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(54) Title: DRINKING VESSEL WITH INTERCHANGEABLE HANDLES

(57) Abstract: A drinking vessel includes an outer vessel, an inner vessel removably received in the outer vessel, and a plurality of different types of beverage handles configured to be selectively coupled to the outer vessel.

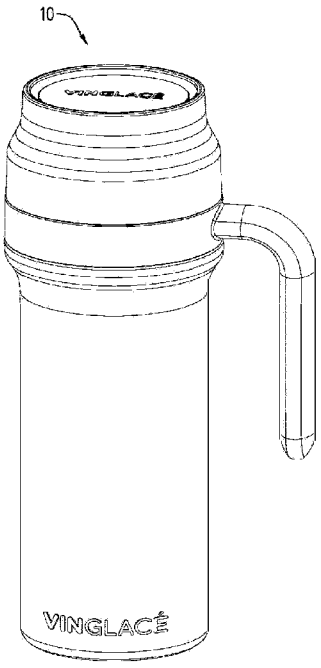

FIG. 2

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DRINKING VESSEL WITH INTERCHANGEABLE HANDLES

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to U.S. Application No. 17/300,333 filed June 30, 2023, the entire contents of which is incorporated by reference herein.

BRIEF DESCRIPTION OF THE DRAWINGS

[0002] A more particular description will be rendered by reference to exemplary embodiments that are illustrated in the accompanying figures. Understanding that these drawings depict exemplary embodiments and do not limit the scope of this disclosure, the exemplary embodiments will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

[0003] FIG. 1 is front view of a drinking vessel with a first type of beverage handle, according to an embodiment;

[0004] FIG. 2 is a top, perspective view of the drinking vessel of FIG. 1;

[0005] FIG. 3 is a top, perspective view of the drinking vessel of FIG. 1, illustrating the drinking vessel in a disassembled configuration;

[0006] FIG. 4A is a top, perspective view illustrating the drinking vessel of FIG. 1 with a second type of beverage handle;

[0007] FIG. 4B is a top, perspective view illustrating the drinking vessel of FIG. 1 with a third type of beverage handle;

[0008] FIG. 4C is a top, perspective view illustrating the drinking vessel of FIG. 1 with a fourth type of beverage handle;

[0009] FIG. 5 is a front view illustrating a drinking vessel according to an embodiment; and

[0010] FIG. 6 is a top, perspective view illustrating the drinking vessel of FIG. 5.

[0011] Various features, aspects, and advantages of the exemplary embodiments will become more apparent from the following detailed description, along with the accompanying drawings in which like numerals represent like components throughout the figures and detailed description. The various described features are not necessarily drawn to scale in the drawings but are drawn to aid in understanding the features of the exemplary embodiments.

[0012] The headings used herein are for organizational purposes only and are not meant to limit the scope of the disclosure or the claims. To facilitate understanding, reference numerals have been used, where possible, to designate like elements common to the figures.

DESCRIPTION

[0013] Reference will now be made in detail to various exemplary embodiments. Each example is provided by way of explanation and is not meant as a limitation and does not constitute a definition of all possible embodiments.

[0014] The term "coupled," as used herein, is defined as directly or indirectly connected. Occurrences of the phrase "in one embodiment," or "in one aspect," herein do not necessarily all refer to the same embodiment or aspect.

[0015] At least an embodiment of a drinking vessel (e.g., a water bottle) may be configured for detachably coupling with a plurality of different types of handles. For example, the drinking vessel may include an outer vessel and a plurality of different types of handles, such as, for example, a strap-type handle, a closed-loop type handle, an arm-type handle, or the like, each configured to be selectively coupled to the outer vessel. A user may exchange or replace one particular type of handle with another type of handle depending on their preference. In aspects, each handle may be coupled to a collar that is secured to the drinking vessel between a double-walled outer vessel and a top cap.

