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A DRINKS CONTAINER

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ABSTRACT

A drinks container comprising a container body having a side wall terminating in a rim forming an open top, and an adapter mounted on the container body. The adapter is interchangeable between a first upright configuration where it forms a central primary, and a second inverted configuration in which the adapter forms a secondary outlet adjacent the rim of the container for enabling a user to sip a drink from the rim of the container. The adapter comprises a cut out formation on a circumference of the adapter that forms an opening between the adapter and the container body in the second configuration through which liquid can flow out of the container body. The drinks container may further include a strap mounted on the container body that is releasably mountable to the closure for tethering the closure to the container body so that it is not physically separated from the container during use and is therefore not prone to getting lost.

Figure 9 for publication

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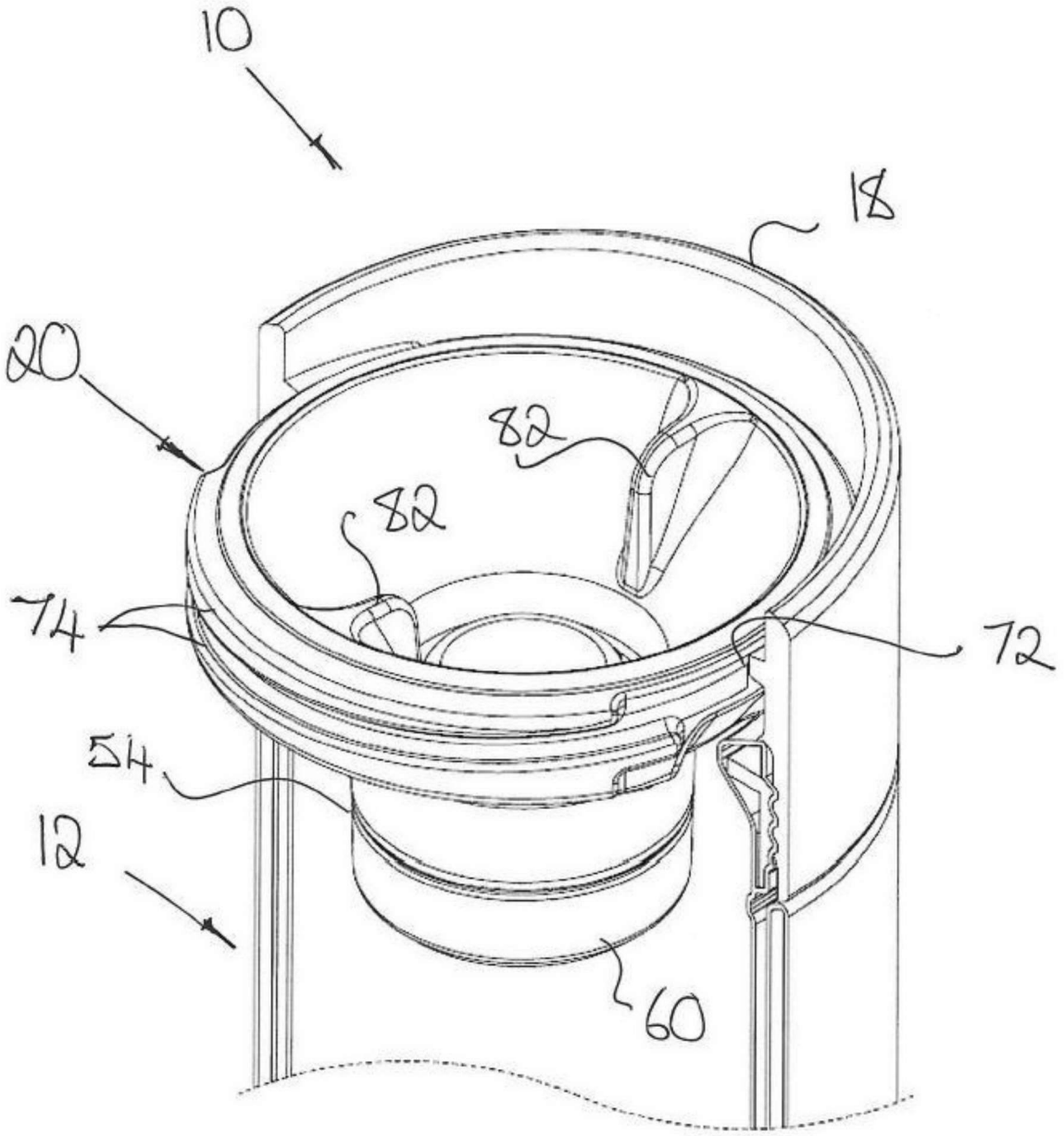

Figure 9

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A DRINKS CONTAINER

FIELD

This invention relates to a drinks container.

This invention relates particularly, but not exclusively, to a drinks container suitable for use as an exercise bottle when a user is exercising. It will be convenient to hereinafter describe the invention with reference to this example application. However, it is to be understood that the invention is capable of broader application.

DEFINITION

In this specification, the term 'comprising' is intended to denote the inclusion of a stated integer or integers, but not necessarily the exclusion of any other integer, depending on the context in which that term is used. This applies also to variants of that term such as 'comprise' or 'comprises'.

In this specification and claims, the term 'shoulder' is to be interpreted broadly and in particular, it shall not be limited to any particular geometrical configuration.

BACKGROUND

An exercise bottle that is used when exercising is a well-known contrivance. As the fitness craze has developed, more and more people are involved in regular exercise and thus it is quite common for people to carry an exercise bottle around with them.

One such example of an exercise bottle is shown in Figure 1. The exercise bottle comprises a cylindrical container body that tapers inwardly to a neck forming an open top that can be closed by a closure. In use, the closure can be removed by a user to enable them to drink liquid from the bottle. A user may tend to gulp in large amounts of liquid from the exercise bottle in a short space of time. Thus, the exercise bottle has a large central opening over which a user can place their mouth and draw in large amounts of liquid with each gulp. While it is common for an exercise bottle to contain water, it can also contain other drinks, including sports drinks designed to rehydrate a person after physical exercise, energy drinks or soft drinks.

Another activity that has increased in recent years is the purchase of takeaway coffee in which a coffee cup is filled by a coffee vendor and then taken away by a user. In relation

to certain products, such as Starbucks™ coffees, this practice has assumed a cult-like status. Very often, hundreds of people can be seen walking through a city carrying their takeaway coffee cup in their hand.

Traditionally, single use drink containers made of cardboard or like products have been used as containers for takeaway coffee. However, with the growing emphasis on sustainable living, there is an impetus to reuse items like cups and this has led to a rise in reusable coffee cups. These cups are carried around by a user and the same cup is reused each time they make or purchase a cup of coffee.

Any reference to prior art in the background above is not and should not be taken as an acknowledgement or any form of suggestion that the referenced prior art forms part of the common general knowledge in Australia or in any other country.

SUMMARY OF THE INVENTION

Applicant recognizes the prevalence of and widespread use of exercise bottles and reusable coffee cups. Applicant further recognizes that it would be beneficial to improve on these products.

In one form, the invention relates to a drinks container that is interchangeable between use as an exercise bottle and use as a cup for drinking from, e.g. for sipping a drink from a rim of the cup. This obviates the need to have two containers to perform this function and a single container is more convenient for a user to carry around.

According to an aspect of the invention there is provided a drinks container comprising:

a container body having a side wall terminating in a rim forming an open top, and

an adapter mounted on the container body and extending across the top, wherein the adapter is interchangeable between a first upright configuration where it forms a central primary outlet which can be opened by a user to drink liquid from the container, and a second inverted configuration in which the adapter forms a secondary outlet adjacent the rim of the container through which liquid can be passed for enabling a user to drink the liquid from the rim of the container.

The adapter may comprise a base section that is configured to complement the container body, and a primary closure section within which the central primary outlet is formed that is smaller than the base section and is axially spaced from the base section.

The primary closure section may project axially outward of the rim of the container body

in the first configuration, and the base section of the adapter may be received within the container body in the first configuration.

In the second configuration, the base section of the adapter may be positioned adjacent the rim and the primary closure section may be received within the container body spaced axially inward of the rim.

The adapter may further include a frusto-conical section intermediate the base and primary closure sections.

In the first configuration, the base section and frusto-conical section of the adapter form a shoulder and neck of the drinks container. In the second configuration, the base section and frusto-conical section of the adapter are received below the rim of the container and are not visible when the drinks container is viewed in a side view.

The drinks container may further include complementary engagement formations on the container body and the adapter respectively, for releasably mounting the adapter on the container body in each of the first and second configurations.

The container body and the adapter may be configured to be rotatable to each other, and the complementary engagement formations on the container body and the adapter may be configured such that they engage by means of a rotation of the adapter relative to the container body when the adapter is placed in the first or second configurations.

The complementary engagement formations on respectively the container body and the adapter may be configured such that the same engagement formations are used to mount the adapter on the container body in both the first and second configurations. That is, the same engagement formations are used for both first and second configurations.

The complementary engagement formations may comprise a male formation on the container body and a female formation on the adapter within which the male formation is received and within which the male formation is translationally displaced when the adapter is moved into the first or second configurations.

The adapter may comprise an outlet formation on its perimeter forming the secondary outlet that opens into the container body when the adapter is in the second configuration and permits liquid to flow out of the container body and over the rim.

The outlet formation may comprise a cut out on a circumference of the adapter that forms

an opening between the adapter and the container body through which liquid can flow out of the container body.

The adapter may have a complementary sealing formation for sealing the adapter against the shoulder on the side wall in the first configuration to resist the passage of liquid between the shoulder and the adapter.

The adapter may have a further complementary sealing formation for sealing a part of the adapter against the shoulder on the side wall in the second configuration.

The cut-out formation which forms the opening between the adapter and the shoulder may interrupt the further complementary sealing formation sealing the adapter to the shoulder around the circumference of the adapter in the second configuration. Thus, the complementary sealing formation that seals the adapter to the shoulder in the second configuration only extends around a part of the adapter.

The rim of the container body may extend at an acute angle to the longitudinal axis of the container body and form a pinnacle on the rim that extends proud of a remainder of the rim. The acute angle may be 70 to 85 degrees to the longitudinal axis.

The pinnacle may be axially aligned with the cut out on the adapter forming the secondary outlet.

This provides a natural point on the rim at which a user sips a drink from the container, which may be referred to as a sipping indicator, and it aligns the pinnacle with the cut out forming the secondary outlet.

The male formation on the container body may define at least one interruption or gap therein around the circumference of the container body that is axially aligned with the cut out in the adapter when the adapter is in the second configuration for enabling liquid flowing out through the secondary outlet to flow past the male formation over the container body and out through the outlet.

The gap in the male formation may also be aligned with the pinnacle of the container body.

The female formation on the adapter may define at least one interruption or gap therein that is positioned in axial alignment with the cut out for enabling liquid to flow past the female formation and out through the secondary outlet.

The adapter may include a further cut out which forms a further opening between the adapter and the shoulder on the container body. The adapter and the container body may be configured so each cut out is in fluid communication with an interior space of the container body.

The one and further cuts outs may be diametrically opposite each other on the adapter, e.g. on a circumference of the adapter.

The container body may include a shoulder that projects radially inward from the side wall, and the one and further complementary sealing formations may seal at least a part of the adapter to the shoulder in respectively the first and second configurations.

The male formation on the container body may comprise first and second male formation sections on diametrically opposed positions on the container body. The two spaced male formation sections firmly mount the adapter on the container body such that it cannot lift up off the container body.

The first male formation section may comprise two short elements spaced from each other that define a gap in the male formation, wherein the gap is aligned with the secondary outlet in the second configuration.

The second male formation section may comprise one continuous section that resembles an arc of a circle.

The drinks container may further include a primary closure removably mounted over the central primary outlet.

The primary closure may have a bayonet type formation for removably mounting the closure on the primary outlet.

Further, the container body may comprise a first and second container element, wherein the second container element is removably mounted on the first container element in a nested configuration, and the second container element is able to be removed from the first container element by an axial sliding action.

The first and second container elements provide two drinks holding containers.

The drinks container may include a securing arrangement for releasably holding the second container element in position on the first container element.

The securing arrangement may comprise a magnet that holds the second container

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element on the first container element.

The magnet may be mounted on a base of the first or second container element and a magnet attracting material may be in the base of the other of the first or second container element.

Instead, the second container element may be held on the first container element by means of a frictional grip.

The container body may be substantially circular cylindrical, and the adapter may have a complementary circular cross section.

According to another aspect of the invention there is provided a drinks container comprising:

a container body comprising a side wall terminating in a rim forming an open top,

an adapter mounted on the container body and extending across the top, wherein the adapter is interchangeable between a first upright configuration where it forms a central primary outlet which can be opened by a user to drink liquid from the container, and a second inverted configuration in which the adapter forms a secondary outlet adjacent the rim of the container through which liquid can be passed for enabling a user to drink the liquid from the rim of the container,

a closure removably mounted over the central primary outlet; and

a strap mounted on the container body that is releasably attachable to the closure for tethering the closure to the container body.

