant,
dans lequel les deux bras (20) sont configurés pour pivoter autour de la base (1),

dans lequel le raccord coulissant est configuré pour se déplacer verticalement sur la base (1) afin de promouvoir l'accouplement du distributeur (2) dans le récipient.

2. Dispositif d'extraction selon la revendication précédente dans lequel le matériau en plastique du dispositif a une densité située entre $1 \times 10^{-3} \text{ kg/m}^3$ (1 g/cm³) et $2 \times 10^{-3} \text{ kg/m}^3$ (2 g/cm³).

3. Dispositif d'extraction selon la revendication précédente dans lequel

le matériau du levier de robinet, de la broche et du piston a une densité de 1×10^{-3} à $1,5 \times 10^{-3} \text{ kg/m}^3$ (1 à 1,5 g/cm³) ; préférentiellement d'environ $1,41 \times 10^{-3} \text{ kg/m}^3$ (1,41 g/cm³) ; et/ou le matériau de la poignée, du loquet, de la base et du distributeur a une densité de 1×10^{-3} à

- 1,5 × 10⁻³ kg/m³ (1 à 1,5 g/cm³) ; préférablement d'environ 1,37 × 10⁻³ kg/m³ (1,41 g/cm³) ; et/ou le matériau du robinet a une densité de 1 × 10⁻³ à 1,5 × 10⁻³ kg/m³ (1 à 1,5 g/cm³) ; préférablement d'environ 1,23 × 10⁻³ kg/m³ (1,41 g/cm³). 5
4. Dispositif d'extraction selon l'une quelconque des revendications précédentes dans lequel le matériau en plastique du dispositif extracteur est choisi parmi la liste suivante : polyamide, polyamide à fibres, polypropylène, résine polymère, polyoxyméthylène, ou des combinaisons de ceux-ci. 10
5. Dispositif d'extraction selon l'une quelconque des revendications précédentes dans lequel le distributeur est un coupleur de type A. 15
6. Dispositif d'extraction selon l'une quelconque des revendications précédentes dans lequel la poignée (3) comprend un loquet courbé (4) pour raccorder au bord du bouchon du récipient, dans lequel la poignée (3) et le loquet courbé (4) sont raccordés, préférablement par une broche (19), et espacés les uns des autres par un ressort (11). 20 25
7. Dispositif d'extraction selon la revendication 6 dans lequel la base (1), le distributeur (2), la poignée (3) et le loquet courbé (4) sont faits de polyamide à fibres. 30
8. Dispositif d'extraction selon l'une quelconque des revendications précédentes dans lequel le matériau en plastique du dispositif extracteur a un module de traction situé entre 2500 et 10 000 MPa. 35
9. Dispositif d'extraction selon l'une quelconque des revendications précédentes dans lequel le robinet (5), le piston (6) et le levier (8) sont faits en polypropylène. 40
10. Dispositif d'extraction selon l'une quelconque des revendications précédentes dans lequel le récipient ayant un bouchon est un baril, une bouteille, un fût, ou une tourie. 45
11. Dispositif d'extraction selon l'une quelconque des revendications précédentes comprenant un récipient avec le gaz d'extraction ; préférablement dans lequel le gaz est du CO₂, N₂, He, de l'Argon, ou des combinaisons de ceux-ci. 50
12. Dispositif d'extraction selon l'une quelconque des revendications précédentes dans lequel le liquide sous pression est une boisson telle que de l'eau gazeuse, du jus, du soda, de la bière, de la sangria, du vin ou du cidre. 55
13. Ensemble pour extraire un liquide sous pression comprenant le dispositif d'extraction décrit dans l'une quelconque des revendications 1-12, un tube extracteur (26), et un récipient ayant un bouchon et un liquide sous pression.
14. Ensemble pour extraire un liquide sous pression selon la revendication précédente comprenant une plateforme porteuse pour le récipient ayant un bouchon.
15. Procédé pour accoupler le dispositif d'extraction tel que revendiqué dans l'une quelconque des revendications 1-12, **caractérisé en ce qu'il** comprend les étapes consistant à :
- mettre la poignée (3) en position élevée, accoupler la base (1) à un bouchon de récipient, baisser la poignée (3) avec le loquet courbé (4) ouvert, insérer une partie du corps du distributeur (2) à l'intérieur du bouchon de récipient, libérer le loquet courbé (4) en accouplant le dispositif au récipient ayant un bouchon.

