ABSTRACT

Provided is a multiple-function, stackable spice container having one or more containers that are configured to be stacked, where the containers are attached through complementary threaded portions. The apparatus also includes a removable accessory, configured to removably engage the complementary threaded portions. An apparatus may alternatively utilize one or more containers and an attaching structure for coupling the container and an accessory, configured to removably engage one of the containers at the attaching structure.
STACKABLE SPICE CONTAINER ASSEMBLY HAVING A REMOVABLE ACCESSORY

TECHNICAL FIELD

[0001] The present disclosure is generally related to outdoor cooking and, more particularly, related to apparatus for providing a stackable spice container assembly having a universal accessory mount.

BACKGROUND

[0002] By definition, outdoor cooking is performed in an environment that lacks many of the conveniences of a modern kitchen. For example, outdoor cooking environments may lack the proximity to storage areas for spices, seasonings, and other food flavoring ingredients. Additionally, working space adjacent the cooking surface, which can be used for temporary placement of cooking implements, spices, seasonings, etc., may be severely limited. Examples of such cooking implements include, for example, forks, spatulas, and tongs used for outdoor grilling. In addition to the spices and cooking implements, an outdoor grilling environment may benefit from supplemental illumination, especially proximate the cooking surface. The inclusion of multiple spices and seasonings, a variety of cooking implements and supplemental illumination presents significant storage and workspace challenges.

[0003] Previous attempts to solve multiple container related challenges include U.S. Pat. No. 5,887,740, which teaches stackable cylindrical containers for storing seasonings. The '740 patent discloses a container with a reduced-diameter tubular mouth having a corresponding threaded cap and a bottom wall having a circular well configured to receive the cap of another container. Similarly, U.S. Pat. No. 3,485,416 discloses a combination salt and pepper shaker where the two cylindrical containers are frictionally coupled at their bottoms by an intermediate coupling member. Further, published U.S. Patent Application 2004/0178161 discloses an interconnecting container assembly where each container includes a threaded opening with a dispensing cap on one end and a threaded recess on the other end. Although the '740 and the '416 patents and the '161 published patent application address some of the storage problems associated with multiple containers of spices and seasonings, they fail to address the integration of other outdoor cooking or storage aids. Regarding other devices integrated into a container, U.S. Pat. No. 3,240,384 teaches a detachable cap having an integral supporting means and U.S. Pat. No. 5,318,177 discloses a multifunction container that includes a light source. The '384 and the '177 patents both, however, fail to address the problem of storing and using multiple types of devices and multiple spice or seasoning containers.

[0004] Thus, a heretofore-unaddressed need exists in the industry to address the aforementioned deficiencies and inadequacies.

SUMMARY

[0005] Embodiments of the present disclosure provide a multiple-function, stackable spice container, comprising: a plurality of containers, configured to be stacked, each of the plurality of containers having at least one side wall, a bottom wall, and a plurality of complementary threaded portions, and a removable accessory mount, configured to removably engage one of the plurality of complementary threaded portions.

[0006] Embodiments of the present disclosure can also be viewed as an apparatus for providing a multiple-function, stackable spice container, comprising: at least one container, configured to be stacked, the at least one container having at least one side wall, a bottom wall, and an attaching structure configured to receive at least one other container; and an accessory, configured to removably engage one of the at least one container at the attaching structure.

[0007] Other systems, methods, features, and advantages of the present disclosure will be or become apparent to one with skill in the art upon examination of the following drawings and detailed description. It is intended that all such additional systems, methods, features, and advantages be included within this description, be within the scope of the present disclosure, and be protected by the accompanying claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] Many aspects of the disclosure can be better understood with reference to the following drawings. The components in the drawings are not necessarily to scale, emphasis instead being placed upon clearly illustrating the principles of the present disclosure. Moreover, in the drawings, like reference numerals designate corresponding parts throughout the several views.

[0009] FIG. 1 is a perspective view of an exemplary embodiment of a configuration of an apparatus, as disclosed herein.

[0010] FIG. 2 is a perspective view of an exemplary embodiment of another configuration of the apparatus of FIG. 1, as disclosed herein.

[0011] FIG. 3 is a perspective view of an exemplary embodiment of another configuration of the apparatus of FIG. 1, as disclosed herein.

[0012] FIG. 4 is a perspective view of an exemplary embodiment of another configuration of the apparatus of FIG. 1, as disclosed herein.

[0013] FIG. 5 is a perspective view of an exemplary embodiment of a single container, as disclosed herein.