The strap may be releasably mounted on the container body, and the container body may comprise a strap bracket on the side wall of the container body. The strap bracket and the container body may form a strap opening through which the strap is passed in use.

The strap bracket may project out from an outer surface of the container body.

The strap may comprise an elongate strap body having a closure retainer at or towards one end of the strap, and a stop formation at or towards the other end of the strap.

The closure retainer may comprise a mounting loop that extends circumferentially around the closure to mount the mounting loop to the closure.

The mounting loop may be stretched to pull it over an axial end of the closure, whereby to mount the closure on the strap.

The mounting loop may be made of a resilient material that can be stretched outward to mount the mounting loop on the closure extending circumferentially around the closure. When the mounting loop is in this position and is released, the mounting loop contracts radially inwardly and grips the closure with a frictional grip.

The resilient material of the mounting loop may be selected so that the mounting loop is capable of being manually deformed such that it can be displaced through the strap opening in the strap bracket.

The mounting loop may also be sized and configured to assist it to be deformed and pulled through the strap opening formed by the strap bracket.

The closure may have a circumferential groove formed therein, and the mounting loop may be received within the groove, e.g. under some stretch tension, when the strap is mounted to the closure, to thereby securely mounting the closure to the strap.

The stop formation on the strap body may be configured and dimensioned to resist it being drawn through the strap bracket. For example, the stop formation on the strap may be configured with a thickness that resists it being drawn through the strap bracket.

The strap body may have two major surfaces and the stop formation may have a height or thickness projecting outward from one major surface, and a stiffness or rigidity, that resists it being pulled through the strap bracket.

Therefore, when the strap body is passed through the strap bracket and the mounting loop is mounted over the closure of a drinks container, both the closure and the strap are effectively tethered to the drinks container.

The strap including the mounting loop and the stop formation may be integrally formed from a polymeric material in an injection moulding operation. Conveniently, the polymeric material may be silicone.

In addition to being resiliently extensible, the strap material may be capable of flexing so that the strap body can bend easily.

The strap body may be dimensioned to be received within the strap bracket on the container body with a working clearance. In particular, the major surfaces of the strap body may have a width that is dimensioned to be received within the strap bracket with a working clearance. Similarly, the thickness of the strap body may be dimensioned to be received within the strap bracket with a working clearance. This enables the strap to

be manually slid or displaced through the strap bracket in use with minimal effort.

The strap may be displaced to a raised position on the drinks container in which the strap body is displaced up through the strap bracket until the stop formation abuts against the strap bracket.

In the raised position of the strap on the drinks container, the strap body may form a handle for carrying the drinks container and/or for attaching the drinks container to a belt or buckle.

The strap may be displaced down into a lowered position on the drinks container in which the strap body is displaced down through the strap bracket up until the point where it can be displaced no further, e.g. the mounting loop abuts up against the strap bracket.

Conveniently, the strap bracket may be integrally formed with at least part of the container body. In one form, the container body is formed from two body sections and the strap bracket is integrally formed with one body section.

The drinks container, including the container body, the adapter, and the closure may include any one or more of the features, or combination of features, of any of the other aspects of the invention described in the summary section.

According to another aspect of the invention there is provided a drinks container comprising:

a container body having a container top forming a central primary outlet which can be opened by a user to drink liquid from the container,

a closure removably mounted over the primary outlet, and

a strap mounted on the container body that is releasably mountable to the closure for tethering the closure to the container body.

The container body may comprise a strap bracket on the side wall of the container body, the strap bracket and the container body forming a strap opening through which the strap is passed in use.

The strap may comprise a strap body having a closure retainer at or towards one end of the strap, and a stop formation at or towards the other end of the strap.

The closure retainer may comprise a mounting loop that extends circumferentially around the closure to mount the mounting loop to the closure.

The closure may have a circumferential groove formed therein and the mounting loop may be received within the groove when the strap is mounted to the closure.

The drinks container, including the container body and the closure may include any one or more of the features, or combination of features, of any of the other aspects of the invention described in the summary section.

Further, the strap may include any one or more of the features, or combination of features, in any of the other aspects of the invention described in the summary section.

BRIEF DESCRIPTION OF THE DRAWINGS

A drinks container for a user in accordance with the invention may manifest itself in a variety of forms. It will be convenient to hereinafter describe in detail some embodiments of the invention with reference to the accompanying drawings. The purpose of providing this detailed description is to instruct persons having an interest in the subject matter of the invention how to carry the invention into practical effect. However, it is to be clearly understood that the specific nature of this detailed description does not supersede the generality of the preceding summary section. In the drawings:

Figure 1 is a front view of an example water bottle known in the prior art;

Figure 2 is an upper perspective view of a reusable cup known in the prior art for holding a hot drink such as coffee;

Figure 3 is an upper perspective view of a drinks container in accordance with one embodiment of the invention shown in a first upright configuration;

Figure 4 comprises a sectional front view and also a top plan view of the drinks container in Figure 3;

Figure 5 is a part sectional front view of an upper part of the container in Figure 4;

Figure 6 is an upper perspective view of a drinks container in accordance with the first embodiment of the invention shown in a second inverted configuration;

Figure 7 is a sectional front view of the drinks container in Figure 6 in the second inverted configuration;

Figure 8 is a part sectional front view of an upper part of the container in Figure 6 in the second inverted configuration;

Figure 9 is a part sectional upper perspective view of the drinks container in Figure 6 in the second inverted configuration;

Figure 10 is a top plan view of a container body for the drinks container in Figure 6 in the second inverted configuration;

Figure 11 is a top plan view of an adapter for the drinks container in Figure 6 in the second inverted configuration;

Figure 12 is a side view of the adapter of the drinks container in Figure 6;

Figure 13 is a perspective view showing two container elements separated from each other to provide two drinking containers;

Figure 14 is an upper three-dimensional view of a drinks container in accordance with yet another embodiment of the invention having a strap shown separated from the container which is used for tethering the closure to the container;

Figure 15 is an upper three-dimensional view of the drinks container of Figure 14 showing the strap positioned in alignment with the strap bracket and adjacent thereto;

Figure 16 is an upper three-dimensional view of the drinks container of Figure 14 showing the strap passed through the strap bracket and with a closure mounted on a central primary outlet of the drinks container;

Figure 17 is an upper three-dimensional view of the drinks container of Figure 14 in which the strap has a mounting loop that is removably mounted on the closure to tether the closure and the strap is in a lowered position;

Figure 18 is an upper three-dimensional view of the drinks container of Figure 17 in which the strap has been displaced up through the strap bracket into a raised strap position;

Figure 19 is an upper three-dimensional view of the drinks container of Figure 14 in which the closure has been removed from the central primary outlet and the closure is tethered to the drinks container by the strap;

Figure 20 is an upper three-dimensional view of the drinks container of Figure 14 showing the adapter in its second inverted configuration in which the adapter is upside down and the closure is received down within the container body below the rim, and the strap is mounted on the drinks container via the strap bracket and is in a lowered strap position; and

Figures 21 to 23 comprise a sequence of schematic drawings showing additional detail of the closure and the removable mounting of the mounting loop of the strap to the closure.

DETAILED DESCRIPTION

Figures 1 and 2 illustrate drinks containers that are known in the prior art. As these drinks containers do not form the invention defined in the current application, they will not be discussed further in this detailed description.

In Figures 3 to 13, reference numeral 10 refers generally to a drinks container in accordance with one embodiment of the invention.

The drinks container 10 comprises generally a container body 12 having a base 14 and a side wall 16 terminating in a rim 18 forming an open top for the container body 12. The drinks container 10 also includes an adapter 20 releasably mounted on the side wall 16 extending across the open top. The adapter 20 is interchangeable between a first upright configuration shown in Figures 3 to 5 and a second inverted configuration shown in Figures 6 to 11. The adapter 20 has a central primary outlet 26 that can be used in the primary configuration and a secondary outlet 27 adjacent the rim 18 of the container body 12 that can be used when the adapter 20 is in the second configuration.

The different components of the drinks container 10 will now be described in greater detail.

As illustrated in the drawings, the container body 12 has a substantially circular cylindrical configuration and its base 14, in turn, is substantially circular. It follows that the rim 18 as shown also has a corresponding circular configuration.

The container body 12 has an inner surface 36 and a sealing formation in the form of a shoulder 40 projecting radially inward from the inner surface 36 that is spaced beneath the rim 18. In the illustrated embodiment, the shoulder 40 projects outward from the inner surface 36 of the side wall 14 around substantially the full circumference of the side wall 14. The shoulder 40 is used to seal the adapter 20 to the inner surface 36 of the container body 12 in the first upright configuration. It also seals a part of the adapter to the container body 12 around a part of its circumference in the second configuration. Another part of the adapter 20 is spaced away from the shoulder 40 to form the secondary outlet 27 as will be described in more detail below.

The structural features of the adapter 20 which are shown in some detail in Figures 3 to 11 will now be described in more detail below. The adapter 20 comprises an adapter body 50 having a broadly circular configuration, when viewed in plan view, that is complementary to the container body 12. Broadly, the adapter body 50 has a wide first

end 52 forming a base section 58 having a circumferential outer surface 51, and an opposed narrow second end 54 forming a primary outlet section having a narrow cylindrical neck 59. The base section 58 is sized and configured to be received with a small working clearance within the inner surface 36 of the wall 14 of the container body 12 in both the first and second configurations.

The adapter body 50 further includes a frusto-conical section 56 intermediate the base section 58 and the primary outlet section 59. The frusto-conical section 56 tapers radially inward in a direction away from the base section 58 and transitions into the neck 59. The central primary opening or primary outlet 26 (which can be used when the adapter 20 is in the first configuration) is formed in the narrow second end 54 and has a removable closure or lid indicated by reference numeral 60 mounted thereon. The closure 60 can be removed by a user (by a simple manual rotation) when the adapter 20 and container 10 is in the first upright configuration for drinking from the container 10. Conveniently, the closure 60 can be removably mounted on the adapter by means of complementary engagement formations, such as bayonet formations or screw threads, on the adapter 20 and the closure 60.

The adapter 20 is operatively mounted on the container body 12 by complementary engagement formations that are engaged by rotation of the adapter relative to the container body 12. In the illustrated embodiment, the engagement formations comprise an outward projecting male formation 72 formed on an inner surface of the container body 12 and a complementary female formation 74 formed on an external surface of the adapter 20, and more specifically the base section 58 thereof.

The outward projecting male formation 72 may form part of a screw thread. In turn, the female formation 74 on the adapter 20 may comprise a channel within which the male formation 72 is received and within which it can be translationally displaced when the adapter 20 is rotated.

The complementary engagement formations 74 and 72 on the adapter body 50 and the container body 12 respectively, are configured such that the same formations 74, 72 are used to releasably mount the adapter 20 on the container body 12 in both the first upright and the second inverted configurations. The use of the same formations 72, 74 for mechanically attaching the adapter 20 on the container body 12 in both configurations is beneficial because it simplifies the structure required to perform this function. It should be recognized that liquid needs to flow between the outer surface of the adapter 20 and the inner surface of the container body when liquid flows out of the secondary outlet 27

to the rim 18. This is where the complementary engagement formations 72, 74 are located so they need to be configured so that they do not interfere with this flow.

The rim 18 of the container is sloped (as shown most clearly in Figures 4 and 5 and 7 and 8) and does not extend perpendicular to a longitudinal axis of the container body 12. This way the rim 18 has a pinnacle or sipping portion 76 that extends proud of the remainder of the rim 18. It will be appreciated that the pinnacle 76 will be a natural point on the rim 18 of the container 10 for a person to sip a drink from, because it stands proud of the rest of the rim 18. In one sense, it provides a sipping point indicator.

Additionally, the adapter 20 has a handle formation 82 projecting out therefrom when in the first configuration for assisting a user to rotate the adapter 20 on the container body 12 to attach it to the container body 12. As illustrated in Figures 3 and 6, the handle formation 82 comprises two diametrically opposed tabs projecting up from an outward facing surface of the frusto-conical section 56 of the adapter body 50.

The adapter 20 has a complementary sealing formation for sealing the adapter against the shoulder 40 on the side wall 12 in the first configuration to resist the passage of liquid between the shoulder 40 and the adapter 20. This complementary sealing formation extends fully circumferentially around the adapter.