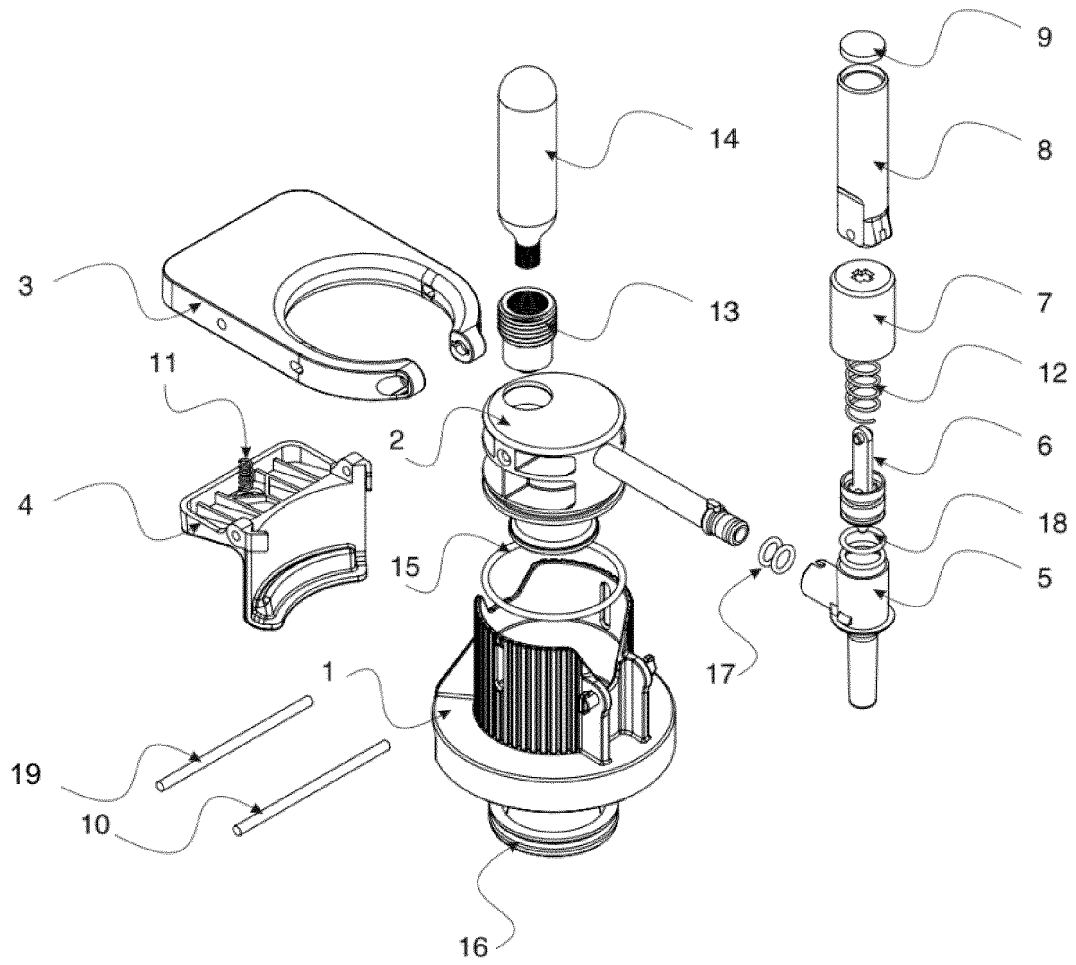


Fig. 1

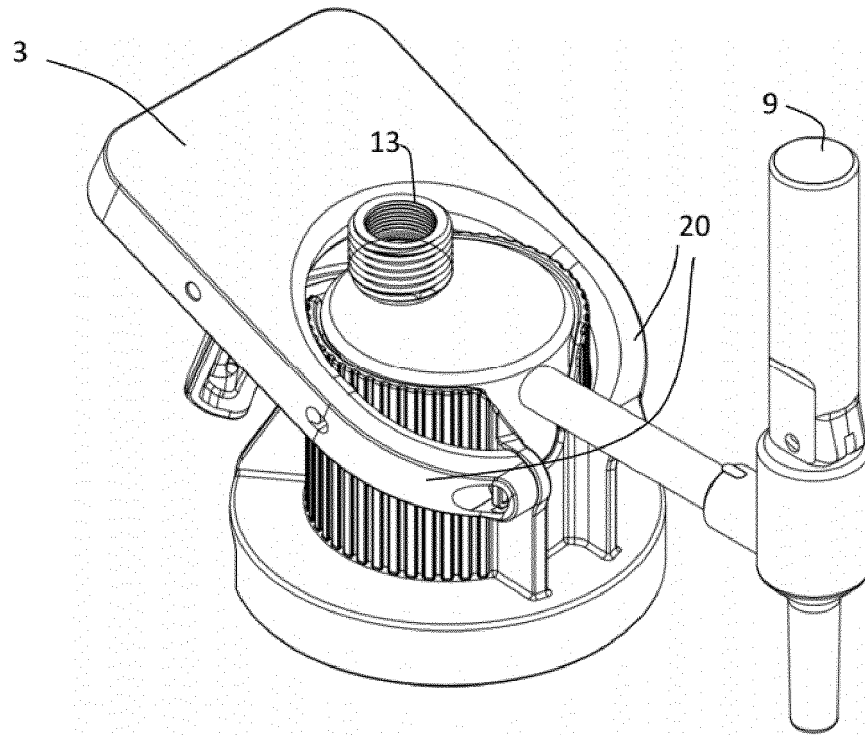


Fig. 2A