[0016] For purposes of illustrating features of the embodiments, embodiments of a drinking vessel 10, such as, for example, a water bottle, are introduced and referenced throughout the disclosure. The drinking vessel 10 generally includes an outer vessel 100, an inner vessel 200 (e.g., a container fabricated from glass), a cap 300, and a beverage handle 400. The outer vessel 100 may be a double-walled, vacuum sealed stainless-steel water bottle and has a top end portion 102 defining a first set of screw threads 104a and a second set of screw threads 104b positioned above the first set of screw threads 104a. The first set of screw threads 104a is configured to threadedly couple to a collar 402 of the beverage handle 400, and the second set of screw threads 104b is configured to threadedly couple to the cap 300. In aspects, the top end portion 102 of the outer vessel 100 may be devoid of threading such that the beverage handle 400 and the cap 300 may be detachably secured to the outer vessel 100 via another suitable fastening engagement, such as, for example, friction-fit engagement. The outer vessel 100 may include a shoulder 106 or stop protruding radially outward therefrom on which the collar 402 of the beverage handle 400 sits. The outer vessel 100 may be formed from plastic, metal, and various other suitable materials that may house and retain beverages. According to an aspect, the outer vessel 100 may be formed of a thermally insulating material.

[0017] The inner vessel 200 (FIG. 3) is provided concentrically within the outer vessel 100 and may be removable from the outer vessel 100. According to an aspect, the inner vessel 200 may be formed from a variety of suitable materials, such as metals, plastics and any other suitable materials for housing beverage items. According to an aspect, the inner vessel 200 is formed of

glass. The inner vessel 200 has a sipping portion configured to sit on or overlap with a top edge of the top end portion 102 of the outer vessel 100. The sipping portion protrudes upwardly from the top end portion 102.

[0018] The beverage handle 400 of the drinking vessel 10 generally includes the collar 402 and a handle body 404 coupled to or extending from the collar 402. The collar 402 may have a ring-shape and defines a screw thread on an inner surface thereof configured for threaded engagement with the first set of screw threads 104a of the outer vessel 100. The handle body 404 may be a rigid handle having a first body portion 404a extending radially outward from the collar 402, and a second body portion 404b that is longer than the first body portion 404a and which extends perpendicularly downward from the first body portion 404a. As such, the handle body 404 may assume an L-shape. The handle body 404 is fixedly secured to the collar 402 such that the collar 402 and handle body 404 may be attached to and detached from the outer vessel 100 as an integral unit. In another aspect of the present disclosure, the collar 402 may be configured to detachably couple to a plurality of different types of handle bodies such that the handle body 404 may be replaced with another type of handle body while the collar 402 remains attached to the outer vessel 100.

[0019] The cap 300 is configured to detachably couple to the top end portion 104 (FIG. 3) of the outer vessel 100 such that the collar 402 is positioned axially between the cap 300 and the shoulder 106 of the outer vessel 100 when the drinking vessel 10 is fully assembled. In aspects, the cap 300 may be coupled to the outer vessel 100 without having the beverage handle 400 also attached to the outer vessel 100.

[0020] As shown in FIGS. 4A-4C, the drinking vessel 10 further includes a plurality of different types of beverage handles 420, 430, 440 configured to be interchangeable with the beverage handle 400. Each of the different types of beverage handles 420, 430, 440 includes the collar 402 and a different or discrete type of handle body 422, 432, 442 fixedly secured to or detachably secured to the collar 402. The handle body 422 of FIG. 4A includes a strap having free ends attached to diametrically opposed sides of the collar 402. The handle body 432 of FIG. 4B is a closed loop handle attached to the collar 402. The handle body 442 of FIG. 4C is a closed loop strap having two ends that are both coupled to the same side of the collar 402. It is contemplated that other types and configurations of handle bodies may be coupled to the outer vessel 100 of the drinking vessel 10.

[0021] As shown in FIGS. 5 and 6, another embodiment of a drinking vessel 12 is provided that generally includes an outer vessel 14, an inner vessel (not shown) similar to the inner vessel 200, a cap 16, and a handle body 20 permanently affixed to and extending from the outer vessel 14.

