The apparatus of the present invention implements a canteen cup cover that can be deployed in conjunction with the standard military issue canteen and cup. The canteen cup cover of the present invention is most preferably manufactured from a durable metallic material, such as stainless steel. The canteen cup cover has one or more integrated slit-like apertures and may be selectively placed over and removed from the canteen cup, thereby providing enhanced functionality for the canteen cup for certain cooking applications. In addition, the most preferred embodiments of the canteen cup cover comprise an integrated signaling mirror. A specific cooking method, using the canteen cup cover is also disclosed.
FIG. 1
Prior Art
400

410

PUT LIQUID IN CANTEEN CUP

420

PUT FOOD ITEM IN CANTEEN CUP

430

PLACE COVER ON CANTEEN CUP

440

HEAT CANTEEN CUP CONTENTS

450

STRAIN LIQUID FROM CANTEEN CUP

FIG. 4
FIG. 5
CANTEEN CUP COVER WITH INTEGRATED STRAINER AND SIGNALING MIRROR

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention
[0002] The present invention relates generally to the use of portable water storage devices and more particularly to an apparatus used in conjunction with a standard military-style canteen.
[0003] 2. Background Art
[0004] The use of portable water storage containers such as the flask and the canteen is well known, with many varieties being made available for use all over the world. One of the most well known versions is the standard military issue canteen employed by the military forces of the United States of America and other countries as well. The standard design of this canteen has not changed for decades and is well known to all those who have served in the various branches of the military. The canteen is used to store and transport water or other beverages so that the user of the canteen will have ready access to liquids on an as-needed or as-desired basis.

[0005] In one of the most commonly known embodiments of the standard military issue canteen, the canteen is sized so as to “nestle” into a cup that is specifically designed to receive the canteen. In this embodiment, both the canteen and the cup have a substantially rounded kidney-shaped or reniform cross section, thereby adapting the canteen for deployment in conjunction with a belt to be worn on the hip. In this most basic form, the canteen is typically fitted with a screw on lid and the canteen is removable placed into the form-fitting cup portion. The form-fitting cup portion may be used to contain liquid poured from the canteen, thereby providing liquid for consumption. The reniform cross section provides a canteen may be worn against the waist/hip of a human and thereby provides for a canteen that can be comfortably carried on the hip in close proximity to the body.

[0006] While the basic design of the standard military issue canteen has been broadly accepted over the years, the presently known military canteen is not without certain drawbacks. This situation is evidenced by the large number of accessory objects that have been developed for use with the standard military issue canteen. For example, cups with foldable and/or retractable handles have been implemented. Various types of canteen covers, including insulated covers to keep the contents of the canteen hot or cold, have also been developed and implemented with some degree of success. In addition, various types of heating elements, drink-through the-cap straws, etc. have also been adopted in a wide variety of applications.

[0007] While these various adaptations for improving the functionality of the canteen have shown various levels of adoption, some shortcomings remain. For example, it is not uncommon for the canteen cup to be used by its owner as a cooking vessel. In this application, the canteen cup may be filled with a liquid and placed over a heat source such as an open flame in order to heat the liquid. This approach has been used for many years by soldiers to prepare food such as rice, beans, etc. While the canteen cup is adaptable for use as a cooking vessel, it is not ideally suited for this application and most users have experienced certain drawbacks when using a canteen cup as a cooking vessel.

[0008] One issue associated with the use of a canteen cup as a cooking vessel is the relatively poor heat retention quality of the canteen cup. In order to keep the weight of the canteen and the associated canteen cup as low as possible, the canteen and the cup are typically manufactured from a relatively thin-walled metal (typically stainless steel). This means that once the canteen cup has been removed from the heat source, the temperature of the liquid or other contents of the canteen cup will tend to drop quite rapidly.

[0009] This condition is only exacerbated by the fact that the standard canteen cup does not have any type of lid or cover to keep the heat in during the cooking process, allowing the heat to dissipate more rapidly into the atmosphere during the cooking process. This will generally extend the cooking time and, consequently, will typically require more fuel to complete the cooking process. Finally, it is not uncommon for “sssh” or other types of debris from a fire or other source to enter the contents of the canteen cup during the cooking process, thereby tainting or contaminating the contents of the canteen cup. All of these issues, while not insurmountable, may result in undesirable results.