[0014] FIG. 6 is a perspective view of an exemplary embodiment of a coupling member as disclosed herein.

[0015] FIG. 7 is a partial exploded perspective view of an exemplary embodiment of a container assembly, as disclosed herein.

[0016] FIG. 8 is a partial, side cut-away view of an alternative embodiment, as disclosed herein.

[0017] FIG. 9 is an exploded perspective view of an accessory and coupling member of an exemplary embodiment, as disclosed herein.

[0018] FIG. 10 is an exploded perspective view of an accessory and coupling member of another exemplary embodiment, as disclosed herein.

DETAILED DESCRIPTION

[0019] Having summarized various aspects of the present disclosure, reference will now be made in detail to the
description of the disclosure as illustrated in the drawings. While the disclosure will be described in connection with these drawings, there is no intent to limit it to the embodiment or embodiments disclosed herein. On the contrary, the intent is to cover all alternatives, modifications and equivalents included within the spirit and scope of the disclosure as defined by the appended claims.

[0020] Reference is made to FIG. 1, which is a perspective view of an exemplary embodiment of a configuration of a multiple function stackable spice container. The multiple function stackable spice container 100 includes multiple containers 102 removably attached to one another in a stacked arrangement. The containers 102 each include at least one side wall 103 and a bottom wall 105. Although the side wall 103, as illustrated, is configured as a generally cylindrical geometry, the side wall configuration can also be polygonal, elliptical, or another geometry within the scope and spirit of the claims. The illustration of FIG. 1 depicts an illumination device 104 attached to one end of the multiple function stackable spice container. A perspective view of another configuration of the multiple function stackable spice container is illustrated in FIG. 2. The hook configured multiple function stackable spice container 110 includes multiple containers 102, as described in reference to FIG. 1, and a hook 112 attached to one end of the multiple function stackable spice container 110. The hook 112 is configured such that when the multiple function stackable spice container 110 is not in use, the apparatus can be stored by hanging the container from a lanyard or the like, or hung on a radially extending protrusion as might be found on a barbecue grill shelf, without using any of the limited work space that typically characterizes an outdoor cooking environment.

[0021] Reference is now made to FIGS. 3 and 4, which are perspective views of exemplary embodiments of other configurations of the apparatus of FIG. 1. The configuration illustrated in FIG. 3 includes, in addition to the multiple containers 102, a spatula 122 that is removably attached to one end of the multiple function stackable spice container 120. Similarly, FIG. 4 illustrates a fork configured multiple function stackable spice container 130 having a fork 132 attached to one end of the containers 102. Although not shown, many different types and configurations of cooking implements can be utilized within the scope and spirit of this disclosure. For example, instead of a fork or a spatula, the accessory attached to the end of the multiple function stackable spice container can be tongs, a knife blade, basting brush, etc.

[0022] While the multiple function stackable spice container 130 is illustrated as utilizing multiple containers 102 in a stacked configuration with a single mounted accessory, the use of a single container 102 in conjunction with an accessory is contemplated within the scope and spirit of this disclosure. Further, different single containers 102 can each be utilized with different accessories. For example, one single container 102 can be attached to an illumination device while another container 102 can be attached to a fork.

[0023] Reference is now made to FIG. 5, which is a perspective view of an exemplary embodiment of a single container as disclosed herein. The container 140 includes a side wall 141, which is a single wall in the case of a cylindrical configuration, and a bottom wall 143. The container 140 also includes at least one slot 142 formed in or mounted to the side wall 141 adjacent the bottom wall 143. The slot 142 can be formed partially through the side wall 141 where the slot 142 is located above the bottom wall 143. Alternatively, where the side wall 141 extends below the bottom wall 143 and the slot 142 is also below the bottom wall 143, the slot may be formed completely through the side wall 141. Further, the side wall 141 can include a reduced diameter section 139 adjacent the bottom wall 143.

[0024] The container 140 includes an open end 145 having an external threaded portion 144 formed in or attached to the side wall 141 adjacent the open end 145. The container 140 can also be configured to have a non-cylindrical geometry such that the container 140 can include multiple side walls 141. The container can be constructed of a variety of metallic or non-metallic materials using a variety of processes including, but not limited to, casting, molding, forming, bending, and extruding among others. In addition to a threaded engagement, the interlock configuration for attaching multiple containers 140 together can also include, for example, a press-fit or a bayonet mount, among others. Similarly, attachment of an accessory to a container can include these alternative interlock configurations as well.