[0022] This disclosure, in various embodiments, configurations and aspects, includes components, methods, processes, systems, and/or apparatuses as depicted and described herein, including various embodiments, sub-combinations, and subsets thereof. This disclosure contemplates, in various embodiments, configurations and aspects, the actual or optional use or inclusion of, e.g., components or processes as may be well-known or understood in the art and consistent with this disclosure though not depicted and/or described herein.

[0023] The phrases "at least one", "one or more", and "and/or" are open-ended expressions that are both conjunctive and disjunctive in operation. For example, each of the expressions "at least one of A, B and C", "at least one of A, B, or C", "one or more of A, B, and C", "one or more of A, B, or C" and "A, B, and/or C" means A alone, B alone, C alone, A and B together, A and C together, B and C together, or A, B and C together.

[0024] In this specification and the claims that follow, reference will be made to a number of terms that have the following meanings. The terms "a" (or "an") and "the" refer to one or more of that entity, thereby including plural referents unless the context clearly dictates otherwise. As such, the terms "a" (or "an"), "one or more" and "at least one" can be used interchangeably herein. Furthermore, references to "one embodiment", "some embodiments", "an embodiment" and the like are not intended to be interpreted as excluding the existence of additional embodiments that also incorporate the recited features. Approximating language, as used herein throughout the specification and claims, may be applied to modify any quantitative representation that could permissibly vary without resulting in a change in the basic function to which it is related. Accordingly, a value modified by a term such as "about" is not to be limited to the precise value specified. In some instances, the approximating language may correspond to the precision of an instrument for measuring the value. Terms such as "first," "second," "upper," "lower" etc. are used to identify one element from another, and unless otherwise specified are not meant to refer to a particular order or number of elements.

[0025] As used herein, the terms "may" and "may be" indicate a possibility of an occurrence within a set of circumstances; a possession of a specified property, characteristic or function; and/or qualify another verb by expressing one or more of an ability, capability, or possibility associated with the qualified verb. Accordingly, usage of "may" and "may be" indicates that a modified term is apparently appropriate, capable, or suitable for an indicated capacity, function, or usage, while taking into account that in some circumstances the modified term may sometimes not be appropriate, capable, or suitable. For example, in some circumstances an event or capacity can be expected, while in other circumstances the event or capacity cannot occur - this distinction is captured by the terms "may" and "may be."

[0026] As used in the claims, the word "comprises" and its grammatical variants logically also subtend and include phrases of varying and differing extent such as for example, but not limited thereto, "consisting essentially of" and "consisting of." Where necessary, ranges have been supplied, and those ranges are inclusive of all sub-ranges therebetween. It is to be expected that the appended claims should cover variations in the ranges except where this disclosure makes clear the use of a particular range in certain embodiments.

[0027] The terms "determine", "calculate" and "compute," and variations thereof, as used herein, are used interchangeably and include any type of methodology, process, mathematical operation or technique.

[0028] This disclosure is presented for purposes of illustration and description. This disclosure is not limited to the form or forms disclosed herein. In the Detailed Description of this disclosure, for example, various features of some exemplary embodiments are grouped together to representatively describe those and other contemplated embodiments, configurations, and aspects, to the extent that including in this disclosure a description of every potential embodiment, variant, and combination of features is not feasible. Thus, the features of the disclosed embodiments, configurations, and aspects may be combined in alternate embodiments, configurations, and aspects not expressly discussed above. For example, the features recited in the following claims lie in less than all features of a single disclosed embodiment, configuration, or aspect. Thus, the following claims are hereby incorporated into this Detailed Description, with each claim standing on its own as a separate embodiment of this disclosure.

[0029] Advances in science and technology may provide variations that are not necessarily express in the terminology of this disclosure although the claims would not necessarily exclude these variations.

CLAIMS

What is claimed is:

1. A drinking vessel, comprising:

an outer vessel;

an inner vessel configured for receipt in the outer vessel; and

a handle detachably coupled to the outer vessel, the handle comprising:

a collar configured to be coupled to the outer vessel; and

a handle body coupled to the collar.