[0010] Another concern is the somewhat problematic situation that can arise when trying to remove only a portion of the contents (e.g., liquids) from the canteen cup after the cooking process has been completed. For example, after boiling beans or noodles in the canteen cup, it is usually desirable to drain the water from the canteen cup so that the beans or noodles can be more easily served or eaten from the canteen cup. However, draining the water from the canteen cup while keeping the beans or noodles in the canteen cup presents a challenge. It is not uncommon for at least some of the beans or noodles to escape with the water or for some water to be retained in the canteen cup after cooking.

[0011] Accordingly, without some additional improvements in the state-of-the-art for canteens and the associated canteen cups, including the well-known military issue canteen, cooking with, access the contents of, and the consumption of the contents of the canteen cup will continue to be sub-optimal.

SUMMARY OF THE INVENTION

[0012] The apparatus of the present invention implements a canteen cup cover that, in at least one preferred embodiment, can be deployed in conjunction with the standard military issue canteen and cup. The canteen cup cover of the present invention is most preferably manufactured from a durable metallic material, such as stainless steel. The canteen cup cover has one or more integrated slit-like apertures and may be selectively placed over and removed from the canteen cup, thereby providing enhanced functionality for the canteen cup for certain cooking applications. In addition, the most preferred embodiments of the canteen cup cover comprise an integrated signaling mirror. A specific cooking method, using the canteen cup cover is also disclosed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The preferred embodiments of the present invention will hereinafter be described in conjunction with the appended wherein like designations denote like elements and:

[0014] FIG. 1 is a perspective view of a prior art canteen and canteen cup combination;

[0015] FIG. 2 is a top perspective view of a canteen cup cover in accordance with a preferred exemplary embodiment of the present invention;
FIG. 3 is a bottom perspective view of a canteen cup cover in accordance with a preferred exemplary embodiment of the present invention;

FIG. 4 is a method for cooking using a canteen cup cover in accordance with a preferred exemplary embodiment of the present invention; and

FIG. 5 is a perspective view of a prior art canteen fitted with a canteen cup cover in accordance with a preferred exemplary embodiment of the present invention.

DETAILED DESCRIPTION

The apparatus of the present invention implements a canteen cup cover that can be deployed in conjunction with the standard military issue canteen and cup. The canteen cup cover of the present invention is most preferably manufactured from a durable metallic material, such as stainless steel. The canteen cup cover has one or more integrated slit-like apertures and may be selectively placed over and removed from the canteen cup, thereby providing enhanced functionality for the canteen cup for certain cooking applications. In addition, the most preferred embodiments of the canteen cup cover comprise an integrated signaling mirror. A specific cooking method, using the canteen cup cover is also disclosed.

Referring now to FIG. 1, a standard military issue canteen 110 and cup 120 are shown. As shown in FIG. 1, the main body of canteen 110 is formed so as to be removable inserted into cup 120 whenever cup 120 is not in use. This allows cup 120 to be easily carried with canteen 110 and provides a certain ease of use when storing the combination of canteen 110 and cup 120. The combination of canteen 110 and canteen cup 120 are typically carried in a belt container that is worn around the hips of the user. In addition, it is common for cup 120 to be provided with a pair of wire handles 121 that can be used to hold cup 120 for drinking. Wire handles 121 are typically affixed to the body of cup 120 using one or more hinge configurations, thereby allowing wire handles 121 to be folded flat against the body of cup 120 when not in use.

Lid 130 is typically a screw-type lid that can be removed to provide access to the interior of canteen 110. In normal usage, lid 130 is removed from canteen 110 and a liquid is poured into canteen 110. Then, lid 130 is replaced, thereby securing the liquid contents of canteen 110. Whenever the user wants to disperse liquid from canteen 110, lid 130 is removed and the liquid contained within canteen 110 can be consumed directly from canteen 110 or poured into canteen cup 120 and then consumed from canteen cup 120. In either case, lid 130 will then be placed back into position on canteen 110.