In use in the first configuration, when the complementary engagement formations 72, 74 are fully turned, displaced or rotated in one direction as far as they can go. The complementary sealing formation butts up against the shoulder 40 to seal the adapter to the container body 12, and resist a flow of liquid between the base section 58 of the adapter 20 and the shoulder 40 around its full circumference. Thus, the only way that liquid can be dispensed from the drinks container 10 in the first configuration is through the central primary outlet 26 when the closure 60 is removed by a user. That is, the container body 12 is sealed to the adapter 20 around its full circumference with no liquid openings.

The drinks container 10 with the adapter 20 in the second inverted configuration is shown in Figures 6 to 11.

In the second configuration, the central primary outlet 26 is permanently closed, and the associated section of the adapter 20 is received down within the container body 12 such that it is not visible when the drinks container 10 is viewed in a side view.

In the second configuration, liquid can be dispensed from the container 10 through the secondary outlet 27 which is formed between the base section 58 on the adapter 20 and

the shoulder 40 on the container body 12. The adapter 20 comprises a further complementary sealing formation 96 for sealing the adapter 20 against the shoulder 40 on the side wall 12 in the second configuration along most of its length. The sealing is interrupted by a cut out formation 90 on the circumference of the base section 58 of the adapter 20. The cut-out formation 90 together with the shoulder defines an opening that forms the secondary outlet 27 that is permanently open when the adapter 20 is mounted on the container body in the inverted configuration.

Further, the male formation 72 on the container body 12 defines at least one interruption or gap therein around the circumference of the container body 12 that is axially aligned with the cut-out 90 in the adapter 20 when the adapter is in the second configuration. Further, the female engagement formation 74 formed on the adapter 20 also has an interruption or gap in line with the cut-out 90, e.g. axial alignment with the cut-out 90. These gaps in or interruptions in the male and female formations 72, 74 permit liquid flowing through the secondary opening 27 to flow past the male and female formations to the rim 18 over an internal surface of the container body (without being obstructed). Put another way, the male and female formations72, 74 engaging the adapter 20 with the container body 12 are located so that they do not interrupt or interfere with the flow of liquid through the secondary outlet 27.

In the illustrated embodiment, the adapter 20 includes a further cut out 94 which forms a further opening between the adapter 20 and the shoulder 40 on the container body 12 communicating with an interior space within the container body 12. The one and further cuts outs 90, 94 are diametrically opposite each other on the adapter 20. As with said one cut out 90, the further cut out 94 forms an opening between the adapter 20 and the sealing formation 40 through which fluid can flow. Applicant has found that the opening formed by cut out 94 is conveniently used for allowing air to be drawn into the container body 12 to replace liquid that is dispensed out of the container body 12 through the secondary outlet 27 formed by said cut out 90. This helps to avoid reduction of pressure within the container body 12 and permits liquid to flow out of the container body 12.

In use, the adapter 20 is moved to the second configuration by removing it from the container body 12 and inverting it and then working it back onto the container body 12 in an inverted configuration. This is accomplished by rotating the adapter 20 onto the container body 12 with the complementary male and female engagement formations 72 and 74 engaging with each other. The adapter 20 is rotated onto the container body in the second configuration until it butts up against a stop formation and can be rotated no further.

In this position, the adapter 20 and specifically the further sealing formation 96 bears up against the sealing formation 40 except at those locations where the cut outs 90, 94 are formed. The one cut out 90 is spaced away from the sealing formation 40 to form said secondary outlet 27 through which liquid can be dispensed for drinking from the rim of the container 10. The further cut out 94 also provides an opening that allows air to flow into the container body 12 to replace liquid that is dispensed therefrom through the secondary outlet 27. The second cut out 94 is spaced diametrically opposite to the first cut out 90 to ensure that liquid does not flow out of this opening as well as out of the secondary outlet 27 when the drinks container 10 is tipped up for drinking.

Further, in the second configuration where the adapter 20 is fully rotated onto the container body 12 (to the point where it is stopped against further rotation), the first cut out 90 is aligned with the pinnacle 76 of the rim 18 so that the secondary outlet 27 is axially aligned with the pinnacle 76. This causes the secondary outlet 27 through which the liquid flows to naturally line up with the pinnacle 76, which is where a user's lips make contact with the rim 18.

With this embodiment, when the adapter 20 is fully engaged with the container body 12 in the second configuration, the secondary outlet 27 is permanently open to the atmosphere outside the container and is not sealed off between uses of the drinks container. This works satisfactorily and simplifies operation of the drinks container in the second configuration because there is no movement of the adapter 10 in use. It remains in a single position (in which it is rotated fully onto the container body until it can be rotated no more) and is not rotated backwards and forwards during use in the secondary configuration.

The container body 12 includes a second cylindrical container body part or element 98 mounted circumferentially over and around a first container body part or element 99. Figure 13 shows the second cylindrical body part 98 mounted over the first container body part 99. The two body parts 98 and 99 are configured so that they present a smooth outer surface for the drinks container 10 as a whole, when the second container body part 98 is mounted over the first container body part 99. That is, an outer surface of the second container body part 98 forms a straight line in a longitudinal direction with an outer surface of an upper portion of the first container body part 99. In Figure 13, the first container body part 99 has been removed from the second container body part 98 so that the second container body part 98 forms an open topped drinking receptacle.

Figures 14 to 23 illustrate a drinks container in accordance with another embodiment of

the invention. This embodiment has some similarities with the embodiment illustrated in the earlier drawings. Accordingly, the same reference numerals will be used to refer to the same components as in the earlier embodiment unless otherwise illustrated.

The drinks container 10 comprises broadly a container body 12 having a base 14 and a side wall 16 terminating in a rim 18 that defines an open top.

The container 10 further includes an adapter 20 that is removably received in the open top of the container body 12 and is mounted thereto. The adapter 20 is interchangeable between a first upright configuration and a second inverted configuration in which it is turned upside down and mounted back on the container body 12. In the first upright configuration, the drinks container 10 has a central primary opening or outlet 26 through which a liquid can be drunk by a user, and a closure 60 removably mounted over the open top of the primary outlet 26.

In the second inverted configuration, the adapter 20 is flipped upside down (or inverted) and forms a secondary opening or outlet 27 on the side wall 16 of the container body 12 leading to the rim 18. In the second inverted configuration, liquid can flow through the secondary outlet 27 to the rim 18 and be sipped from the rim 18 by a user.

The drinks container 10 further comprises a strap 100 that is formed separate from the container body 12 and can be selectively mounted on the container body 12. The strap 100 can be selectively attached to the closure 60 on the primary outlet 26 to tether the closure 60 to the drinks container 10 so that it is not inadvertently lost or misplaced when separated from the container body 12 and the primary outlet 26.

The container body 12 has a strap bracket 110 formed on an outer surface of the container body 12 towards the open top thereof. The strap bracket 110 is formed by a broadly U-shaped bracket member with two spaced legs that join an external surface of the container body 12. The strap bracket 110 defines a strap opening between the bracket member 110 and the container body 12 through which the strap 100 can be passed. Typically, the strap bracket 110 may be integrally formed with the wall of the container body 12, e.g. by injection moulding or the like. That is, it is integrally formed with its adjacent wall of the container body 12.

The strap 100 comprises an elongate strap shaft or body 102 and a closure attachment formation 104 formed at one end thereof. The closure attachment formation 104 is conveniently provided by a resiliently extensible mounting loop that can be pulled over and around the closure 60 to attach the closure 60 thereto. The strap body 102 is

flattened and has two major surfaces that are dimensioned to be passed through the strap bracket 110 with a working clearance. In the illustrated embodiment, the mounting loop 104 is made of a resilient material that can be stretched outward to mount it circumferentially around the closure 60. The resilient material of the mounting loop 104 will contract inward when it is released after being stretched over the closure 60 to return towards its resting or relaxed state, and it will grip the circumference of the closure 60 with a friction grip. Further, the mounting loop 104 can be deformed, e.g. squashed up, into a shape that enables it to be pulled through the strap bracket 110. This enables the strap 100 to be physically mounted on the container body 12 and suitably positioned adjacent to the top of the container body 12 for its mounting to the closure 60.

The strap 100 further comprises a stop formation 106 at an opposed end of the strap body 102 that is configured such that it cannot be pulled through the strap opening formed by the strap bracket 110. The stop formation 106 may project up from one major surface of the strap body 102. In the illustrated embodiment, the stop formation 106 has a thickness or height that is greater than the clearance in the strap opening between the strap bracket 110 and the container body 12 such that it cannot be pulled through the strap bracket 110. The stop formation 106 thereby tethers the strap 100 and a closure 60 to the associated drinks container 10 when the strap 100 is mounted to the closure 60.

Conveniently, the strap 100 may be integrally formed of a polymeric material, e.g. of silicon such as medical grade silicon, by an injection moulding operation or the like. In one application, the entire strap 100 including strap body 102, mounting loop 104 and stop formation 106 is integrally moulded of silicone in a single moulding operation. Applicant has found that silicone provides a suitable amount of resilience including stretchability or extensibility, for securely mounting the mounting loop 104 over the closure 60 and it also has a suitable amount of flexibility, particularly as regards its flexibility.

As shown in the embodiment in the drawings, a circumferential groove 118 is formed in the closure 60 which receives the mounting loop 104 of the strap 100 when it is mounted on the closure 60. This locates and seats the mounting loop 104 in engagement with the closure 60 when it is fully received in the circumferential groove 118.

In use, the various steps that are taken when the strap 100 is initially mounted on the drinks container 10 and then used on the drinks container 10 will now be described.

Prior to use, the strap 100 may initially be separated from the drinks container 10 as

shown in Figure 14 and a first step will involve mounting it on the container 10. To mount the strap 100 on the container 10, the strap body 102 is positioned parallel to a side of the container body 12 with the mounting loop 104 positioned adjacent to the strap bracket 110. The strap body 102, and more specifically the mounting loop 104 forming the closure mount, can then be slid towards and through the strap bracket 110 as shown in Figures 15 and 16.

The mounting loop 104 at a leading end of the strap body 102 is resilient and is designed so that it can be manually deformed and pulled through the strap bracket 110 without undue difficultly. Further, the body 102 of the strap 100 is configured and dimensioned to be received within the strap bracket 110 with a working clearance. This enables the strap body 102 to be easily pulled through the strap bracket 110 as shown in Figure 16, particularly once the mounting loop 104 has been pulled through the strap bracket 110. The strap body 102 cannot be pulled fully through the strap bracket 110 because it is stopped by the stop formation 106 on the opposite end of the strap body 102 to the mounting loop 104.

Once it is passed through the strap bracket 110, the strap body 102 and specifically the mounting loop 104, can then be mounted onto the closure 60 to tether the closure 60 to the strap 100 and thereby the rest of the container 10.

To do this, the mounting loop 104 is manually pulled over an upper end of the closure 60, so that it circumferentially surrounds the closure 60, and is then pulled or slid down the outer axial surface of the closure 60 towards the circumferential groove 118 within which it can be received as shown in Figure 17. When it is released, it contracts inward and grips the closure 60.

The groove 118 correctly positions the mounting loop 104 on the closure 60 and it also resists it from being unintentionally pulled off or otherwise removed from the closure 60.

In this position in Figure 17, the strap 100 cannot easily be accidentally detached from the container 10. The strap body 102 cannot be withdrawn through the strap bracket 110 because the attached closure or lid 60 cannot be withdrawn through the strap opening in the strap bracket 110. Further, the strap 100 cannot be pulled up through the strap bracket 110 because of the stop formation 106 on its end cannot pass through the opening in the strap bracket 110. Further, the closure 60 is securely mounted on the mounting loop 104 so it cannot easily be separated from the drinks container 10 and lost.

During use, the strap 100 may be slid up the side wall 16 of the container body 12 to an

upper strap position 122 shown in Figure 18 where the stop formation 106 rests up against the strap bracket 110. In this position, the strap body 102 has enough length or play above the strap bracket 110 to enable the closure 60 to be removed from the container body 12, e.g. in preparation for drinking from the primary central opening 26. Further, in this upper strap position 122 shown in Figure 18, the strap 100 can be passed through a belt, buckle or the like of a user, to carry the drinks container 10 around in an effortless and convenient manner. Thus, the strap 100 serves two distinct functions. Firstly, it acts to tether a closure 60 so that it is never physically separated from the container 10. Secondly, it can be used to form a carry handle for the drinks container 10 that can be used to carry it around.

In Figure 19, the closure 60 has been removed from the container body 12 which enables a user to drink liquid from the primary outlet 26. The closure 60 is tethered by the strap 100 so it is still physically attached to the drinks container 10. In this situation, where a user is drinking from the outlet 26, the strap body 102 can be pulled down through the strap bracket 110 to a lower strap position 124 that displaces the closure 60 away from the region around the primary outlet 26. This action spaces the closure 60 away from the primary outlet 26 so that it does not hinder or obstruct a person drinking from the primary outlet 26.