2. The drinking vessel according to claim 1, wherein:

the outer vessel comprises a first screw thread; and

the collar comprises a collar screw thread configured for threaded engagement with the first screw thread.

3. The drinking vessel according to claim 1, further comprising a cap detachably coupled to the outer vessel.

4. The drinking vessel according to claim 3, wherein:

the outer vessel comprises:

a first screw thread; and

a second screw thread positioned above the first screw thread;

the collar comprises a collar screw thread configured for threaded engagement with the first screw thread; and

the cap is configured to threadedly couple to the second screw thread.

5. The drinking vessel according to claim 3, wherein the outer vessel includes a shoulder extending radially outward therefrom, the collar being positioned axially between the cap and the shoulder.

6. The drinking vessel according to claim 1, wherein the handle body is one of:

a rigid, L-shaped handle body;

a closed-loop handle body; and

a strap.

7. The drinking vessel according to claim 1, wherein the inner vessel comprises a glass material.

8. The drinking vessel according to claim 1, wherein the inner vessel comprises a sipping portion that overlaps with a top end portion of the outer vessel.

9. The drinking vessel according to claim 1, wherein the collar is ring shaped.

10. A drinking vessel and handle set, comprising:

an outer vessel comprising a first screw thread provided on a top end portion;

an inner vessel configured for receipt in the outer vessel;

a first beverage handle comprising:

a first collar configured to be selectively, threadedly coupled to the screw thread of the outer vessel; and

a first type of handle body coupled to the first collar; and

a second beverage handle including:

a second collar configured to be selectively, threadedly coupled to the screw thread of the outer vessel; and

a second type of handle body coupled to the second collar, the second type of handle body being different from the first type of handle body.

11. The drinking vessel and handle set of claim 10, further comprising further comprising a cap configured to detachably couple to the outer vessel.

12. The drinking vessel and handle set of claim 11, wherein the outer vessel includes a shoulder extending radially outward therefrom.

13. The drinking vessel and handle set of claim 12, wherein each of the first collar and the second collar is configured to be positioned axially between the cap and the shoulder.

14. The drinking vessel and handle set of claim 10, wherein:

the first type of handle body comprises one of:

a rigid, L-shaped handle body;

a closed-loop handle body; or

a strap; and

the second type of handle body comprises a different one of:

the rigid, L-shaped handle body;

the closed-loop handle body; or

the strap.

15. The drinking vessel and handle set of claim 10, wherein the inner vessel comprises a glass material.

16. The drinking vessel and handle set of claim 10, wherein the inner vessel comprises a sipping portion that overlaps with a top end portion of the outer vessel.

17. The drinking vessel and handle set of claim 10, wherein each of the first collar and the second collar is ring-shaped.

18. A method changing a handle on a drinking vessel, the method comprising:

providing a drinking vessel comprising:

an outer vessel comprising a first screw thread provided on a top end portion;

an inner vessel configured for receipt in the outer vessel;

a first handle comprising:

a first collar threadedly engaged with the first screw thread; and

a first handle body coupled to the first collar;

rotating the first collar relative to the top end portion of the outer vessel to disengage the first collar from the first screw thread;

providing a second handle comprising:

a second collar; and

a second handle body coupled to the second collar;

wherein a type of the second handle body is different from a type of the first handle body; and

rotating the second collar relative to the top end portion of the outer vessel to threadedly engage the second collar with the first screw thread.

19. The method of claim 18, wherein the outer vessel further comprises a second screw thread positioned above the first screw thread on the top end portion of the outer vessel; and

the method further comprises threadedly engaging a cap with the second thread portion such that the second collar is positioned axially between a shoulder of the outer vessel and the cap.

20. The method of claim 18, wherein:

the type of the first handle body comprises one of:

a rigid, L-shaped handle body;

a closed-loop handle body; or

a strap; and

the type of the second handle body comprises a different one of:

the rigid, L-shaped handle body;

the closed-loop handle body; or

the strap.