Those skilled in the art will recognize that military style canteen cups 120 typically have a flared “lip” around the rim that protrudes outwardly from the body of canteen cup 120 at approximately a 45° angle. This lip serves several purposes. First, the outward protrusion of the lip provides an opening that is tapered and slightly larger at the top than at the bottom of canteen cup 120. This allows canteen 110 to be easily inserted into the open “mouth” portion of canteen cup 120. As canteen 110 is inserted into canteen cup 120 by exerting a slight downward pressure, the slightly narrowing body of canteen cup 120 will frictionally contact the surface of canteen 110, thereby providing a snug “bolster” for canteen 110. Additionally, the outwardly protruding lip or edge of canteen cup 120 provides a more functional drinking cup for the user of canteen cup 120.

Referring now to FIG. 2, a perspective view of the top surface of a canteen cup cover 210 in accordance with a preferred exemplary embodiment of the present invention is depicted. Canteen cup cover 210 is shown and positioned so as to be used in conjunction with canteen cup 120 of FIG. 1. As shown in FIG. 2, the most preferred embodiments of canteen cup cover 210 will also comprise a lid 215, a handle 220, a hanging aperture 230, a sidewall 240, and a plurality of strainer apertures 250.

In addition, for military canteens, the most preferred embodiments of canteen cup cover 210 will be substantially reformed in shape and will be formed with a lid 215 and a sidewall 240 and will be sized so as to fit sidewall 205 into canteen cup 120 with lid 215 substantially covering the opening of canteen cup 120. The size and shape of canteen cup cover 210 are selected so as to ensure that canteen cup cover 210 will fit snugly and tightly into the opening of canteen cup 120, thereby providing a relatively snug fit, if not a perfect seal. Sidewall 240 also defines a substantially reformed perimeter that substantially conforms to the interior contours of the opening of canteen cup 120. Those skilled in the art will recognize that other shapes for canteen cup cover 210 may be selected for use with other shapes of canteen cups. The depiction of a reformed canteen cup 120 and reformed canteen cup cover 210 are illustrative only and selected so as to demonstrate a single preferred embodiment.

Canteen cup cover 210 is most preferably manufactured from a material that is heat-resistant, durable, and lightweight, with the most preferred material being a stainless steel or similar material. Those skilled in the art will recognize that many insulative and non-insulative materials may be suitably employed for the fabrication of canteen cup cover 210. The use of a durable material in fabricating canteen cup cover 210 is desirable so as to permit long-term usage of canteen cup cover 210. The use of a heat-resistant material in fabricating canteen cup cover 210 is desirable so as to ensure that canteen cup cover 210 will be suitable for use when deployed in conjunction with canteen cup 120 in various cooking applications. The use of a relatively lightweight material is desirable so as to make the carrying of canteen cup cover 210 less burdensome. This is especially important for military applications where a soldier may be required to carry all of his or her equipment for an extended period of time or while traveling long distances.

Handle 220 is most preferably formed in lid 215. Handle 220 may be a separate piece of material affixed to lid 215 or it may be fabricated by extruding a portion of lid 215 as necessary to form handle 220. Additionally, the raised profile of handle 220 allows the user of canteen cup cover 210 to insert a fork, stick, or similar type of object through the aperture formed by lid 215 and handle 220, thereby providing for the removal of canteen cup cover 210, even when canteen cup cover 210 is very warm.

Hanging aperture 230 is most preferably a circular aperture that is formed in lid 215 of canteen cup cover 210. This allows the user of canteen cup cover 210 to attach a lanyard or cord to canteen cup cover 210, thereby allowing canteen cup cover 210 to be suspended from a hook, a branch, or the like. Additionally, if a cord or leather strap is attached to canteen cup cover 210 by hanging aperture 230, the cord or leather strap may be used to remove canteen cup cover 210 from canteen cup 120. Although shown as a circular aperture...
in FIG. 2, those skilled in the art will recognize that hanging aperture 230 may comprise any shape that is suitable for the intended use and no limitation on the size or shape of hanging aperture 230 is intended by the illustration of hanging aperture 230 as a circular aperture.

[0028] Strainer apertures 250 are fabricated so as to serve as an integrated strainer for those applications where canteen cup 120 of FIG. 1 is used as a cooking vessel. In the most preferred embodiments of the present invention, strainer apertures 250 are slit-like apertures that are formed in both a portion of lid 215 and a portion of sidewall 240. This provides for communication with both the interior of canteen cup 120 and the exterior of canteen cup 120. This allows fluids such as water and air to move freely between the interior of canteen cup 120 and the exterior of canteen cup 120 (and vice versa).