[0025] Reference is now made to FIG. 6, which is a perspective view of an exemplary embodiment of a coupling member as disclosed herein. The coupling member 150 can also include an optional delivery restriction component where the delivery of the spice or seasoning is to be restricted through, for example, grating holes 156. The coupling member 150 of some embodiments includes an internal threaded portion 152 that is configured to receive the complementary threads 144 adjacent the open end of a container, as discussed above regarding FIG. 5. The coupling member also includes one or more protrusions 154 formed on the inside adjacent an end of the coupling member. The protrusions 154 are configured to be received by slots 142 formed into the side wall adjacent the bottom of a container, as discussed above regarding FIG. 5. When the slots 142 receive the protrusions 154, the coupling member can be secured to the bottom of the container using a rotational movement. The protrusions 154 are configured to be received by the slots on the bottom or closed end of a container and the internal threaded portion 152 is configured to receive the threaded top or open end of another container. Alternatively, the coupling member 150 can be configured with a solid cap having no grating holes such that an open ended container attached to the coupling member 150 will remain closed even when removed from an adjacent container. Similarly, multiple coupling members 150 of solid and grated configurations can be selectively used as needed within the same assembly. The coupling member 150 can be produced using similar materials and processes as described above in reference to the container. Further, the container and coupling member can be configured to utilize threaded sections for both top and bottom engagements or to utilize the protrusion/slot or bayonet arrangement described above for both the top and bottom engagements.

[0026] Reference is now made to FIG. 7, which is an exploded perspective view of another exemplary embodiment of a container assembly. A first container 160 includes a top threaded portion 162 formed in or attached to the side wall 161 adjacent the open end 163 and a bottom threaded portion 164 formed in or attached to the side wall 161.
adjacent a bottom wall 165 (not visible from this view). A second container 170 similarly includes a top threaded portion 172 formed in or attached to the side wall 171 of the second container 170 adjacent the open end 173 and a bottom threaded portion 174 formed in or attached to the side wall 171 adjacent the bottom wall 175 (not visible in this view). A coupling member 166 is configured with a first threaded portion 167 and a second threaded portion 169, each of which are complementary to the threaded portions 162, 164, 172, and 174 of the first and second containers 160, 170. Additionally, the coupling member 166 can include an optional grating 168 for restricting the distribution of granular or particulate spices and seasonings. When assembled, the bottom threaded portion 164 of the first container is threadably received by the first threaded portion 167 of the coupling member 166 and the top threaded portion 172 of the second container 170 is threadably received by the second threaded portion 169 of the coupling member 166.

[0027] Reference is now made to FIG. 8, which is a partial, side cut-away view of an alternative embodiment. Illustrated is a partial view of a first container 182 having a side wall 184 and a bottom wall 186. The first container 182 is removably attached to a coupling member 190, which includes a protrusion 192 configured to be received by a slot 194, which is formed in the side wall 184 of the first container 182. The coupling member 190 is also removably attached to a second container 183 having a side wall 185. The second container 183 includes a slot 195 for receiving a protrusion 196, which is formed in the coupling member 190. The coupling member 190, in this exemplary embodiment, receives the bottom or closed end of the first container 182 and the top or open end 188 of the second container 183. The coupling member can also include a partition 197, which may include, for example, grating holes 198. A container 182, 183 is removably attached to the coupling member 190 by inserting the one or more protrusions 192, 196 into corresponding slots 194, 195 and rotating the container 182, 183 relative to the coupling member 190. This protrusion and slot arrangement may also be referred to as a bayonet style arrangement.

[0028] The protrusion and slot configuration can be reversed such that the protrusions can be formed in the container wall and slots can be formed in the coupling members. Alternatively, the containers can be secured to the coupling members without a slot/protrusion configuration, where the attachment is maintained through frictional engagement alone.

[0029] Reference is now made to FIG. 9, which is an exploded perspective view of an accessory and coupling member of an exemplary embodiment. The accessory 202 utilizes a hook 204 attached to a mount 201, which includes slots 203. The coupling member 200 includes protrusions 205 that are configured to be received by the slots 203. The coupling member 200 can then be threadably attached to the top of a spice container (not shown). Similarly, reference is now made to FIG. 10, which is an exploded perspective view of an accessory and coupling member of another exemplary embodiment. The accessory 212 utilizes, for example, a fork 214 attached to a mount 211, which has a retaining channel 213. The coupling member 210 is configured to receive the accessory 212 such that the retaining channel 213 engages a first retaining rib 215. The coupling member 210 also includes a second retaining rib 216 configured to engage a retaining channel formed in a container (not shown). One of ordinary skill in the art knows or will know that any combination of the coupling techniques disclosed herein are contemplated within the scope and spirit of this disclosure.