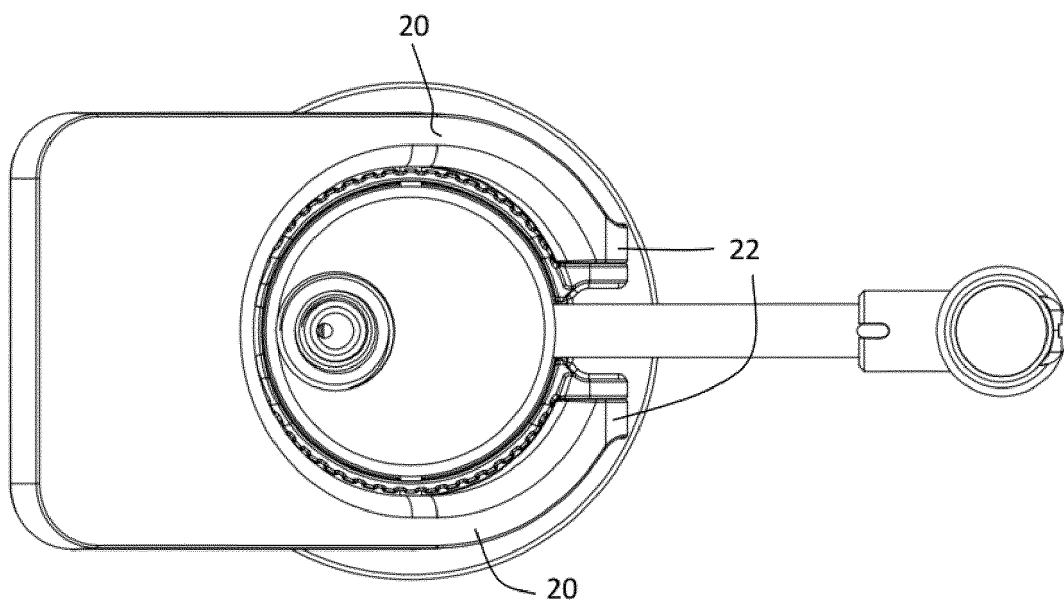


Fig. 2B

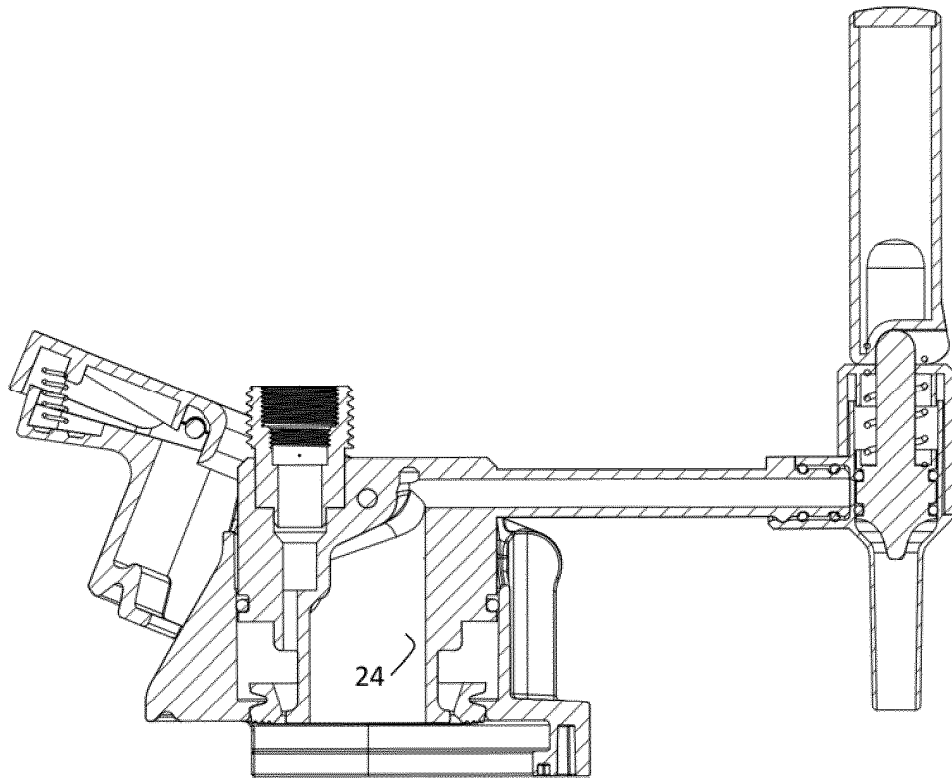


Fig. 2C

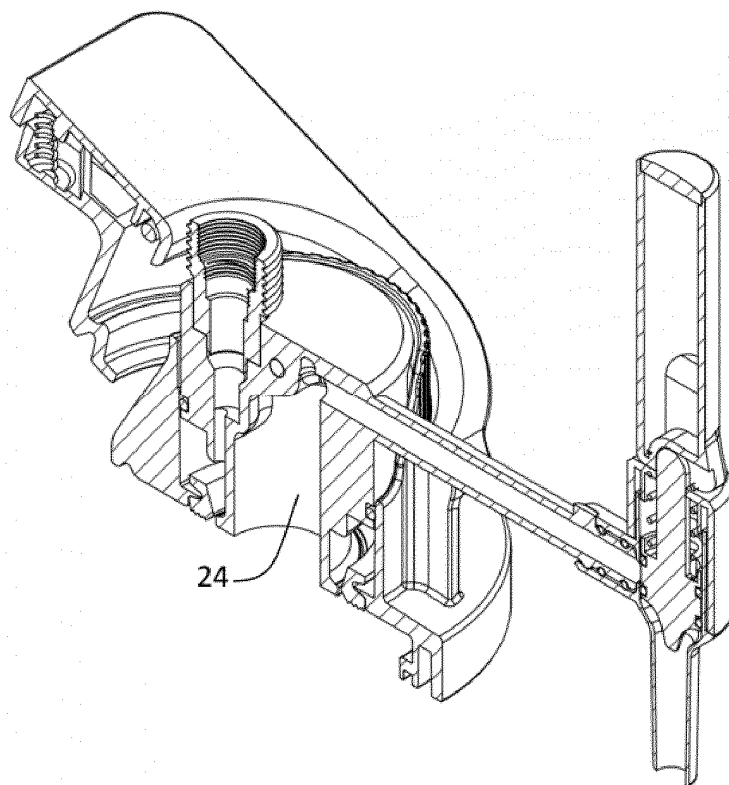