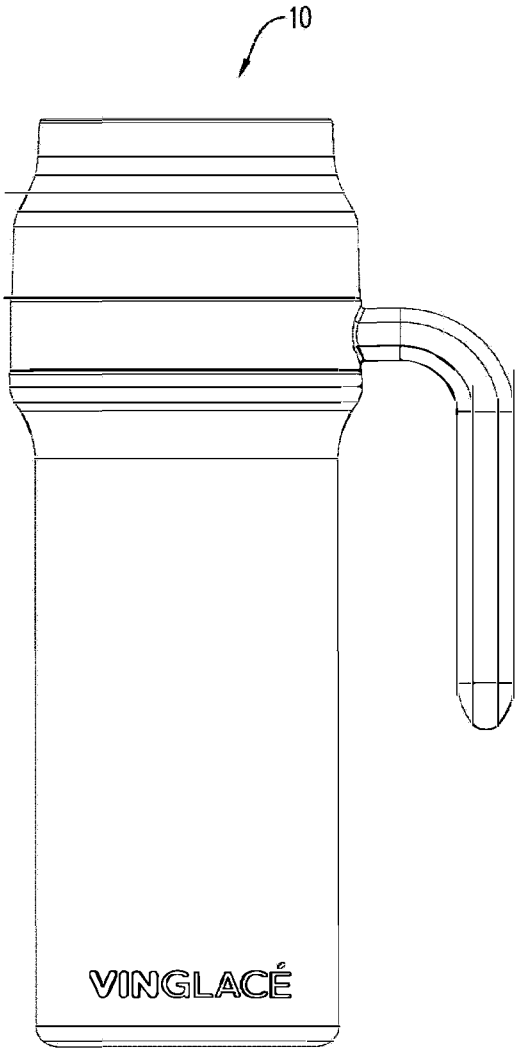

FIG. 1

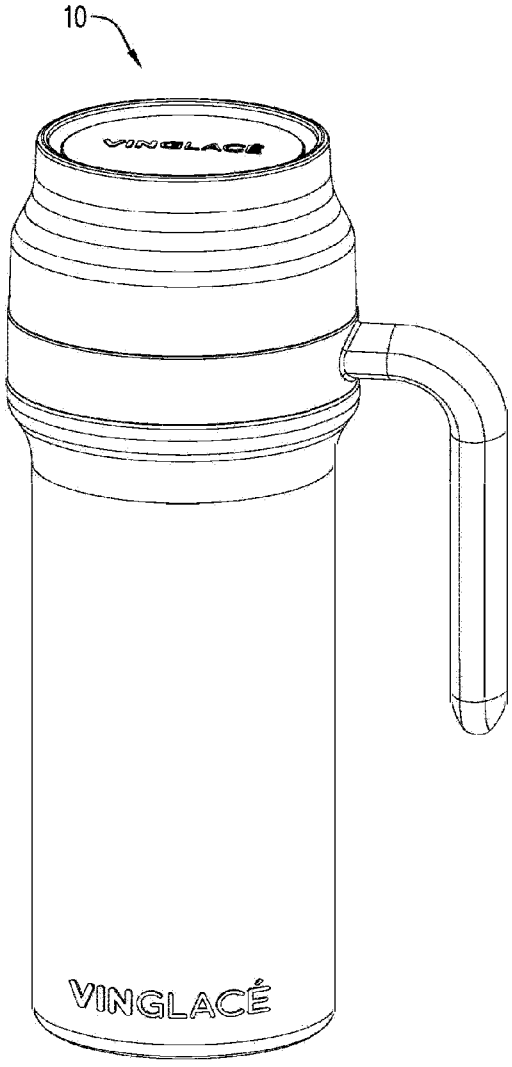

FIG. 2