[0029] During the cooking process, liquid and/or food may be placed into canteen cup 120 and canteen cup cover 210 may be placed over canteen cup 120. Lid 215 rests on the lip of canteen cup 120, allowing for a metal-to-metal seal to be formed. Then, canteen cup 120 may be placed in contact or close proximity to a heat source, thereby transferring heat from the heat source to the contents of canteen cup 120. Canteen cup cover 210 will serve to keep more of the heat transferred from the heat source to the contents of canteen cup 120. This will serve to make the heating or cooking process more efficient, while reducing the amount of energy needed to heat or cook the contents of canteen cup 120. Additionally, canteen cup cover 210 may also serve to reduce or eliminate the introduction of foreign matter and objects into the interior of canteen cup 120.

[0030] Once canteen cup cover 210 has been placed over canteen cup 120 of FIG. 2, and the desired heating or cooking process has been completed, any undesired liquid may be drained from the interior of canteen cup 120 by simply rotating canteen cup 120, thereby allowing any undesired liquid contained in canteen cup 120 to be drained through strainer apertures 250 while any food items (e.g., beans, noodles, etc.) are retained in the interior of canteen cup 120. In addition, strainer apertures 250 may serve to allow steam or pressure to be vented from the interior of canteen cup 120 to the exterior of canteen cup 120, thereby preventing any undesirable pressure build-up. Those skilled in the art will appreciate that strainer apertures 250, although depicted as slit-like apertures in FIG. 2, may be replaced by circular apertures, mesh-like apertures, etc., without departing from the spirit or scope of the present invention.

[0031] Referring now to FIG. 3, a perspective view of the opposite side of canteen cup cover 210 of FIG. 2 is shown. As shown in FIG. 3, sidewall 240 extends along the perimeter of lid 215. The perimeter of sidewall 240 is slightly small than the perimeter of lid 215. This allows the formation of a "lip" with sidewall 240 extending into the interior of canteen cup 120 while lid 215 rests on the upper edge of the "mouth" or opening of canteen cup 120. This provides for a metal-to-metal seal to be formed.

[0032] A reflective surface 315, defined by the perimeter of sidewall 240, is provided for purposes of creating a signaling mirror. Reflective surface 315 is most preferably a surface with a highly polished mirror-like reflective metallic finish, suitable for use as a signal mirror. The fabrication of canteen cup cover 210 may comprise the step of polishing the bottom surface of lid 215 to achieve the desired level of reflectivity. Alternatively, reflective surface 315 may comprise a reflective mirror-like insert, suitable for use as a signal mirror and being affixed to canteen cup cover 210. In either case, by providing an integrated signal mirror, canteen cup cover 210 serves an additional purpose and may obviate the need for carrying a separate signal mirror.

[0033] Referring now to FIG. 4, a method 400 for using canteen cup cover 210 of FIG. 2 is shown. As shown in FIG. 4, the user will first place either liquid into the canteen cup (step 410) or some food item into the canteen cup (step 420). Once the desired contents have been placed into the canteen cup, the canteen cup cover can be placed over the contents of the canteen cup (step 430) and the contents of the canteen cup can be heated (step 440). Once the contents have been heated to the desired temperature for the desired period of time, any undesired liquid can be strained from the canteen cup (step 450).

[0034] Referring now to FIG. 5, the use of canteen cup cover 210 combined with canteen cup 120 is shown. With canteen cup cover 210 in place over the opening or "mouth" of canteen cup 120, any undesired liquid can be drained from the interior of canteen cup 120 by simply rotating the combined configuration. Providing that the manufacturing tolerances have been properly implemented, it will be possible to rotate the combined configuration a substantial distance without causing canteen cup cover 210 to be disengaged from canteen cup 120. Additionally, by increasing the height of sidewall 240, canteen cup cover 210 can be held in place through a significant degree of rotation and will remain firmly in place.

[0035] In summary, the present invention provides an effective and efficient means of providing a cover for a canteen cup, and enhancing the functionality of the canteen cup for certain cooking applications. The various preferred embodiments of the canteen cup cover of the present invention provide an integrated strainer for draining undesired liquids away from any food items contained in the canteen cup. Additionally, at least one preferred embodiment of the canteen cup cover of the present invention comprises an integrated signaling mirror.