As described in the earlier part of the specification and illustrated in Figure 20, the adapter 20 can be removed and mounted back on the container body 12 in a second inverted configuration. This action converts the drinks container 10 to a coffee mode, where a hot drink such as tea of coffee or an alcoholic drink, can be sipped from a rim 18 of the drinks container 10. In this inverted configuration, the closure 60 is received within the container body 12 and is not accessible for attachment to the strap 100.

In this configuration, the strap 100 can be passed through the strap bracket 110 with the strap body 102 arranged extending along the side wall 16 of the container body 12 in a lowered strap position 124 as shown in Figure 20. Even though the strap 100 is not used to tether a closure when the drinks container 10 is in the sipping mode, it can still be used to carry the drinks container 10 or attach it to a belt or buckle. Further, it does ensure that the strap 100 will be ready and available for use when the container is next used in the first configuration. That is, when the drinks container 10 is converted back into the first configuration with the closure 60 projecting out of the container body 12.

A working advantage of the embodiment described above with reference to Figures 14 to 23 is that it provides a means for tethering the closure 60 to the strap 100 when it is

taken off the container 10. It ensures therefore that the closure is attached to the container body 12 at the time (being either screwed onto the adapter or by held by the strap). It is not separated at any time and as a result, it will be less prone to getting lost. It also provides a convenient strap that enables a user to hitch the drinks container to something else, e.g. a belt or a bag, that they have.

Another advantage of the drinks container is that the strap and its interaction with the container is able to accommodate having the adapter in the inverted second configuration. The strap is mounted on the side of the container and remains attached to the container while the adapter is in the inverted coffee configuration for sipping a drink from the rim of the container. Thus, the strap is not prone to being lost while the adapter is in the inverted configuration, and it can still be used as a handle when the adapter is in this configuration.

Further, the strap does not interfere with the use of the container when the adapter is in the inverted configuration. It will be mounted on the container ready for use being attached to the closure when the container is returned to its first configuration for drinking through the primary outlet.

The drinks container with the strap is also very reliable and even if a strap breaks, it can easily be replaced with a new strap. Likewise, if the mounting loop on the strap becomes too stretched and no longer holds the closure securely and tightly, the strap can be replaced by a user with a new strap. Yet another advantage of the drinks container described above is that a user can mix and match different straps for different uses and different styles because they are detachable. For example, they can choose straps of different colours and different designs.

Yet another advantage of the illustrated embodiment is the ease of manufacture of the strap. The strap is formed by a single injection moulded component and the strap bracket on an outer surface mounted on the container body can be integrally moulded with the container body.

Yet further this embodiment has the versatility that the strap can be removed from the drinks container if required for any reason. It confers an optionality to remove the strap if desired so that the container can be provided and used without a strap.

An advantage of a drinks container as described above with reference to the drawings in Figures 3 to 23 is that it provides a single container that can be interchanged between an exercise bottle for hydrating a user during exercise, and a re-usable cup for sipping a

drink. Therefore, a user does not need to carry two drinks containers around with them because the single drinks container can be used in several different ways. Applicant recognizes that it is very cumbersome and awkward for a person to carry two reusable drinks containers around. Applicant's container, which provides a single container which can double as both coffee cup and exercise container, obviates the need for two separate containers.

The drinks container provides this interchangeability by means of an adapter that can be changed from a first upright configuration on a container body, and a second configuration in which it is inverted and then mounted back on the container body. One working advantage is the ease with which the container can be interchanged between the first and second configurations. This makes the drinks container very versatile and suitable for use for multiple functions.

Another working advantage of the drinks container described above with reference to the drawings is that the adapter is able to be mounted on the container body by complementary engagement formations on the circumference of the adapter. While doing this, the container forms an unobstructed path along the container body past the complementary engagement formations for liquid flow. It is important that the engagement formations mounting the adapter to the container body do not interfere with liquid flowing through the secondary outlet.

Further, it will be appreciated that if liquid is allowed to collect and pool in any engagement formations along its passage out through the secondary outlet, this has the potential to pose food hygiene problems. The Applicant's container design largely obviates these risks.

Another advantage of the illustrated drinks container is that the same engagement formations on respectively the container body and the adapter can be used to mount the adapter on the container body in both the first and second inverted configurations. This use of the same formations enables the construction of the drinks container to be simplified and this feature also contributes to the working advantage described immediately above.

A further feature of the illustrated drinks container is that the primary outlet has a normally closed position which can be opened by removing a closure. However, in the second configuration, the secondary outlet is always open and thus no manual switching of the adapter is required when sipping a drink from the rim in the secondary configuration. There is no manual movement of the adapter to open the secondary outlet once the

adapter is in its second configuration on the container body. This more faithfully resembles the situation when a user sips a drink from the rim of a cup.

A yet further working advantage is that the illustrated feature of providing a second container part circumferentially mounted over the first container part is extremely useful because it enables the drinks container to provide two drinking cups from a single drinks container.

Yet another working advantage of the illustrated drinks container is the elegance of the mechanical design which is minimalist while also being very practical and easy to use. Applicant therefore believes that it will find wide appeal with consumers. Finally, the various components including the adapter and container body can be moulded using established moulding techniques and the cost of making the drinks container is not high.

Yet another working advantage of the illustrated drinks container is that it provides an opportunity to reduce the number of single use drinks containers that are used day to day and thereby reduce the impact on the environment of this practice.

It is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative only and not limiting. All such modifications and variations thereto, as would be apparent to persons skilled in the art, are deemed to fall within the broad scope and ambit of the invention as is set forth herein. Changes in detail or structure may be made without departing from the basic elements of the invention as defined in the following claims.

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CLAIMS:

1. A drinks container comprising:

a container body having a side wall terminating in a rim forming an open top,

an adapter mounted on the container body and extending across the top, wherein the adapter is interchangeable between a first upright configuration where it forms a central primary outlet which can be opened by a user to drink liquid from the container, and a second inverted configuration in which the adapter forms a secondary outlet adjacent the rim of the container through which liquid can be passed for enabling a user to drink the liquid from the rim of the container.

2. A drinks container according to claim 1, wherein the adapter comprises a base section that is configured to complement the container body, and a primary closure section within which the central primary outlet is formed that is smaller than the base section and is axially spaced from the base section.

3. A drinks container according to claim 2, wherein the primary closure section projects outward proud of the rim of the container body in the first configuration, and the base section of the adapter is received within the container body in the first configuration, and in the second configuration, the base section of the adapter is positioned adjacent the rim and the primary closure section is received within the container body spaced axially inward of the rim.

4. A drinks container according to claim 2 or claim 3, wherein the adapter further includes a frusto-conical section intermediate the base and primary closure sections, wherein in the first configuration, the base section and frusto-conical section of the adapter form a shoulder and neck of the drinks container, and in the second configuration, the base section and frusto-conical section of the adapter are received below the rim of the container and are not visible when the drinks container is viewed side on.

5. A drinks container according to any one of claims 1 to 4, wherein the drinks container comprises complementary engagement formations on the container body and the adapter respectively, for releasably mounting the adapter on the container body in each of the first and second configurations.

6. A drinks container according to claim 5, wherein the container body and the adapter are configured to be rotatable relative to each other, and the complementary

engagement formations on the container body and the adapter are configured such that they engage by means of a rotation of the adapter relative to the container body when the adapter is placed in the first or second configurations.

7. A drinks container according to claim 6, wherein the complementary engagement formations on respectively the container body and the adapter are configured such that the same engagement formations are used to mount the adapter on the container body in both the first and second configurations.

8. A drinks container according to claim 5 or claim 6, wherein the complementary engagement formations comprise a male formation on the container body and a female formation on the adapter within which the male formation is received, and within which the male formation is translationally displaced when the adapter is moved between the first or second configurations.

9. A drinks container according to claim 8, wherein the adapter comprises an outlet formation on its perimeter forming the secondary outlet that opens into the container body when the adapter is in the second configuration.

10. A drinks container according to claim 9, wherein the outlet formation comprises a cut out on a circumference of the adapter that forms an opening between the adapter and the container body through which liquid can flow out of the container body.

11. A drinks container according to claim 10, wherein the rim of the container body extends at an acute angle to the longitudinal axis of the container body and forms a pinnacle on the rim that extends proud of a remainder of the rim, and the pinnacle is axially aligned with the cut out on the adapter in the second configuration.

12. A drinks container according to claim 11, wherein the male formation on the container body defines at least one interruption or gap therein around the circumference of the container body that is axially aligned with the pinnacle on the rim of the container body, and that is aligned with the cut out in the adapter when the adapter is in the second configuration for enabling liquid to flow past the male formation and out through the secondary outlet.

13. A drinks container according to any one of claims 10 to 12, wherein the female formation on the adapter defines at least one interruption or gap therein that is positioned in axial alignment with the cut out for enabling liquid to flow past the female formation and out through the secondary outlet

14. A drinks container according to any one of claims 10 to 13, wherein the adapter includes a further cut out which forms a further opening between the adapter and the shoulder on the container body.

15. A drinks container according to claim 14, wherein the one and further cuts outs are positioned substantially diametrically opposite each other on the adapter.

16. A drinks container according to any one of claims 1 to 15, wherein the container body includes a shoulder that projects radially inward from the side wall, and the adapter comprises one and further complementary sealing formations for sealing the adapter to the shoulder in respectively the first and second configuration.

17. A drinks container according to claim 16, wherein the complementary sealing formation that seals the adapter to the shoulder in the second configuration is interrupted by the cut out and only extends around a part of the adapter.

18. A drinks container according to claim 12, wherein the male formation on the container body comprises first and second male sections on diametrically opposed positions on the container body which firmly mount the adapter on the container body such that it cannot lift up off the container body.

19. A drinks container according to any one of claims 1 to 18, wherein the drinks container furthers include a primary closure removably mounted over the central primary outlet.

20. A drinks container according to any one of claims 1 to 19, wherein the container body comprises a first and second container element, wherein the second container element is removably mounted on the first container element in a nested configuration, and the second container element is able to be removed from the first container element by an axial sliding action.

21. A drinks container according to claim 20, wherein the drinks container includes a securing arrangement comprising a magnet for releasably holding the second container element in position on the first container element.

22. A drinks container according to any one of claims 1 to 21, wherein the container body is substantially circular cylindrical, and the adapter has a complementary circular cross-sectional configuration.

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23. A drinks container comprising:

a container body comprising a side wall terminating in a rim forming an open top,

an adapter mounted on the container body and extending across the top, wherein the adapter is interchangeable between a first upright configuration where it forms a central primary outlet which can be opened by a user to drink liquid from the container, and a second inverted configuration in which the adapter forms a secondary outlet adjacent the rim of the container through which liquid can be passed for enabling a user to drink the liquid from the rim of the container,

a closure removably mounted over the central primary outlet; and

a strap mounted on the container body that is releasably attachable to the closure for tethering the closure to the container body.

24. A drinks container according to claim 23, wherein the strap is releasably mounted on the container body, and the container body comprises a strap bracket on the side wall of the container body, the strap bracket and the container body forming a strap opening through which the strap is passed in use.

25. A drinks container according to claim 23 or claim 24, wherein the strap comprises a strap body having a closure retainer at or towards one end of the strap, and a stop formation at or towards the other end of the strap.

26. A drinks container according to claim 25, wherein the closure retainer comprises a mounting loop that extends circumferentially around the closure to mount the mounting loop to the closure.

27. A drinks container according to claim 26, wherein the mounting loop is made of a resilient material that can be stretched outward to mount the mounting loop on the closure extending circumferentially around the closure, and when the mounting loop is released the mounting loop contracts radially inwardly and grips the closure with a frictional grip when released.

28. A drinks container according to claim 26 or claim 27, wherein the resilient material of the mounting loop is selected so that it is capable of being manually deformed such that it can be displaced through the strap opening in the strap bracket.

29. A drinks container according to any one of claims 26 to 28, wherein the closure has a circumferential groove formed therein and the mounting loop is received within the groove when the strap is mounted to the closure.

30. A drinks container according to any one of claims 25 to 29, wherein the strap body is flattened having two major surfaces, and the stop formation on the strap body is configured and dimensioned to resist it being drawn through the strap bracket.

31. A drinks container according to claim 30, wherein the strap body is flattened and has two major surfaces, and the stop formation has a height projecting outward from one major surface, and a stiffness or rigidity, that resists it being pulled through the strap bracket.

32. A drinks container according to any one of claims 23 to 31, wherein the strap body, the closure retainer and the stop formation are integrally formed of a polymeric material in an injection moulding operation.

33. A drinks container according to any one of claims 23 to 31, wherein the strap bracket is integrally formed with at least part of the container body.

34. A drinks container comprising:

a container body having a container top forming a central primary outlet which can be opened by a user to drink liquid from the container,

a closure removably mounted over the primary outlet, and

a strap mounted on the container body that is releasably mountable to the closure for tethering the closure to the container body.