[0030] In the use and operation of an embodiment, as illustrated in FIGS. 1-4, where a spice or seasoning container in the one of the containers 102 is needed for cooking, the container or accessory attached to the top of container 102 is removed to access the spice or seasoning within. Similarly, where the user requires additional light for the outdoor grilling environment, the illumination accessory is attached to the multiple-function stackable spice container and the light is directed to the areas that lack sufficient illumination. Similarly, a hook accessory can be attached to the multiple-function spice container for providing convenient storage. Alternatively, a user can utilize one of any number of different cooking implements, including, but not limited to a spatula, a fork, or tongs, among others.

[0031] It should be emphasized that the above-described embodiments of the present disclosure, particularly, any illustrated embodiments, are merely possible examples of implementations, merely set forth for a clear understanding of the principles of the disclosure. Many variations and modifications may be made to the above-described embodiment(s) of the disclosure without departing substantially from the spirit and principles of the disclosure. All such modifications and variations are intended to be included herein within the scope of this disclosure and the present disclosure and protected by the following claims.

1. An apparatus for providing a multiple-function, stackable spice container, comprising:

   - at least one container; configured to be stacked, the at least one container having at least one side wall, a bottom wall, and an attaching structure configured to receive at least one other container; and
   - an accessory, configured to removably engage one of the at least one container at the attaching structure.

2. The apparatus of claim 1, wherein the attaching structure comprises:

   - a first engagement section having at least one internally directed protrusion;
   - wherein the at least one container comprises at least one slot, configured in the at least one side wall adjacent the bottom wall; and
   - wherein the at least one slot is configured to receive the at least one protrusion in a rotationally actuated frictional engagement.

3. The apparatus of claim 2, wherein the attaching structure further comprises:

   - a second engagement section having an internally threaded portion;
   - wherein the at least one container comprises a complementary externally threaded portion formed in the at least one side wall adjacent an open end; and
   - wherein the complementary externally threaded portion is configured to receive the internally threaded portion.
4. The apparatus of claim 2, wherein the attaching structure further comprises:

a second engagement section having at least one internally directed protrusion;

wherein the at least one container comprises at least one slot, configured in the at least one side wall adjacent an open end; and

wherein the at least one slot is configured to receive the at least one protrusion in a rotationally actuated frictional engagement.

5. The apparatus of claim 2, wherein the accessory further comprises at least one slot, configured in a side wall; and

wherein the at least one slot is configured to receive the at least one protrusion in a rotationally actuated frictional engagement.

6. The apparatus of claim 1, wherein the at least one container is generally cylindrical.

7. The apparatus of claim 1, wherein the accessory comprises an illumination device.

8. The apparatus of claim 1, wherein the accessory comprises a hanger, configured to removably attach the at least one container to a structure for convenient storage.

9. The apparatus of claim 1, wherein the accessory further comprises a means for manipulating food during the cooking process.

10. The apparatus of claim 9, wherein the means for manipulating comprises a fork.

11. An apparatus for providing a multiple-function, stackable spice container, comprising:

a plurality of containers, configured to be stacked, each of the plurality of containers having at least one side wall, a bottom wall, and a plurality of complementary threaded portions; and

a removable accessory, configured to removably engage one of the plurality of complementary threaded portions.

12. The apparatus of claim 10, wherein the plurality of complementary threaded portions comprises:

an inside threaded portion configured at the open end of each of the plurality of containers;

an outside threaded portion configured at the closed end of each of the plurality of containers; and

wherein the inside threaded portion of a first container is configured to receive the outside threaded portion of a second container.

13. The apparatus of claim 10, wherein the plurality of complementary threaded portions are formed in the at least one side wall of each of the plurality of containers.

14. The apparatus of claim 10, wherein the plurality of complementary threaded portions are formed independently and attached to each of the plurality of containers.

15. The apparatus of claim 10, wherein the removable accessory comprises a hook for hanging the plurality of containers.

16. The apparatus of claim 10, wherein the removable accessory comprises a portable illuminating device.

17. The apparatus of claim 10, wherein the removable accessory comprises a grill cooking implement.

18. The apparatus of claim 17, wherein the grill cooking implement comprises a spatula.

19. The apparatus of claim 18, wherein the grill cooking implement comprises a fork.

20. The apparatus of claim 18, wherein the grill cooking implement comprises a pair of tongs.

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