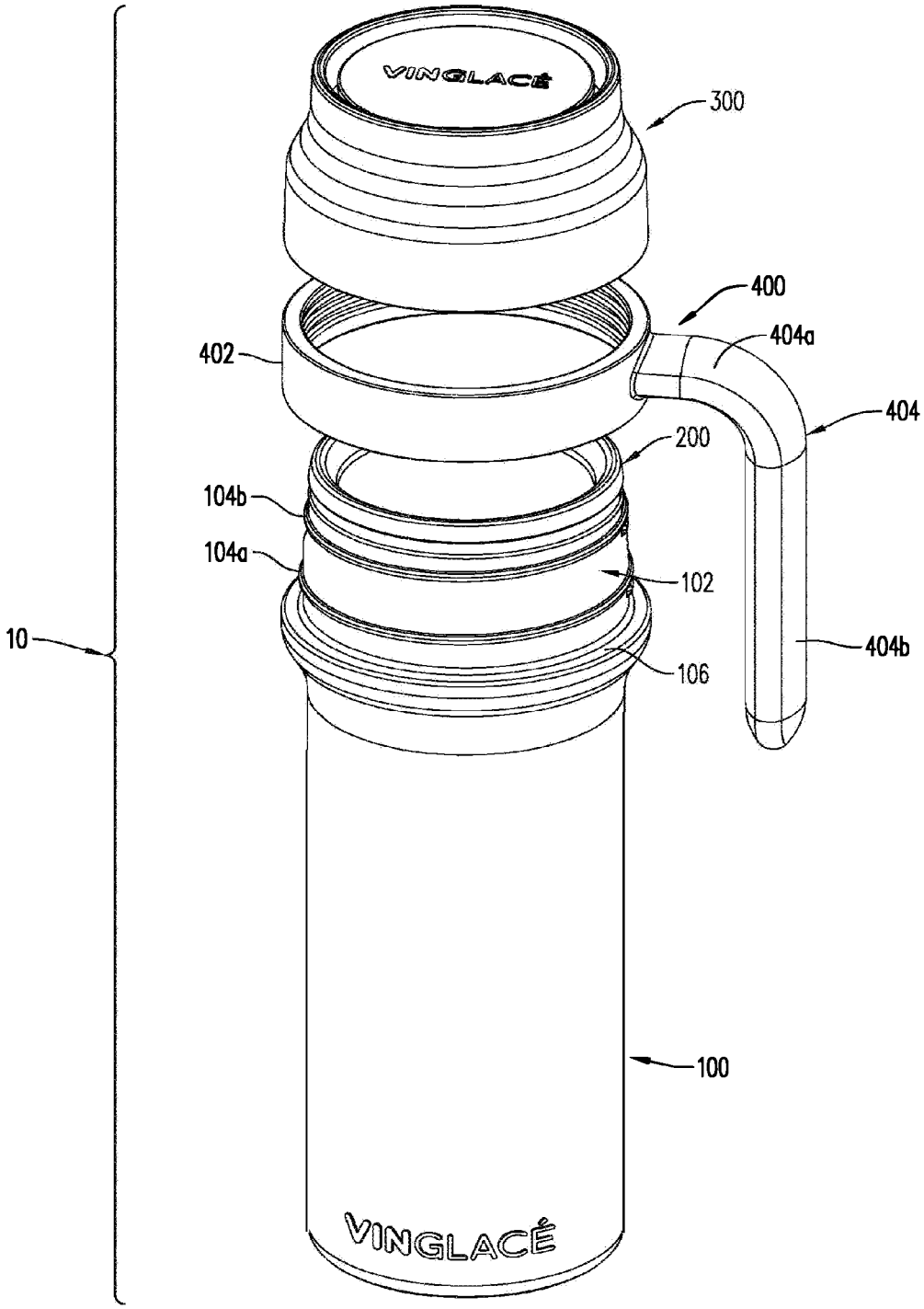
VINGLACÉ
300
400
404a
402
404
200
104b
104a
102
10
404b
106
100
VINGLACÉ