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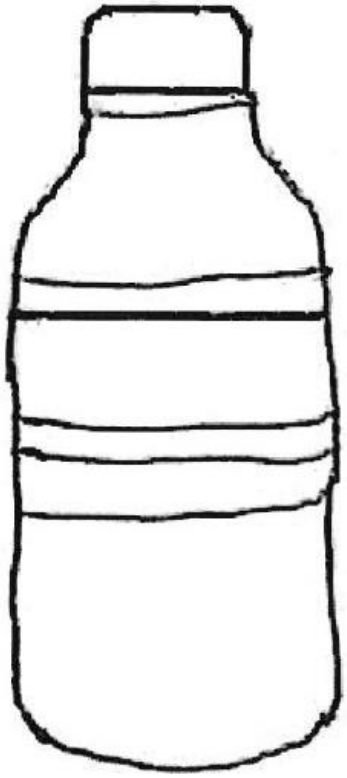

Figure 1

Figure 2

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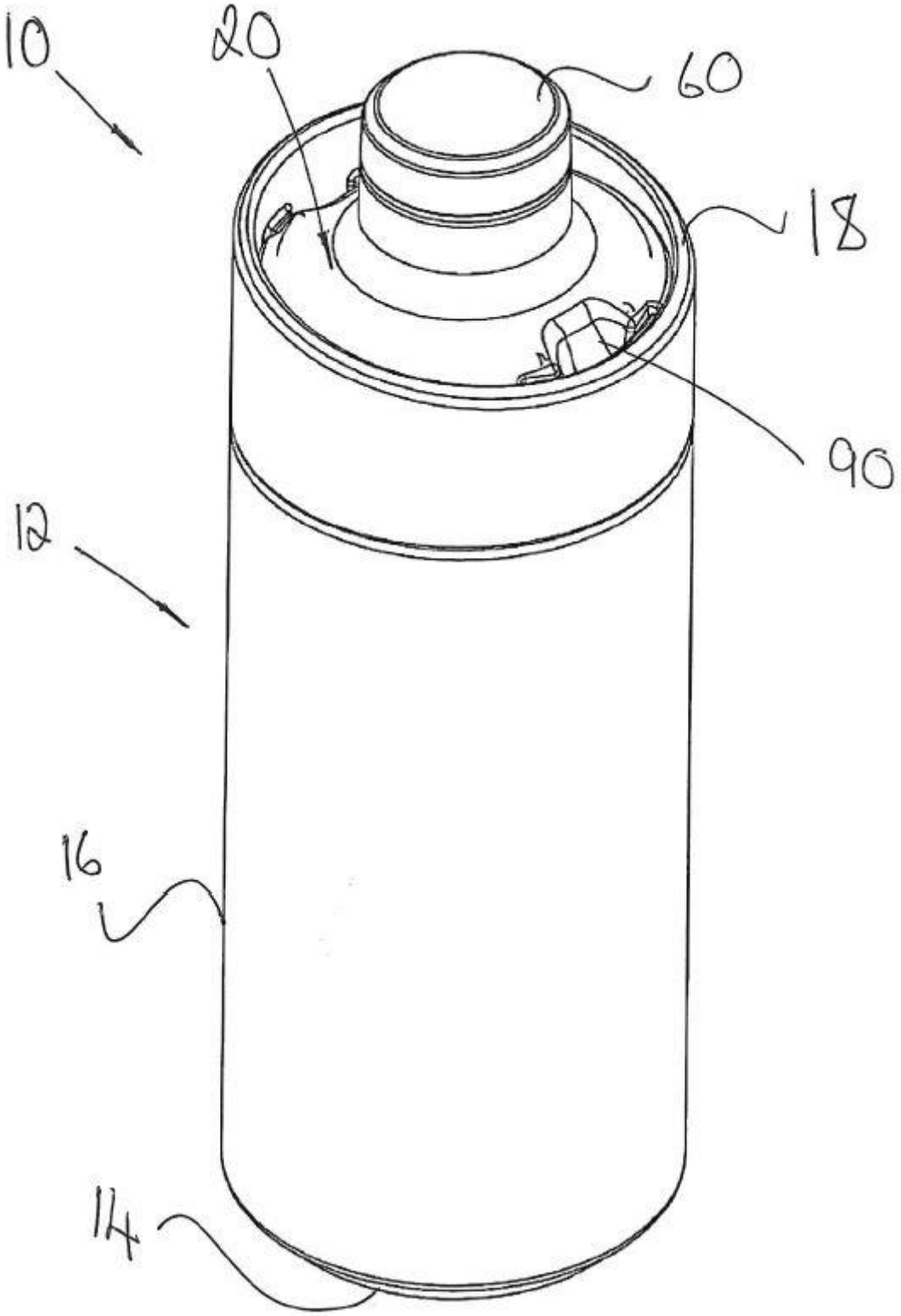

Figure 3

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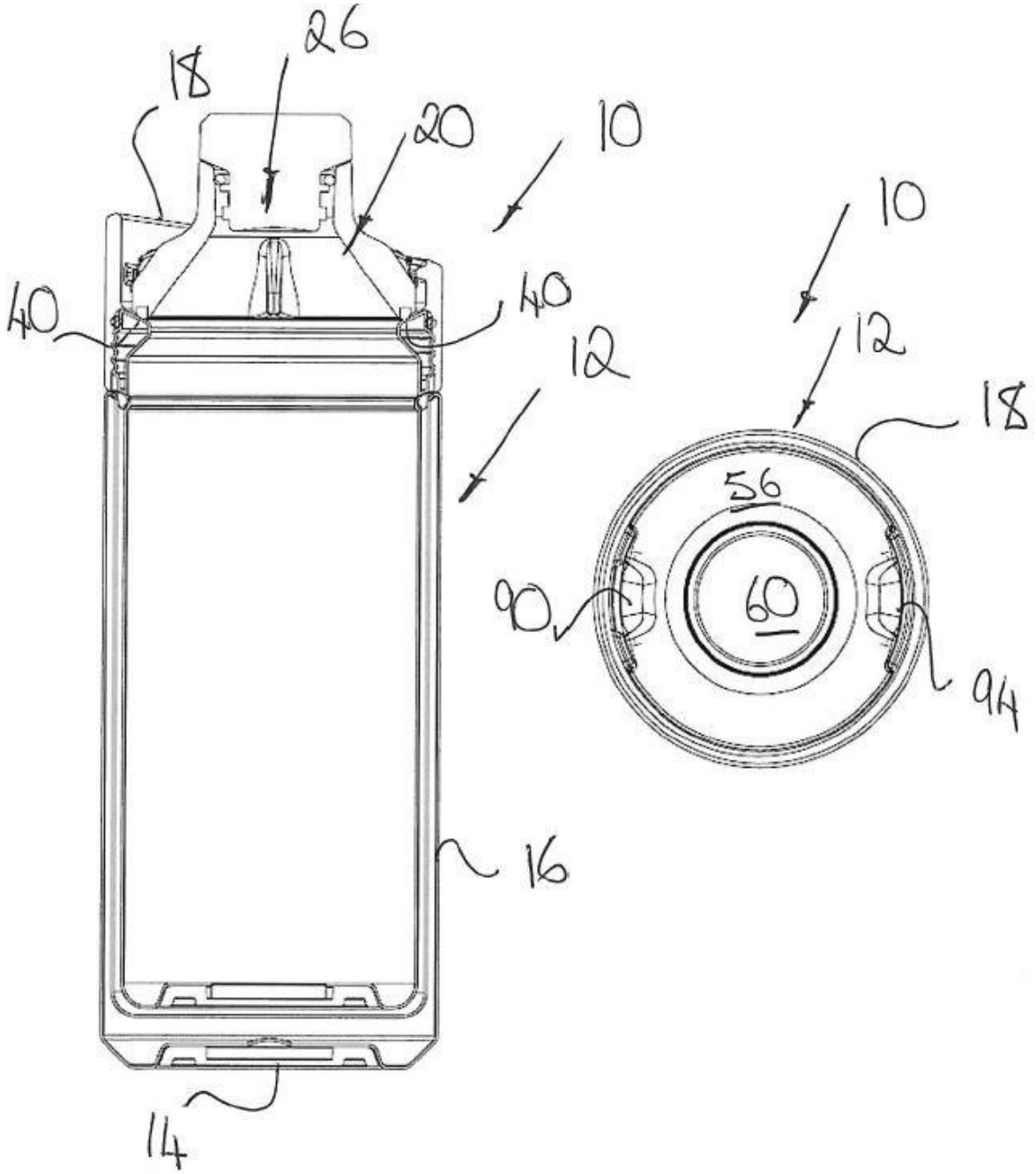

Figure 4

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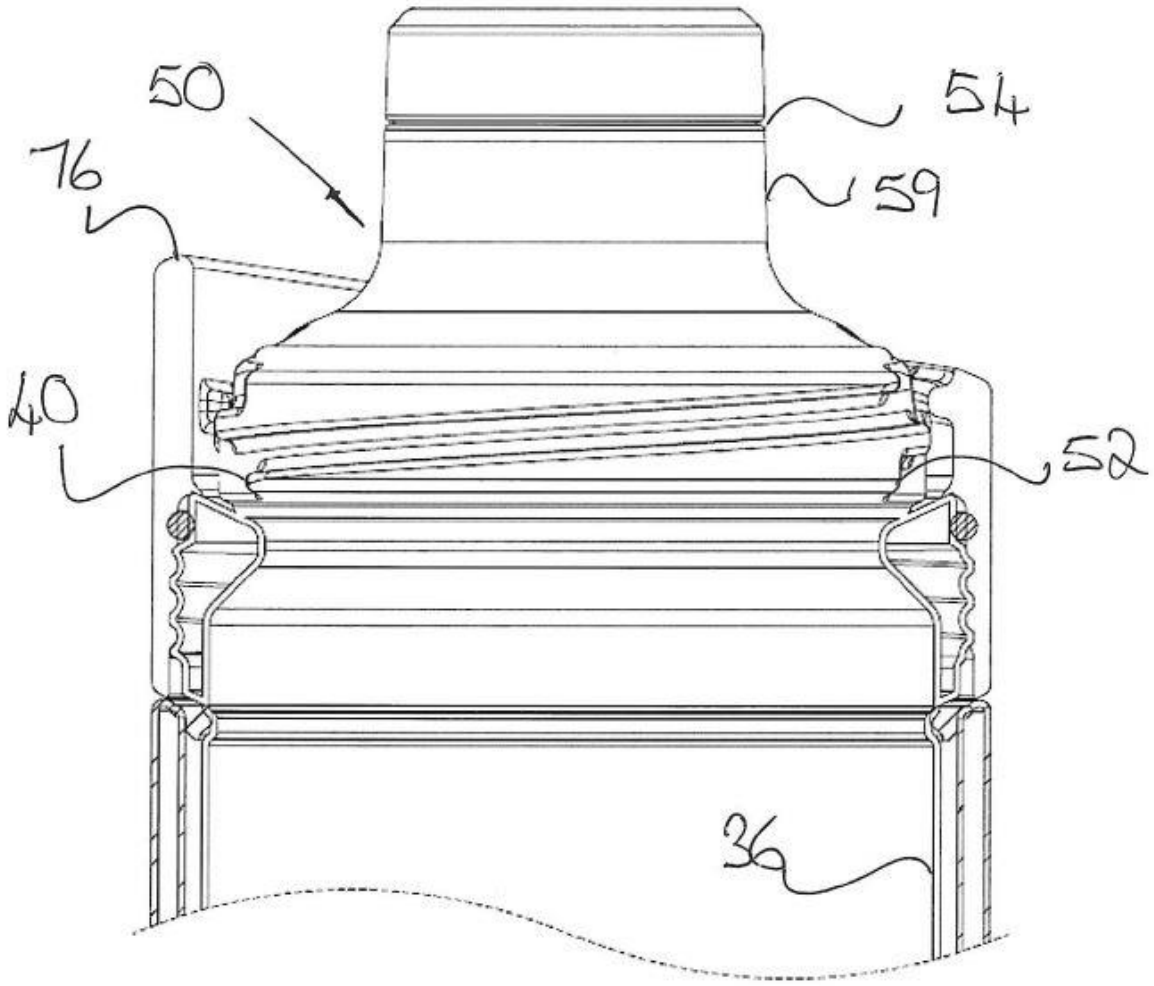