Fig. 2D

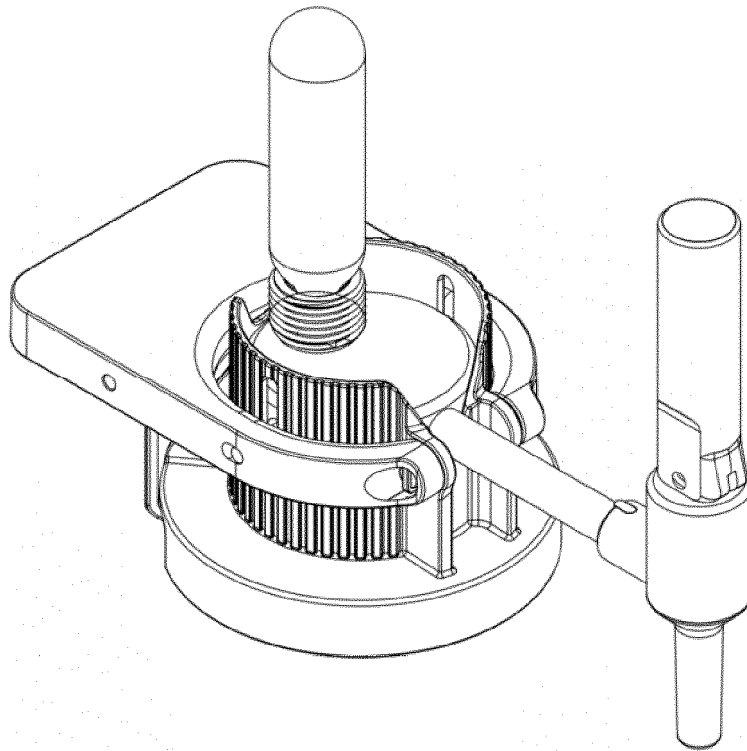


Fig. 3A

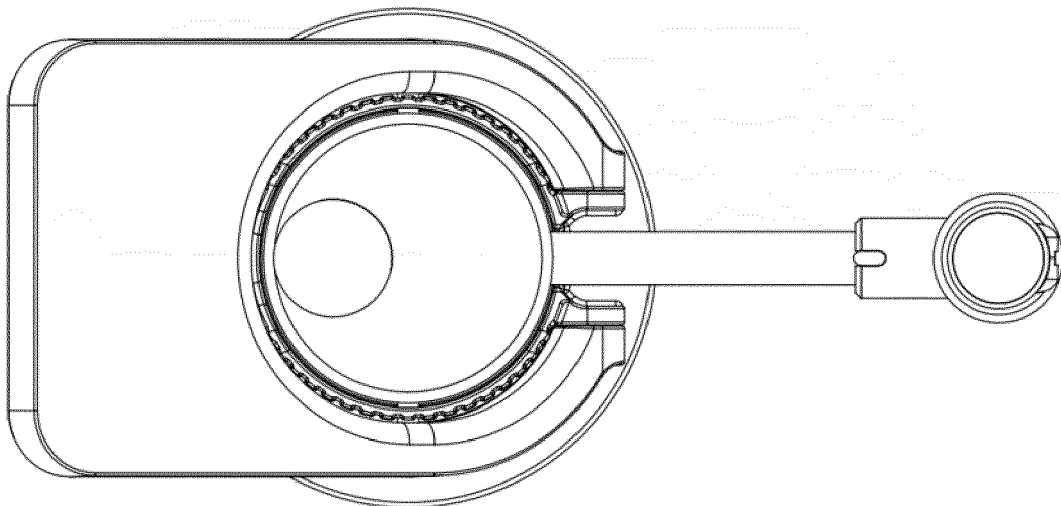