[0036] Lastly, it should be appreciated that the illustrated embodiments are preferred exemplary embodiments only, and are not intended to limit the scope, applicability, or configuration of the present invention in any way. Rather, the foregoing detailed description provides those skilled in the art with a convenient road map for implementing a preferred exemplary embodiment of the present invention. Accordingly, it should be understood that various changes may be made in the function and arrangement of elements described in the exemplary preferred embodiments without departing from the spirit and scope of the present invention as set forth in the appended claims.

1. An apparatus comprising:
   a lid, said lid defining a lid perimeter;
   a sidewall integrally formed with said lid, said sidewall comprising a sidewall perimeter that is slightly smaller than said lid perimeter; and
   at least one strainer aperture formed in said lid.

2. The apparatus of claim 1 wherein said apparatus comprises a substantially reconfigurable canteen cup cover.

3. The apparatus of claim 1 wherein said apparatus comprises a stainless steel canteen cup cover.

4. The apparatus of claim 1 wherein said apparatus comprises a plurality of slit-like apertures.

5. The apparatus of claim 1 further comprising a handle affixed to said lid.
6. The apparatus of claim 1 wherein said apparatus further comprises at least one highly reflective mirror-like surface.

7. The apparatus of claim 1 wherein said apparatus further comprises at least one hanging aperture formed in said lid.

8. The apparatus of claim 1 wherein said apparatus further comprises:
   at least one hanging aperture formed in said lid; and
   a cord affixed to said canteen cup cover using said at least one hanging aperture.

9. The apparatus of claim 1 wherein said apparatus comprises a substantially reniform canteen cup cover and a plurality of slit-like apertures formed in said substantially reniform canteen cup cover.

10. A substantially reniform stainless steel canteen cup cover, said substantially reniform stainless steel canteen cup cover comprising:
    a lid, said lid defining a lid perimeter;
    a sidewall integrally formed with said lid, said sidewall comprising a sidewall perimeter that is slightly smaller than said lid perimeter;
    a plurality of slit-like apertures formed in said lid;
    at least one highly reflective mirror-like surface;
    a handle affixed to said lid;
    at least one hanging aperture formed in said lid; and
    a cord affixed to said canteen cup cover using said at least one hanging aperture.

11. A method comprising the steps of:
    placing a liquid into a canteen cup;
    placing a food item into said canteen cup;
    placing a canteen cup cover over said canteen cup, said canteen cup cover comprising at least one strainer aperture formed in said canteen cup cover;
    placing said canteen cup near a heat source, thereby heating said liquid and said food item; and
    removing at least a portion of said liquid from said canteen cup through said at least one strainer aperture.

12. The method of claim 11 wherein said canteen cup and said canteen cup cover comprise a substantially reniform canteen cup and a substantially reniform canteen cup cover.

13. The method of claim 11 wherein said canteen cup cover further comprises at least one hanging aperture formed in said canteen cup cover.

14. The method of claim 11 wherein said at least one strainer aperture comprises a plurality of strainer apertures.

15. The method of claim 11 wherein said at least one strainer aperture comprises a plurality of slit-like strainer apertures.

16. The method of claim 11 wherein said canteen cup cover further comprises:
    at least one hanging aperture formed in said canteen cup cover; and
    a cord affixed to said canteen cup cover using said at least one hanging aperture.

17. The method of claim 11 wherein said canteen cup cover further comprises at least one highly reflective mirror-like surface.

18. The method of claim 11 wherein said canteen cup cover further comprises a stainless steel canteen cup cover.

19. The method of claim 11 wherein said canteen cup cover further comprises a handle affixed to said canteen cup cover.

20. The method of claim 11 wherein said at least one strainer aperture comprises a plurality of slit-like apertures and wherein said canteen cup cover further comprises:
    a substantially reniform stainless steel canteen cup cover;
    at least one highly reflective mirror-like surface;
    a handle affixed to said canteen cup cover;
    at least one hanging aperture formed in said canteen cup cover; and
    a cord affixed to said canteen cup cover using said at least one hanging aperture.