Figure 5

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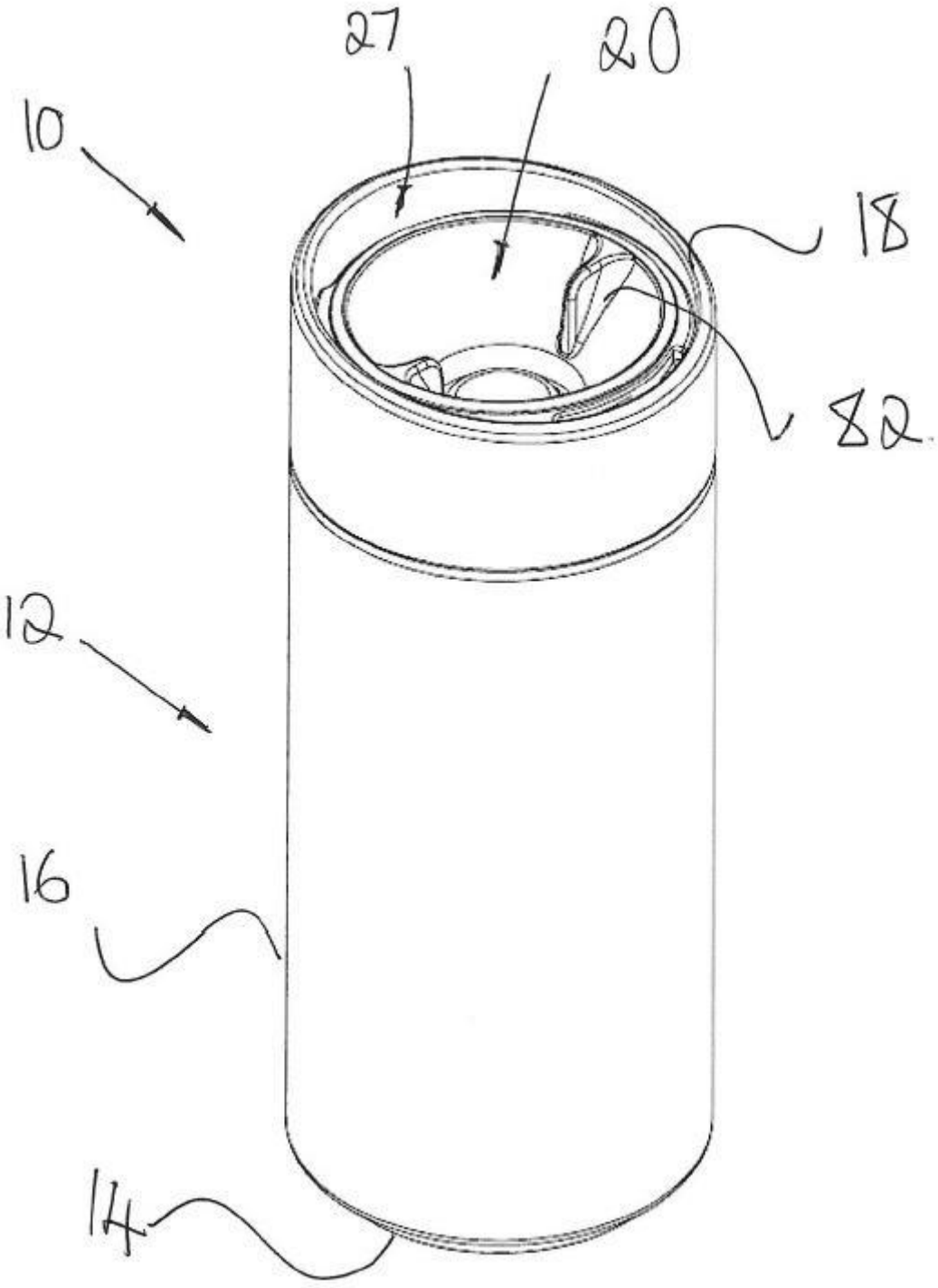

Figure 6

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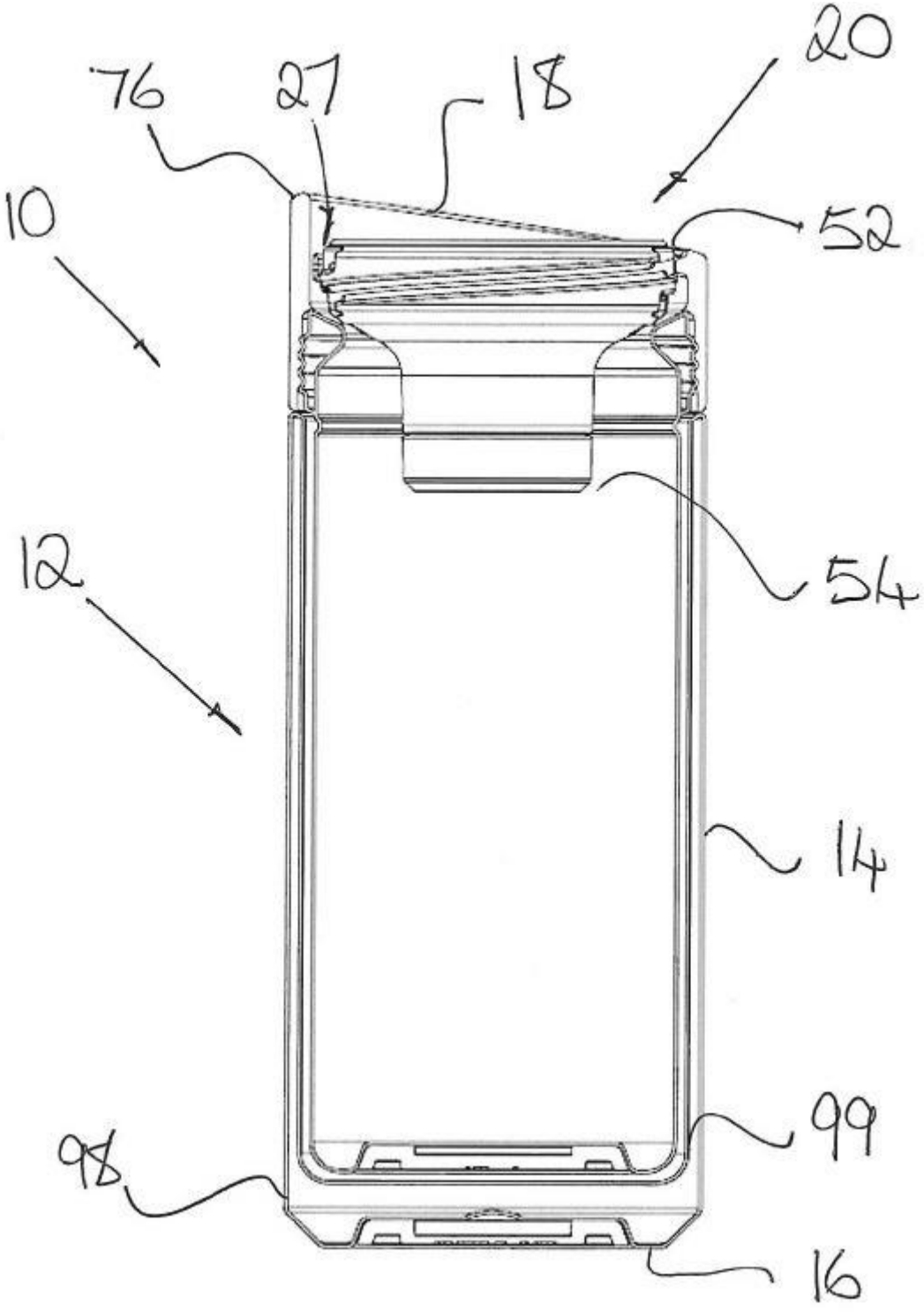

Figure 7

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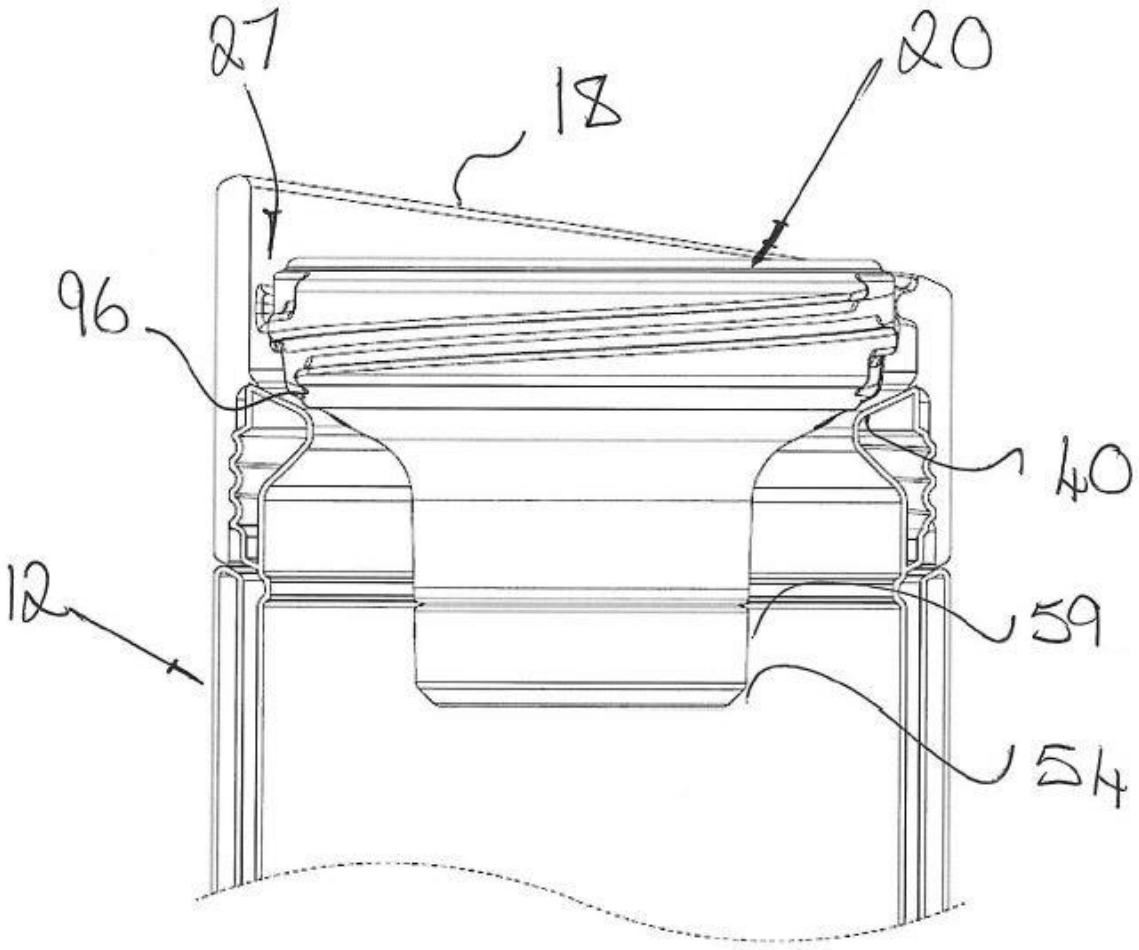

Figure 8

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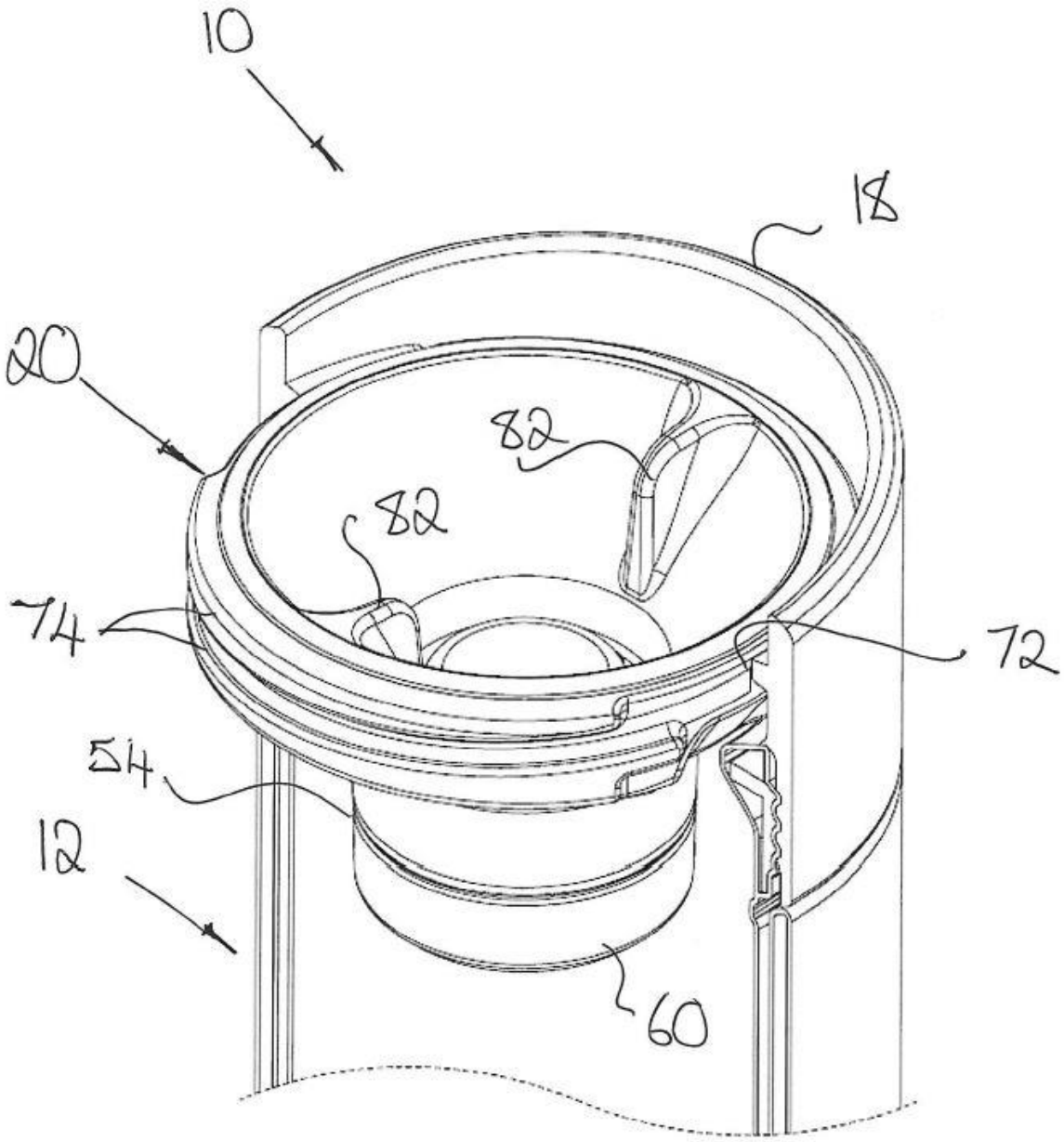