Fig. 3B

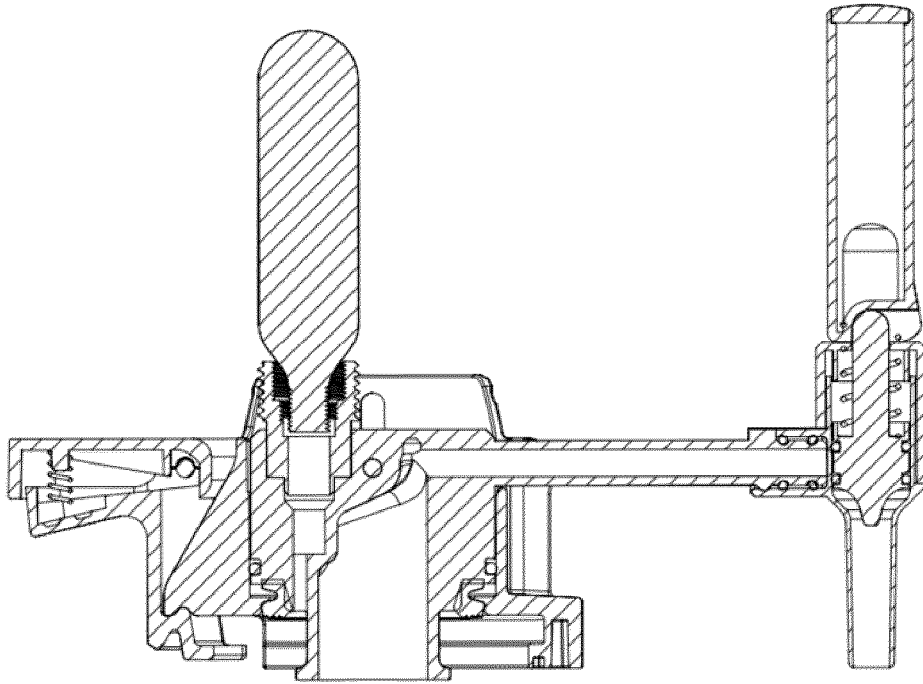


Fig. 3C

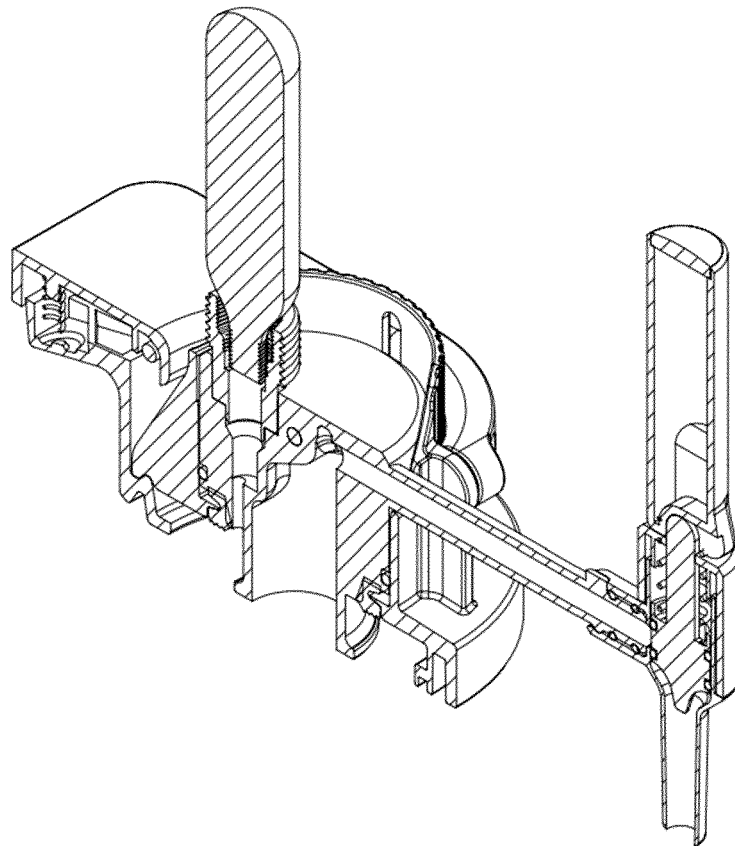


Fig. 3D