FIG. 3

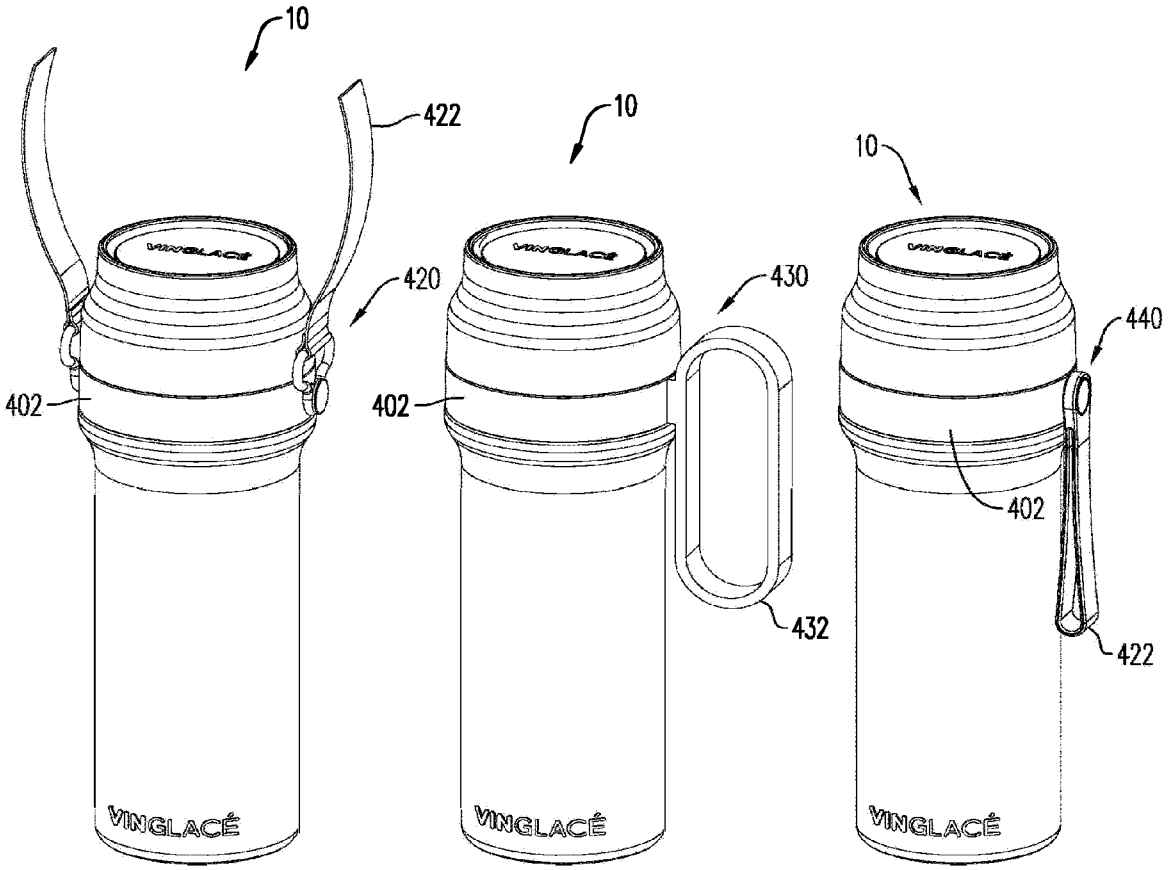

FIG. 4A FIG. 4B FIG. 4C

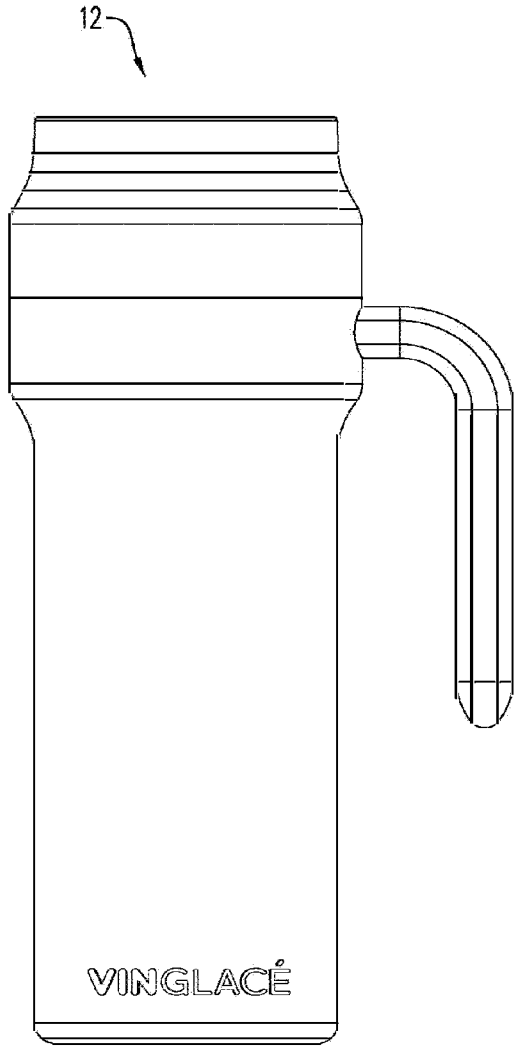

FIG. 5

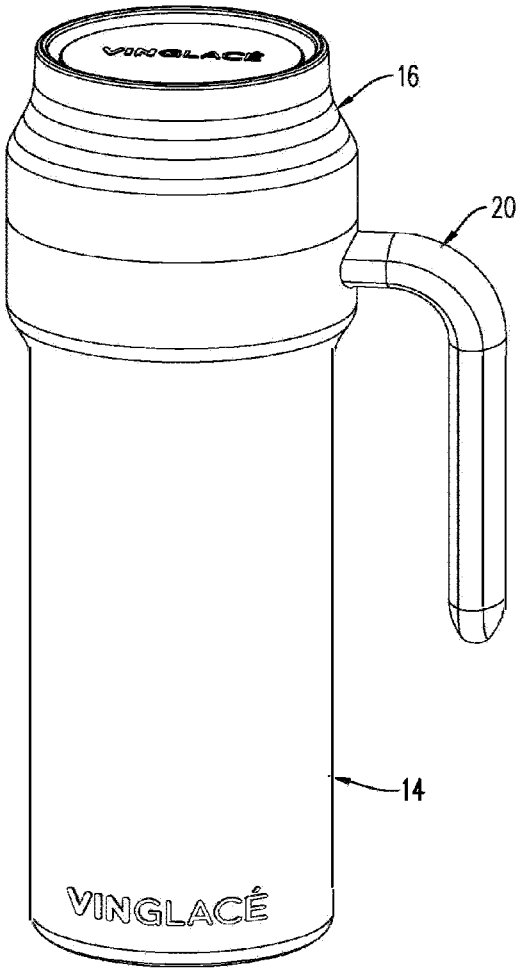

FIG. 6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2024/036325

A. CLASSIFICATION OF SUBJECT MATTER

IPC: ***A47J 41/02*** (2024.01); ***B65D 23/10*** (2024.01); ***B65D 25/28*** (2024.01)

CPC: ***A47J 41/02; B65D 25/28; B65D 23/10***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Search History Document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

See Search History Document

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History Document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2007/0272651 A1 (DIPASQUALE et al.) 29 November 2007 (29.11.2007) entire document	1-20
Y	US 2005/0084633 A1 (BABA et al.) 21 April 2005 (21.04.2005) entire document	1-20
A	US 2010/0294764 A1 (KEMPER et al.) 25 November 2010 (25.11.2010) entire document	1-20
A	US 2019/0307292 A1 (VINGLACE LLC) 10 October 2019 (10.10.2019) entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:

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"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
06 September 2024 (06.09.2024)	**19 September 2024 (19.09.2024)**

Name and mailing address of the ISA/US	Authorized officer
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