Figure 9

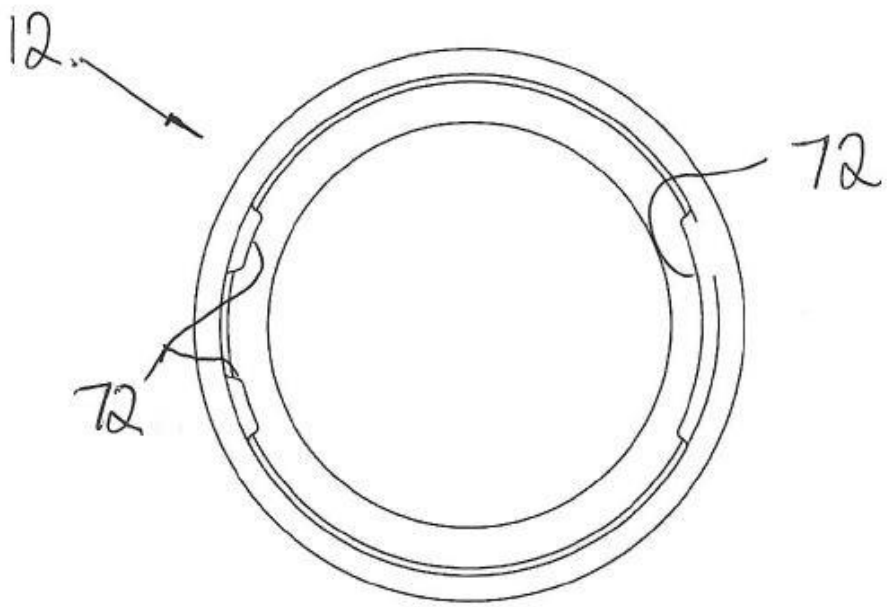

Figure 10

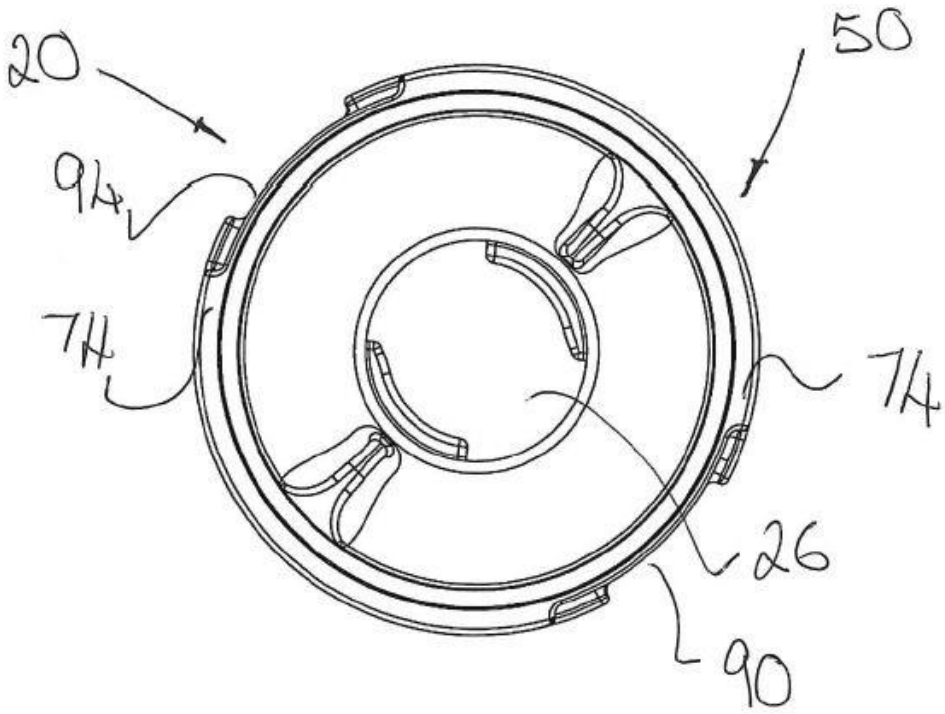

Figure 11

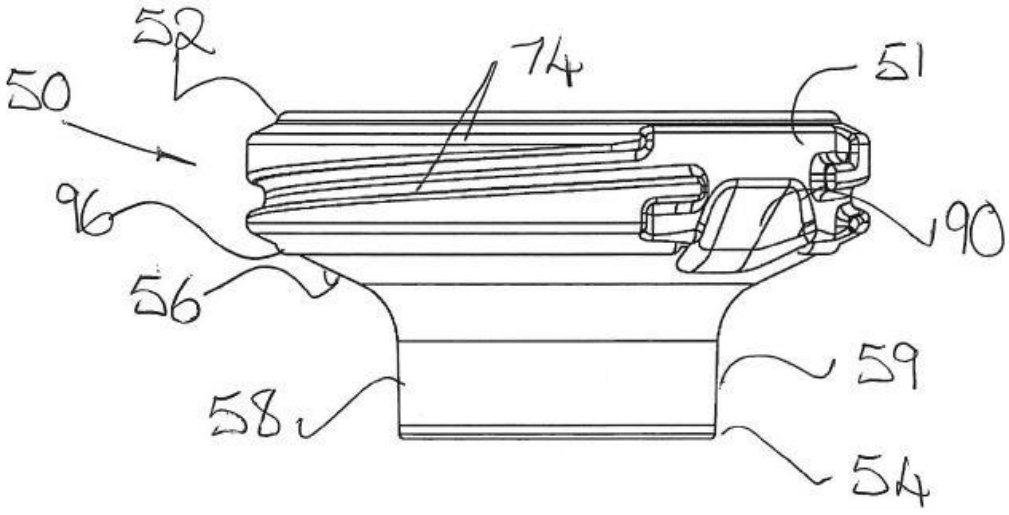

Figure 12

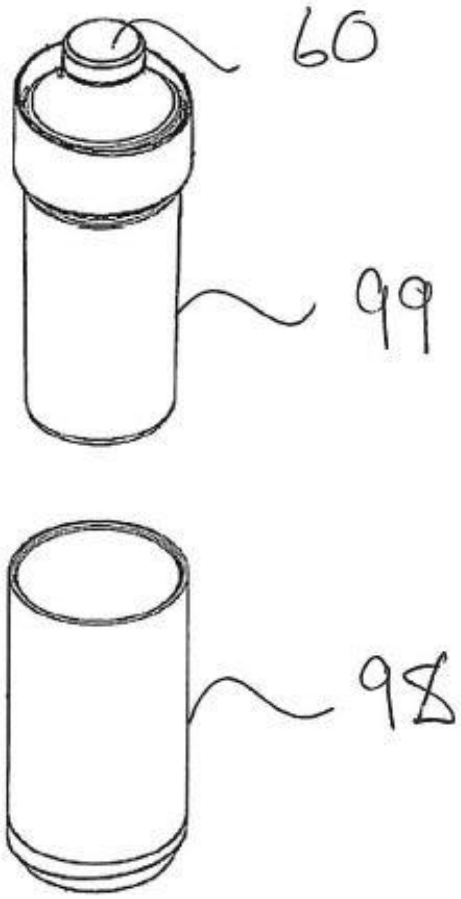

Figure 13

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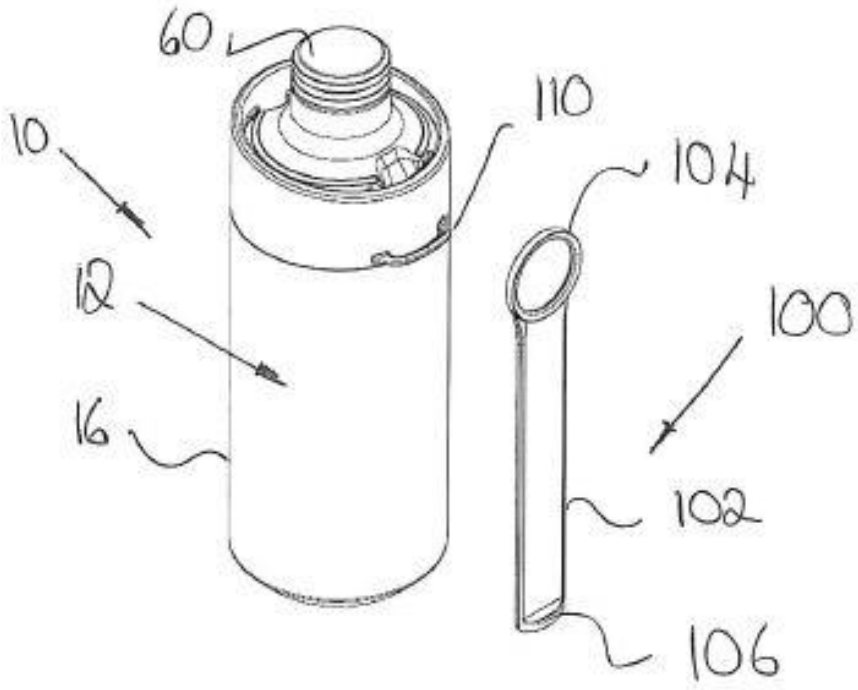