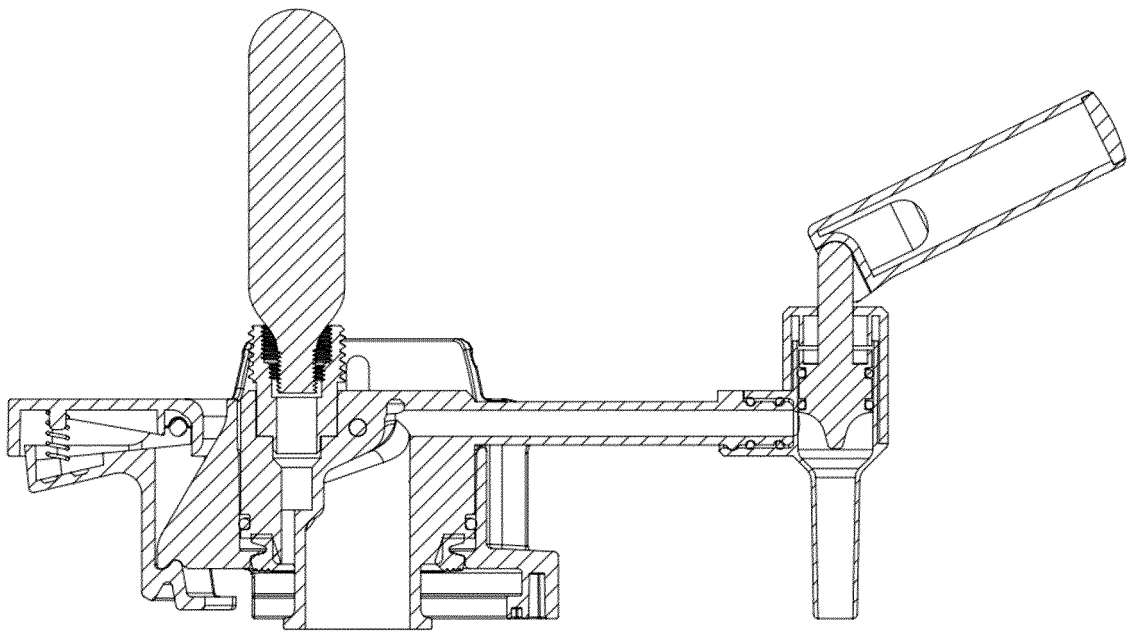


Fig. 4A

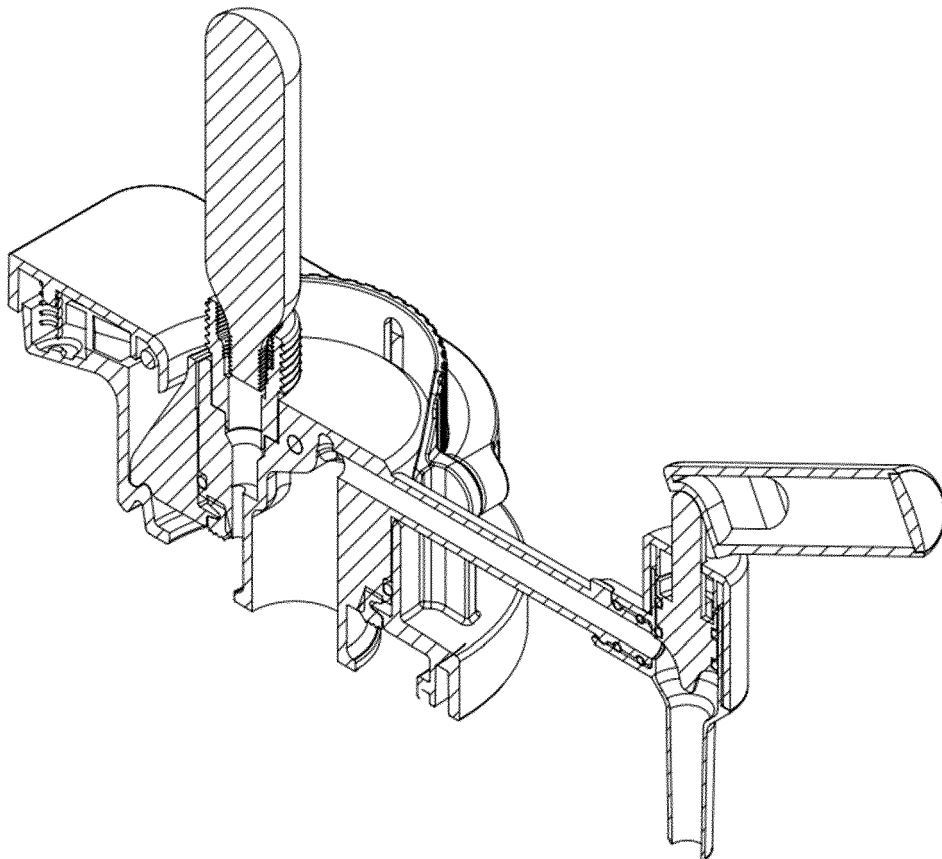


Fig. 4B