Figure 14

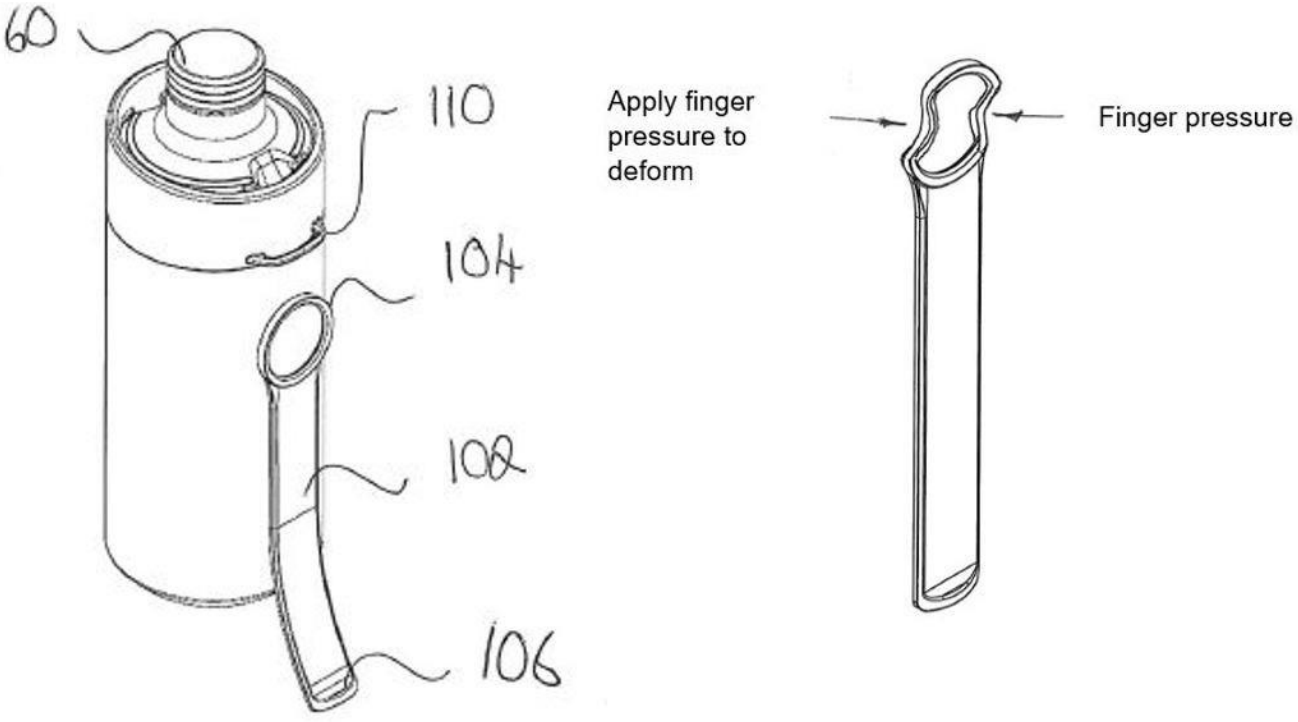

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Figure 15

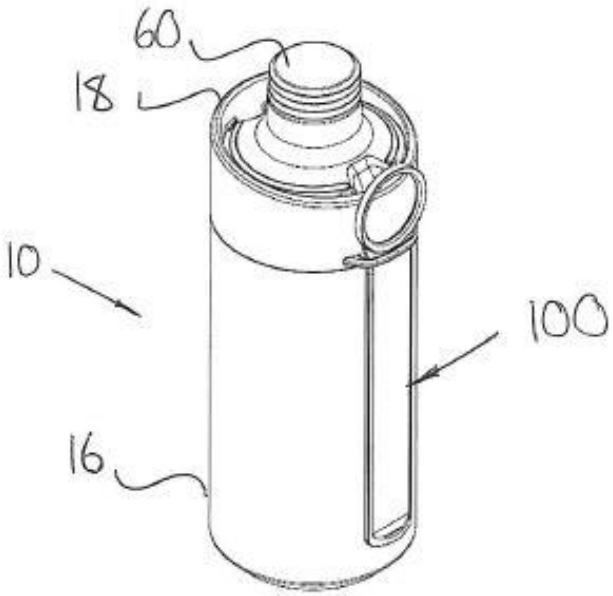

Figure 16

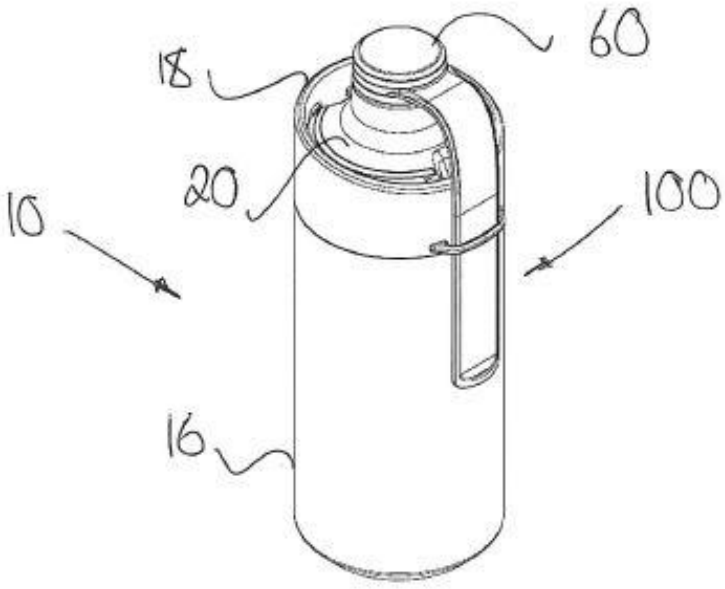

Figure 17

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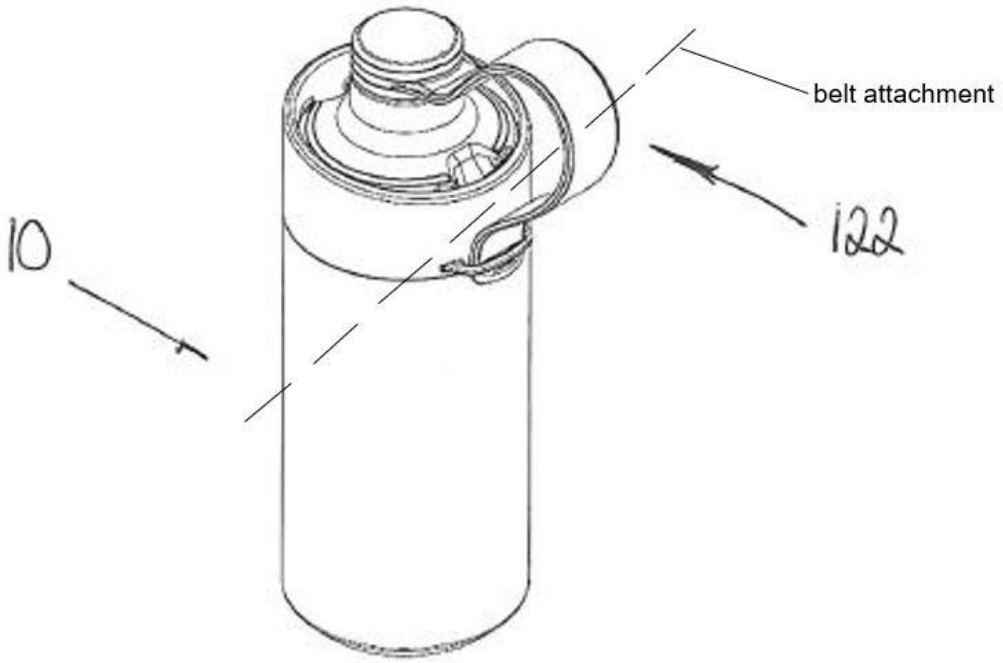

Figure 18

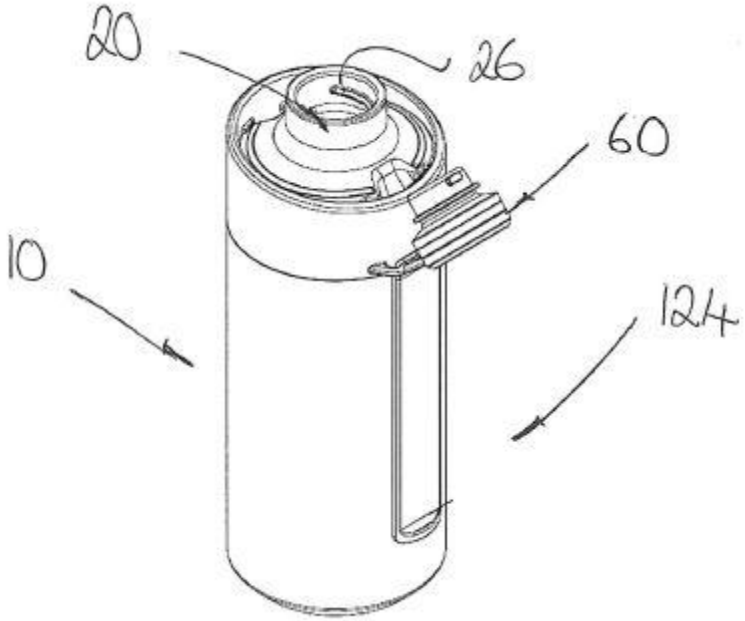

Figure 19

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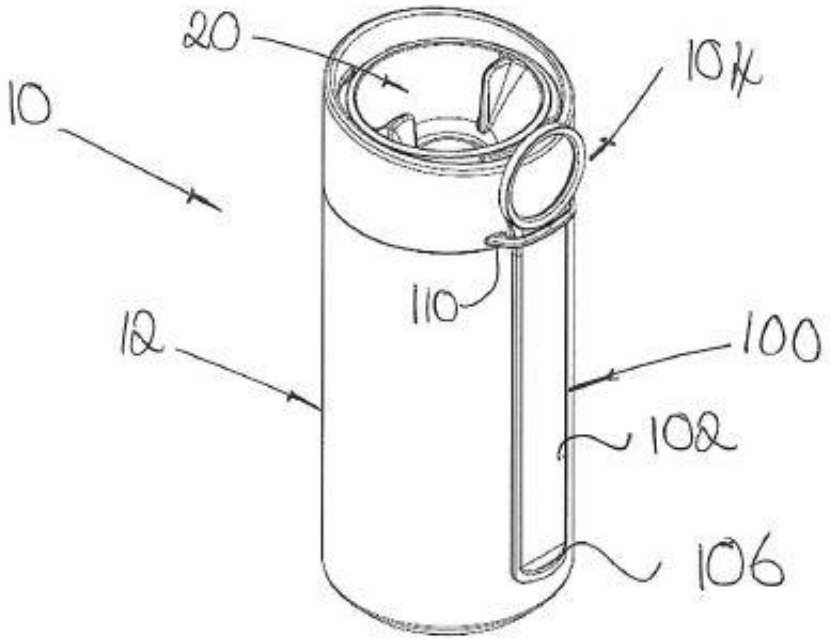

Figure 20

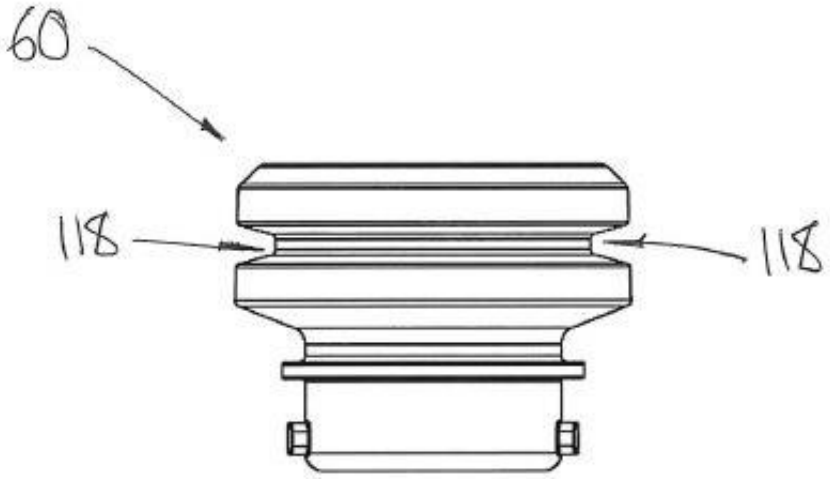

Figure 21

2022291577 22 Dec 2022

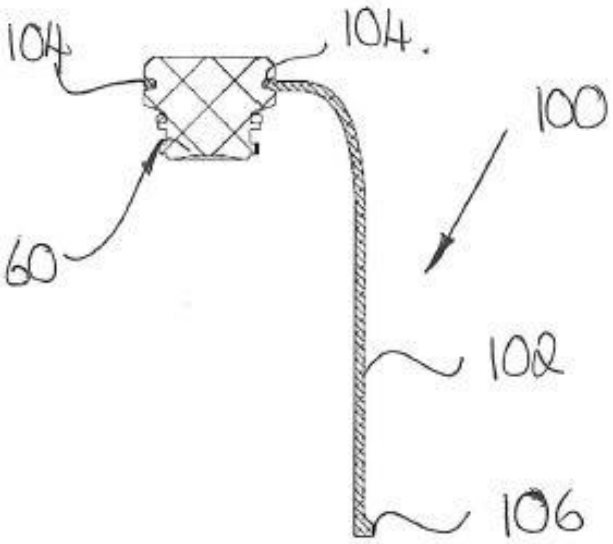

Figure 22

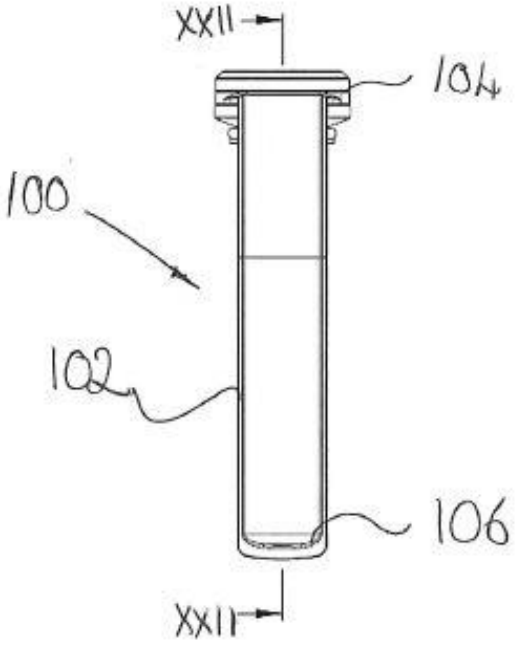

Figure 23