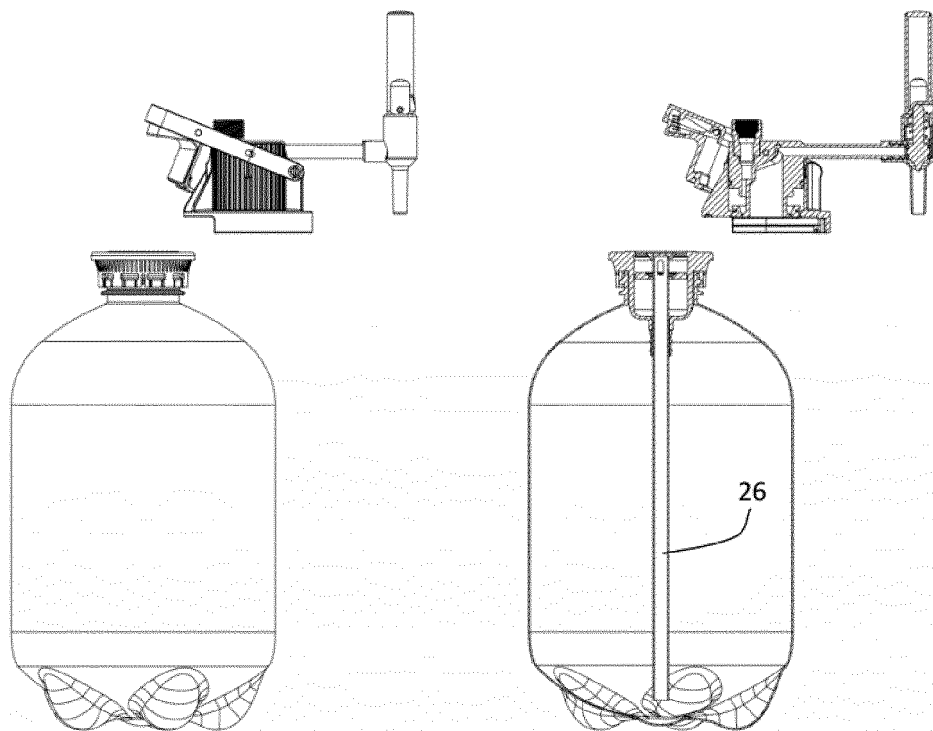


Fig. 5

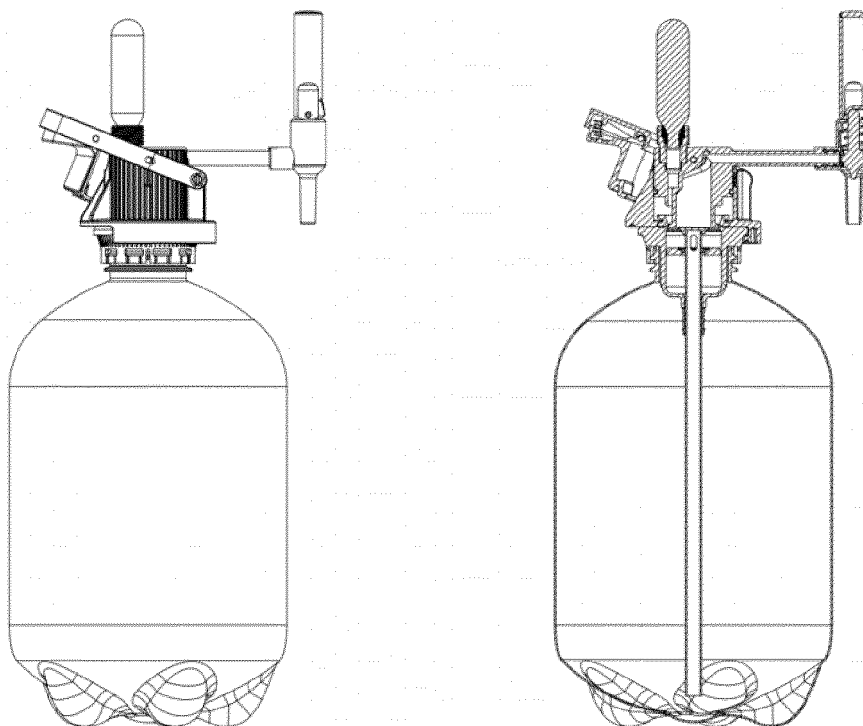


Fig. 6

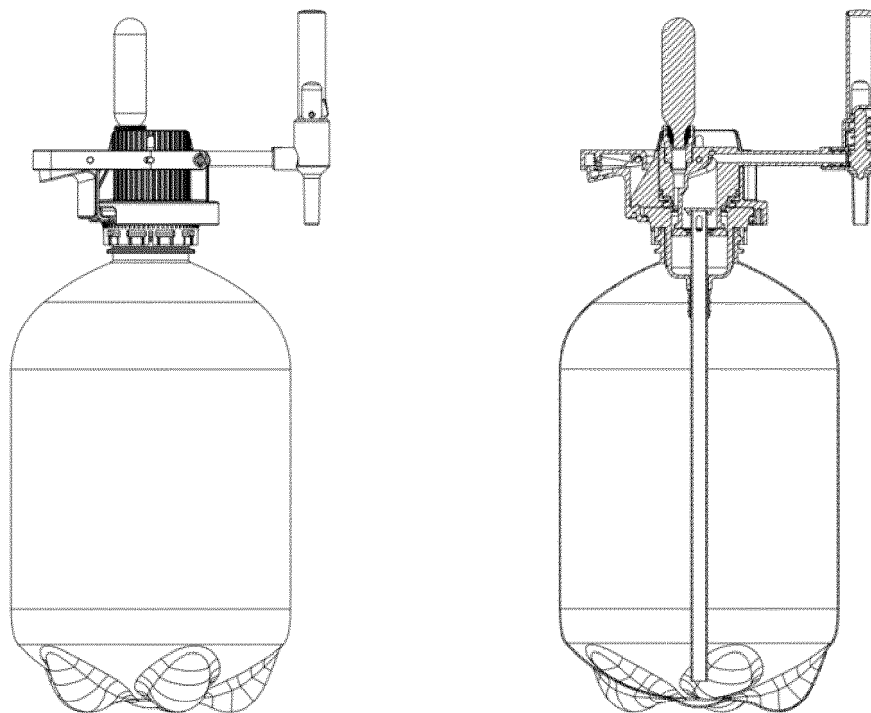


Fig. 7

REFERENCES CITED IN THE DESCRIPTION

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